Explanations of tables

IEC 61850	Function IEC 61850 name
IEC 60617	Function IEC 60617 name
ANSI	of function ANSI name
Category	INP=input; OUT=Output; CFG=Configuration; SET=Settings; MON=Monitoring; CTR=Control; TES=Test; INF=Information; VER=Version
IECName	Complete 61850 name of the data attribute (excluding the IED name)
CDC	Common data class of the data object according the IEC 61850-7-3
Type	Data attribute type (maximum length for strings)
FC	Functional constraint acording the IEC 61850: ST=Status, MX=Measurement, CO=Control, SP=Setting; SG=Setting group, CF=Configuration, EX=Extension
Access	ED2=Edition 2 only, ED1 edition 1 only, B=Basic, A=Advanced, P=Protocol only, H=LHMI only, O=Operator R/W, E=Engineer R/W, A= Administrator R/W, C=Coldboot, I=Application parameter re-init, #=Dependent on the product variant
Default	Default value of settings, inputs and version data, settings are in pu level
Dataset	Event handling default dataset
Event	Event handling: P=Protocol, H=LHMI, T=transient (no deactivation events)
CMT	MB=Modbus, DN=DNP, I1=IEC101, I3=IEC103
Parameter name	Parameter name in menus
Parameter desc	Parameter help in menus/ tooltip in PCM
Parameter range	Enumeration values; minimum and maximum in pu level
Menu path	Complete menu path
Channel relation	Relation to analog channel (if defined)

Protection LLN0

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Protection LLN0			INP	LD0.LLN0.Act2SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_2_ACT	Setting group 2 is active		Monitoring\Setting group\Outputs	
Protection LLN0			INP	LD0.LLN0.Act3SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_3_ACT	Setting group 3 is active		Monitoring\Setting group\Outputs	
Protection LLN0			INP	LD0.LLN0.Act4SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_4_ACT	Setting group 4 is active		Monitoring\Setting group\Outputs	
Protection LLN0			INP	LD0.LLN0.Act5SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_5_ACT	Setting group 5 is active		Monitoring\Setting group\Outputs	
Protection LLN0			INP	LD0.LLN0.Act6SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_6_ACT	Setting group 6 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.Act1SetGr.stVal	SPC	BOOLEAN	ST	B					SG_1_ACT	Setting group 1 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.Act2SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_2_ACT	Setting group 2 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.Act3SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_3_ACT	Setting group 3 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.Act4SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_4_ACT	Setting group 4 is active		Monitoring\Setting group\Outputs	

Protection LLN0			OUT	LD0.LLN0.Act5SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_5_ACT	Setting group 5 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.Act6SetGr.stVal	SPC	BOOLEAN	ST	B	0				SG_6_ACT	Setting group 6 is active		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.LgcSelSetGr.stVal	SPC	BOOLEAN	ST	ED2,B					SG_LOGIC_SEL	Logic selection for setting group		Monitoring\Setting group\Outputs	
Protection LLN0			OUT	LD0.LLN0.LgcSelGr.stVal	SPC	BOOLEAN	ST	ED1					SG_LOGIC_SEL	Logic selection for setting group		Monitoring\Setting group\Outputs	
Protection LLN0			CTR	LD0.LLN0.IndLEDRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3,I1	Indications and LEDs	Clear indication LEDs and texts	0=Cancel; 1=Clear	Clear\Clear	
Protection LLN0			CTR	LD0.LLN0.ProgLEDRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3,I1	Programmable LEDs	Clear programmable LEDs	0=Cancel; 1=Clear	Clear\Clear	
Protection LLN0			CTR	LD0.LLN0.MeasStatRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Metering records	Reset meterering minimum and maximum recorded data	0=Cancel; 1=Clear	Clear\Clear	
Protection LLN0			CTR	LD0.LLN0.PQRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Power quality data	Reset all power quality data	0=Cancel; 1=Clear	Clear\Clear	
Protection LLN0			CTR	LD0.LLN0.ActSetGr.Oper.ctlVal	INC	INT32	CO					MB,DN		(Active setting group)			
Device			CTR	LD0.LDEV1.ChgFlg.Oper.ctlVal	INC	INT32	CO							(Composition has changed)			
Device			CTR	LD0.LDEV1.WrmStrCmd.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Software reset	Reset of IED	0=Cancel; 1=Activate	Configuration\General	
Device			CTR			BOOLEAN		B,H	0				Factory setting	Restore Factory settings	0=Cancel; 1=Activate	Configuration\General	
Device			CTR	LD0.LDEV1.EvtLstClr.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Events	Clear events in HMI	0=Cancel; 1=Clear	Clear\Clear	
Protection LLN0			MON	LD0.LLN0.Beh.stVal	ENS	Enum	ST			StatIed	P,H	I3		(Behaviour)	1=on2=blocked3=test4=test/blocked5=off		
Protection LLN0			MON	LD0.LLN0.NamPlt.paramRev	LPL	INT32	ST			StatIed	P,H			(Name plate)			
Protection LLN0			MON	LD0.LLN0.NamPlt.valRev	LPL	INT32	ST			StatIed	P,H			(Name plate)			
Protection LLN0			MON	LD0.LLN0.SvMaxDl.mag.f	MV	FLOAT32	MX	B,#					Max delay	Maximum SMV delay during last minute	-1000.00...1000.00 ms	Monitoring\IED status\SMV traffic	
Protection LLN0			MON	LD0.LLN0.SvAvDl.mag.f	MV	FLOAT32	MX	B,#					Average delay	Average SMV delay during last minute	-1000.00...1000.00 ms	Monitoring\IED status\SMV traffic	

Protection LLN0			MON	LD0.LLN0.ParChgCnt.stVal	INS	INT32	ST	B				MB,DN	Setting changes	Number of setting changes	0...20000	Monitoring\IED status\Setting changes	
Protection LLN0			MON	LD0.LLN0.ParChgCnt.t	INS	Timestamp	ST	B					Setting time	Latest setting time		Monitoring\IED status\Setting changes	
Physical device			MON	LD0.LPHD1.PhyHealth.stVal	ENS	Enum	ST			StatIed	P,H	MB,DN		(General state)	-2=Waiting-1=Test1=Ok2=Warning3=Alarm		
Physical device			MON	LD0.LPHD1.PwrUp.stVal	SPS	BOOLEAN	ST			StatIed	P,H			(Power up detected)			
Device			MON	LD0.LDEV1.WrmStrDet.stVal	SPS	BOOLEAN	ST			StatIed	P,H			(Warm start detected)			
Device			MON	LD0.LDEV1.WacTrgDet.stVal	SPS	BOOLEAN	ST			StatIed	P,H			(Watchdog reset detected)			
Device			MON	LD0.LDEV1.DevWrn.stVal	ENS	Enum	ST	B		StatIed	P,H	MB,DN	Warning	IED warning	1=All ok; 2=System; 5=Time synch error; 6=Over temperature; 10=Watchdog reset; 11=Power down det.; 20=IEC 61850 error; 21=Modbus error; 22=DNP3 error; 23=PNIO error; 24=Dataset error; 25=Report cont. error; 26=GOOSE contr. error; 27=SCL config error; 28=Logic error; 29=SMT logic error; 30=GOOSE input error; 31=ACT error; 32=GOOSE rec. error; 33=AFL error; 34=SMV error; 35=Comm. channel down; 40=Unack card comp.; 85=ARC1 cont. light; 86=ARC2 cont. light; 87=ARC3 cont. light; 50=Protection comm.; 96=RTD card error,X130; 106=RTD meas. error,X130; 112=UPD voltage low,X115; 113=UPS comm. error,X115; 114=UPS cmd fail,X115; 115=Breaker oper. fail; 90=RTD card error,X105; 91=RTD card error,X115; 92=RTD card error,X000; 93=RTD card error,X100; 94=RTD card error,X110; 95=RTD card error,X120; 100=RTD meas. error,X105; 101=RTD meas. error,X115; 102=RTD meas. error,X000; 103=RTD meas. error,X100; 104=RTD meas. error,X110; 105=RTD meas. error,X120	Monitoring\IED status\Self-supervision	
Device			MON	LD0.LDEV1.DevFail.stVal	ENS	Enum	ST	B		StatIed	P,H	MB,DN,I3	Internal Fault	IED internal fault	1=All ok; 2=System error; 3=Runtime app. error; 4=Runtime exec error; 7=File system error; 8=Test; 10=SW watchdog error; 11=Uaux error; 32=Settings error; 43=SO-relay(s),X100; 44=SO-relay(s),X110; 46=SO-relay(s),X130; 53=PO-relay(s),X100; 54=PO-relay(s),X110; 56=PO-relay(s),X130; 57=Light sensor error; 62=Conf.error,X000; 63=Conf.error,X100; 64=Conf.error,X110; 65=Conf.error,X120;	Monitoring\IED status\Self-supervision	

																66=Conf.error,X130; 72=Card error,X000; 73=Card error,X100; 74=Card error,X110; 75=Card error,X120; 76=Card error,X130; 79=LHMI module; 80=RAM error; 81=ROM error; 82=EEPROM error; 83=FPGA error; 84=RTC error; 96=RTD card error,X130; 110=UPD card error,X115; 111=UPD self check,X115; 40=SO-relay(s),X105; 41=SO-relay(s),X115; 45=SO-relay(s),X120; 50=PO-relay(s),X105; 51=PO-relay(s),X115; 55=PO-relay(s),X120; 60=Conf.error,X105; 61=Conf.error,X115; 70=Card error,X105; 71=Card error,X115; 90=RTD card error,X105; 91=RTD card error,X115; 92=RTD card error,X000; 93=RTD card error,X100; 94=RTD card error,X110; 95=RTD card error,X120; 116=COM card error		
Device			MON	LD0.LDEV1.ChgAckCnt.stVal	INS	INT32	ST	A				MB,DN	No of comp. changes	Number of composition changes	0...100000	Monitoring\IED status\Composition changes	
Device			MON	LD0.LDEV1.WrmStrCmd.t	SPC	Timestamp	ST	B					Boot up time	IED boot up time		Monitoring\IED status\Self-supervision	
Protection LLN0			CFG	LD0.LLN0.OpModSetGr.setVal	ENG	Enum	SP	B	0				SG operation mode	Operation mode for setting group change	0=Operator; 1=Logic mode 1; 2=Logic mode 2	Configuration\Setting group	
Protection LLN0			CFG	LD0.LLN0.SetSvMaxDl.setVal	ENG	Enum	SP	B,I,#	1				SMV Max Delay	SMV Maximum allowed delay	0=1.90 1.58 ms; 1=3.15 2.62 ms; 2=4.40 3.67 ms; 3=5.65 4.71 ms; 4=6.90 5.75 ms	Configuration\System	
Customer information			CFG	LD0.LINF1.BayNam.setVal	VSG	VisString255 (20)	SP	ED2,B	REx615				Bay name	Bay name in system		Configuration\System	
Customer information			CFG	LD0.LINF1.NamPlt.eBayName	LPL	VisString255 (20)	EX	ED1	REx615				Bay name	Bay name in system		Configuration\System	
Device			CFG	LD0.LDEV1.IPAddr.setVal	VSG	VisString255 (20)	SP	ED2,B,C	192.168.2.10				IP address	IP address for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.NamPlt.eIp	LPL	VisString255 (20)	EX	ED1,C	192.168.2.10				IP address	IP address for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.IPAddrSubNtw.setVal	VSG	VisString255 (20)	SP	ED2,B,C	255.255.255.0				Subnet mask	Subnet mask for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.NamPlt.eIpSubNet	LPL	VisString255 (20)	EX	ED1,C	255.255.255.0				Subnet mask	Subnet mask for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.IPAddrGtw.setVal	VSG	VisString255 (20)	SP	ED2,B,C	192.168.2.1				Default gateway	Default gateway for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	

Device			CFG	LD0.LDEV1.NamPlt.eIpGateWay	LPL	VisString255 (20)	EX	ED1,C	192.168.2.1				Default gateway	Default gateway for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.IPAddrFrt.setVal	VSG	VisString255 (20)	SP	ED2,B	192.168.0.254				IP address	IP address for front port (fixed)		Configuration\Communication\Ethernet\Front port	
Device			CFG	LD0.LDEV1.NamPlt.eIpFront	LPL	VisString255 (20)	EX	ED1	192.168.0.254				IP address	IP address for front port (fixed)		Configuration\Communication\Ethernet\Front port	
Device			CFG	LD0.LDEV1.Mac1.setVal	VSG	VisString255 (20)	SP	ED2,B	XX-XX-XX-XX-XX-XX				Mac address	Mac address for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.NamPlt.eMacAddr	LPL	VisString255 (20)	EX	ED1	XX-XX-XX-XX-XX-XX				Mac address	Mac address for rear port(s)		Configuration\Communication\Ethernet\Rear port(s)	
Device			CFG	LD0.LDEV1.Mac2.setVal	VSG	VisString255 (20)	SP	ED2,B	XX-XX-XX-XX-XX-XX				Mac address	Mac address for front port		Configuration\Communication\Ethernet\Front port	
Device			CFG	LD0.LDEV1.NamPlt.eMacAddr1	LPL	VisString255 (20)	EX	ED1	XX-XX-XX-XX-XX-XX				Mac address	Mac address for front port		Configuration\Communication\Ethernet\Front port	
Device			CFG	LD0.LDEV1.WrmStrCmd.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Software reset	Reset of IED	0=Cancel; 1=Activate	Configuration\General	
Device			CFG			BOOLEAN		B,H	0				Factory setting	Restore Factory settings	0=Cancel; 1=Activate	Configuration\General	
Device			CFG	LD0.LDEV1.BlkMod.setVal	ENG	Enum	SP	B	1				Blocking mode	Behaviour for function BLOCK inputs	1=Freeze timer; 2=Block all; 3=Block OPERATE output	Configuration\System	
Device			CFG	LD0.LDEV1.HzSetSel.setVal	ENG	Enum	SP	B,I	1				Rated frequency	Rated frequency of the network	1=50Hz; 2=60Hz	Configuration\System	
Device			CFG	LD0.LDEV1.PhRotSet.setVal	ENG	Enum	SP	B,I	1				Phase rotation	Phase rotation order	1=ABC; 2=ACB	Configuration\System	
Device			CFG	LD0.LDEV1.DiVThres.setVal	ING	INT32	SP	B,I	16				Threshold voltage	Binary input threshold voltage	16...176 Vdc	Configuration\I/O modules\Common settings	
Device			CFG	LD0.LDEV1.DiOscThres.setVal	ING	INT32	SP	A,I	30				Input osc. level	Binary input oscillation suppression threshold	2...50 events/s	Configuration\I/O modules\Common settings	
Device			CFG	LD0.LDEV1.DiOscHys.setVal	ING	INT32	SP	A,I	10				Input osc. hyst	Binary input oscillation suppression hysteresis	2...50 events/s	Configuration\I/O modules\Common settings	
Device			CFG	LD0.LDEV1.PhOrdMod.setVal	ENG	Enum	SP	B,#	1				Phase order mode	Selection for phase connection order	1=ABC; 2=BCA; 3=CAB; 4=ACB; 5=CBA; 6=BAC	Configuration\System	
Device			CFG	LD0.LDEV1.ACrvSatPnt.setMag.f	ASG	FLOAT32	SP	A,I	50				IDMT Sat point	Overcurrent IDMT	10...50 I/I>	Configuration\System	

														saturation point			
Device			CFG	LD0.LDEV1.ADmdAvMod.setVal	ENG	Enum	SP	B,I	1				A demand Av mode	Current demand calculation method	1=Linear; 2=Logarithmic	Configuration\Measurements\Demand metering	
Device			CFG	LD0.LDEV1.MtrDmdItrv.setVal	ENG	Enum	SP	B,I	0				Demand interval	Interval for demand calculation	0=1 minute; 1=5 minutes; 2=10 minutes; 3=15 minutes; 4=30 minutes; 5=60 minutes; 6=180 minutes	Configuration\Measurements\Demand metering	
Device			CFG	LD0.LDEV1.HzAdpEna.setVal	SPG	BOOLEAN	SP	A,I,#	0				Frequency adaptivity	Enabling frequency adaptivity	0=Disable; 1=Enable	Configuration\System	
Device			CFG	LD0.LDEV1.LgtLivTm.setVal	ING	INT32	SP	B	3				Backlight timeout	LHMI backlight timeout	1...60 min	Configuration\HMI	
Device			CFG	LD0.LDEV1.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Time format	1=24H:MM:SS:MS; 2=12H:MM:SS:MS	Configuration\Time\System time	
Device			CFG	LD0.LDEV1.DateFrm.setVal	ENG	Enum	SP	B	1				Date format	Date format	1=DD.MM.YYYY; 2=DD/MM/YYYY; 3=DD-MM-YYYY; 4=MM.DD.YYYY; 5=MM/DD/YYYY; 6=YYYY-MM-DD; 7=YYYY-DD-MM; 8=YYYY/DD/MM	Configuration\Time\System time	
Device			CFG	LD0.LDEV1.NamConvn.setVal	ENG	Enum	SP	B	1				FB naming convention	FB naming convention used in IED	1=IEC61850; 2=IEC60617; 3=IEC-ANSI	Configuration\HMI	
Device			CFG	LD0.LDEV1.DftVw.setVal	ENG	Enum	SP	B	1				Default view	LHMI default view	1=Measurements; 2=Main menu; 3=SLD	Configuration\HMI	
Device			CFG	LD0.LDEV1.AcsMod.setVal	ENG	Enum	SP	B,H,C	3				Web HMI mode	Web HMI functionality	1=Active read only; 2=Active; 3=Disabled	Configuration\HMI	
Device			CFG	LD0.LDEV1.ConnExpTm.setVal	ING	INT32	SP	B	3				Web HMI timeout	Web HMI login timeout	1...60 min	Configuration\HMI	
Device			CFG	LD0.LDEV1.SLDSymFrm.setVal	ENG	Enum	SP	B	1				SLD symbol format	Single Line Diagram symbol format	1=IEC; 2=ANSI	Configuration\HMI	
Device			CFG	LD0.LDEV1.ScrDlTms.setVal	ING	INT32	SP	B	0				Autoscroll delay	Autoscroll delay for Measurements view	0...30 s	Configuration\HMI	
Device			CFG	LD0.LDEV1.ClsDlMod.setVal	ENG	Enum	SP	B	2				Close delay mode	Selection for using delayed LHMI close	1=In use; 2=Not in use	Configuration\Control\LHMI	
Device			CFG	LD0.LDEV1.ClsDlTms.setVal	ING	INT32	SP	B	60				Close delay	Delay for close done from LHMI	5...900 s	Configuration\Control\LHMI	
Device			CFG	LD0.LDEV1.SetVsb.setVal	ENG	Enum	SP	B,H	2				Setting visibility	Setting visibility for HMI	1=Basic; 2=Advanced	Configuration\HMI	
Protection LLN0			SET	LD0.LLN0.SGCB.ActSG	SGCB	INT8U	SP	B	1				Active group	Selected active group	-	-	

Protection LLN0			SET	LD0.LLN0.SGCB.EditSG	SGCB	INT8U	SP	B,A	1				Edit group	Selected edit group	-	-	
Protection LLN0			SET	LD0.LLN0.SGCB.CnfEdit	SGCB	BOOLEAN	SP	B,A	0				Commit settings	Commit or reject the edit copy	-	-	
Protection LLN0			SET			Enum		B,H	1				Copy group 1	Copy setting group 1 values into selected group	1=Cancel; 2=Copy 1 into 2; 3=Copy 1 into 3; 4=Copy 1 into 4; 5=Copy 1 into 5; 6=Copy 1 into 6; 99=Copy 1 into all	Settings\Setting group	
Protection LLN0			TES	LD0.LLN0.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Test mode	Test mode	1=Normal mode; 2=IED blocked; 3=IED test; 4=IED test and blocked	Tests\IED test	
Device			TES	LD0.LDEV1.FailTest.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				Internal fault test	Internal fault test mode	0=Test off; 1=Test on	Tests\IED test	
Device			TES	LD0.LDEV1.ModRemCtl.setVal	ENG	Enum	SP	A,H	1				Remote test mode	Authority for remote activation of test mode	1=Off; 2=Maintenance; 3=All levels	Tests\IED test	
Physical device			INF	LD0.LPHD1.PhyNam.hwRev	DPL	VisString255 (20)	DC	B	X				HW revision	IED HW revision		Information\Product identifiers	
Physical device			INF	LD0.LPHD1.PhyNam.swRev	DPL	VisString255 (20)	DC	B	X.X				SW version	IED SW version		Information\Product identifiers	
Physical device			INF	LD0.LPHD1.PhyNam.serNum	DPL	VisString255 (20)	DC	B	1XXXXXXXXXXX				Serial number	IED serial number		Information\Product identifiers	
Physical device			INF	LD0.LPHD1.PhyNam.model	DPL	VisString255 (20)	DC	B	REx615				Type	IED type		Information\Product identifiers	
Physical device			INF	LD0.LPHD1.PhyNam.name	DPL	VisString64	DC	B	TIGER				Technical key	Technical key set by tool		Information\System identifiers	
Customer information			INF	LD0.LINF1.CfgNam.setVal	VSG	VisString255 (20)	SP	ED2,B	FE+DE+ME+TE+UE+VE+GE				Configuration name	IED configuration name		Information\Product identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eConfName	LPL	VisString255 (20)	EX	ED1	FE+DE+ME+TE+UE+VE+GE				Configuration name	IED configuration name		Information\Product identifiers	
Customer information			INF	LD0.LINF1.DevRev.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Product version	Product version number		Information\Product identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eDevRev	LPL	VisString255 (64)	EX	ED1	0				Product version	Product version number		Information\Product identifiers	
Customer information			INF	LD0.LINF1.CstNam.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Customer name	Name of the customer		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eCustomer	LPL	VisString255 (64)	EX	ED1	0				Customer name	Name of the customer		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstStNam.setVal	VSG	VisString255 (64)	SP	ED2,B	0				State	Name of state		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eState	LPL	VisString255 (64)	EX	ED1	0				State	Name of state		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstStreNam.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Street	Name of the street		Information\Site identifiers	

Customer information			INF	LD0.LINF1.NamPlt.eStreet	LPL	VisString255 (64)	EX	ED1	0				Street	Name of the street		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstHouNum.setVal	VSG	VisString255 (64)	SP	ED2,B	0				House number	Number of the house		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eHouseNum	LPL	VisString255 (64)	EX	ED1	0				House number	Number of the house		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstZip.setVal	VSG	VisString255 (20)	SP	ED2,B	0				ZIP/Postal code	ZIP/Postal code		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eZip	LPL	VisString255 (20)	EX	ED1	0				ZIP/Postal code	ZIP/Postal code		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstCityNam.setVal	VSG	VisString255 (64)	SP	ED2,B	0				City/Province	City/Province		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eCity	LPL	VisString255 (64)	EX	ED1	0				City/Province	City/Province		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CstCntyNam.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Country	Name of the country		Information\Site identifiers	
Customer information			INF	LD0.LINF1.NamPlt.eCountry	LPL	VisString255 (64)	EX	ED1	0				Country	Name of the country		Information\Site identifiers	
Customer information			INF	LD0.LINF1.CardNam.hwRev	DPL	VisString255 (20)	DC	B	X				HW revision	Card HW revision		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.CardNam.swRev	DPL	VisString255 (20)	DC	B	A				SW version	Card SW version		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.CardNam.serNum	DPL	VisString255 (20)	DC	B	1XXXXXXXXXXX				Serial number	Card serial number		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.CardNam.model	DPL	VisString255 (20)	DC	B	2RAAXXXXXX				Article number	IED article number		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\Main board	
Customer information			INF	LD0.LINF1.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\Main board	
Device			INF	LD0.LDEV1.SwrNum.stVal	VSS	VisString255 (20)	ST	ED2,B					SW number	IED SW number		Information\Product identifiers	
Device			INF	LD0.LDEV1.NamPlt.eSwNum	LPL	VisString255 (20)	EX	ED1					SW number	IED SW number		Information\Product identifiers	
Device			INF	LD0.LDEV1.SwrNum.t	VSS	Timestamp	ST	ED2,B					SW date	IED SW date		Information\Product identifiers	
Device			INF	LD0.LDEV1.NamPlt.eSwDate	LPL	VisString255 (20)	EX	ED1					SW date	IED SW date		Information\Product identifiers	
Device			INF	LD0.LDEV1.OrdrNum.stVal	VSS	VisString255 (20)	ST	ED2,B					Order code	IED order code		Information\Product identifiers	
Device			INF	LD0.LDEV1.NamPlt.eOrdNum	LPL	VisString255 (64)	EX	ED1					Order code	IED order code		Information\Product identifiers	

Device			INF	LD0.LDEV1.OrdrNum.t	VSS	Timestamp	ST	ED2,B					Production date	IED production date		Information\Product identifiers	
Device			INF	LD0.LDEV1.NamPlt.eProdDate	LPL	VisString255 (20)	EX	ED1					Production date	IED production date		Information\Product identifiers	
Protection LLN0			VER	LD0.LLN0.NamPlt.swRev	LPL	VisString255 (20)	DC		G					(Name plate)			
Protection LLN0			VER	LD0.LLN0.NamPlt.ldNs	LPL	VisString255 (20)	EX		IEC 61850-7-4:2007 IEC 61850-7-4:2003					(Name plate)			
Physical device			VER	LD0.LPHD1.PhyNam.swRev	DPL	VisString255 (20)	DC	B	X.X				SW version	IED SW version		Information\Product identifiers	
Customer information			VER	LD0.LINF1.CardNam.swRev	DPL	VisString255 (20)	DC	B	A				SW version	Card SW version		Information\HW modules\Main board	

Security application

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Security application			CFG			BOOLEAN		B,H,OR,ER,AW	1				Local override	Disable authority		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRem.setVal	SPG	BOOLEAN	SP	B,OR,ER,AW	1				Remote override	Disable authority		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthAcsLev.setVal	ENG	Enum	SP	A	1				Authority logging	Authority logging level	1=None; 2=Configuration change; 3=Setting group; 4=Setting group, control; 5=Settings edit; 6=All	Configuration\Authorization\Security	
Security application			CFG			BOOLEAN		A,H,OR,ER,AW	1				Secure Communication	Secure Communication		Configuration\Authorization\Security	
Security application			CFG	LD0.GSAL1.RemUpdEna.setVal	SPG	BOOLEAN	SP	B,OR,ER,AW	0				Remote Update	Remote update	0=Disable; 1=Enable	Configuration\Authorization\Security	
Security application			CFG			VisString255 (64)		ED2,B,H	0				Local administrator	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthLoc.pwdAdmin		VisString255 (64)		ED1,OR,ER,AW	0				Local administrator	Set password		Configuration\Authorization\Passwords	
Security application			CFG			VisString255 (64)		ED2,B,H	0				Local engineer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthLoc.pwdEng		VisString255 (64)		ED1,OR,ER,AW	0				Local engineer	Set password		Configuration\Authorization\Passwords	
Security application			CFG			VisString255 (64)		ED2,B,H	0				Local operator	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthLoc.pwdOper		VisString255 (64)		ED1,OR,ER,AW	0				Local operator	Set password		Configuration\Authorization\Passwords	
Security application			CFG			VisString255 (64)		ED2,B,H	0				Local viewer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthLoc.pwdView		VisString255 (64)		ED1,OR,ER,AW	0				Local viewer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRemAdm.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Remote administrator	Set password		Configuration\Authorization\Passwords	

Security application			CFG	LD0.GSAL1.AuthRem.pwdAdmin	SPG	VisString255 (64)	EX	ED1,OR,ER,AW	0				Remote administrator	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRemEng.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Remote engineer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRem.pwdEng	SPG	VisString255 (64)	EX	ED1,OR,ER,AW	0				Remote engineer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRemOpr.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Remote operator	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRem.pwdOper	SPG	VisString255 (64)	EX	ED1,OR,ER,AW	0				Remote operator	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRemVw.setVal	VSG	VisString255 (64)	SP	ED2,B	0				Remote viewer	Set password		Configuration\Authorization\Passwords	
Security application			CFG	LD0.GSAL1.AuthRem.pwdView	SPG	VisString255 (64)	EX	ED1,OR,ER,AW	0				Remote viewer	Set password		Configuration\Authorization\Passwords	
Security application			VER	LD0.GSAL1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	H					(Name plate)			

Device

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Device			INF	LD0.IHMI1.CardNam.hwRev	DPL	VisString255 (20)	DC	B	X				HW revision	Card HW revision		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.CardNam.swRev	DPL	VisString255 (20)	DC	B	A				SW version	Card SW version		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.CardNam.serNum	DPL	VisString255 (20)	DC	B	1XXXXXXXXXXX				Serial number	Card serial number		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.CardNam.model	DPL	VisString255 (20)	DC	B	2RAAXXXXXX				Article number	LHMI article number		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\LHMI	
Device			INF	LD0.IHMI1.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\LHMI	
Device			VER	LD0.IHMI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	H					(Name plate)			
Device			VER	LD0.IHMI1.CardNam.swRev	DPL	VisString255 (20)	DC	B	A				SW version	Card SW version		Information\HW modules\LHMI	

INRPHAR1: Three-phase inrush detector

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
INRPHAR1	3I2f>(1)	68(1)	INP	LD0.INRPHAR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block input status		Monitoring\I/O status\Current protection\INRPHAR1\Inputs	
INRPHAR1	3I2f>(1)	68(1)	OUT	LD0.INRPHAR1.Str.general	ACD	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	BLK2H	Second harmonic based block	(A,B,C)	Monitoring\I/O status\Current protection\INRPHAR1\Outputs	
INRPHAR1	3I2f>(1)	68(1)	MON	LD0.INRPHAR1.Beh.stVal	ENS	Enum	ST	B					INRPHAR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
INRPHAR1	3I2f>(1)	68(1)	SET	LD0.INRPHAR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\INRPHAR1	
INRPHAR1	3I2f>(1)	68(1)	SET	LD0.INRPHAR1.PhStr.setMag.f	ASG	FLOAT32	SG	B	20				Start value	Ratio of the 2. to the 1. harmonic leading to restraint	5...100 %	Settings\Settings\Current protection\INRPHAR1	

INRPHAR1	3I2f>(1)	68(1)	SET	LD0.INRPHAR1.OpDlTmms.setVal	ING	INT32	SG	B	20				Operate delay time	Operate delay time	20...60000 ms	Settings\Settings\Current protection\INRPHAR1	
INRPHAR1	3I2f>(1)	68(1)	SET	LD0.INRPHAR1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\INRPHAR1	
INRPHAR1	3I2f>(1)	68(1)	TES	LD0.INRPHAR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				INRPHAR1	Test control for outputs	0=Reset; 35=Activate BLK2H; 36=Deactive BLK2H	Tests\Function tests\Current protection	
INRPHAR1	3I2f>(1)	68(1)	VER	LD0.INRPHAR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

CBPSOF1: Switch on to fault

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CBPSOF1	SOTF(1)	SOTF(1)	INP	LD0.CBPSOF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Other protection\CBPSOF1\Inputs	
CBPSOF1	SOTF(1)	SOTF(1)	INP	LD0.CBPSOF1.InStr.stVal	SPS	BOOLEAN	ST	B	0				START	Start from function to be accelerated by SOTF		Monitoring\I/O status\Other protection\CBPSOF1\Inputs	
CBPSOF1	SOTF(1)	SOTF(1)	INP	LD0.CBPSOF1.InDlStr.stVal	SPS	BOOLEAN	ST	B	0				START_DLYD	Start from function to be accelerated with delay by SOTF		Monitoring\I/O status\Other protection\CBPSOF1\Inputs	
CBPSOF1	SOTF(1)	SOTF(1)	INP	LD0.CBPSOF1.InCBCls.stVal	SPS	BOOLEAN	ST	B	0				CB_CL_CMD	External enabling of SOTF by CB close command		Monitoring\I/O status\Other protection\CBPSOF1\Inputs	
CBPSOF1	SOTF(1)	SOTF(1)	OUT	LD0.CBPSOF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\CBPSOF1\Outputs	
CBPSOF1	SOTF(1)	SOTF(1)	MON	LD0.CBPSOF1.Beh.stVal	ENS	Enum	ST	B					CBPSOF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
CBPSOF1	SOTF(1)	SOTF(1)	SET	LD0.CBPSOF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\CBPSOF1	
CBPSOF1	SOTF(1)	SOTF(1)	SET	LD0.CBPSOF1.RsDlTmms.setVal	ING	INT32	SG	A	1000				SOTF reset time	SOTF detection period after initialization	0...60000 ms	Settings\Settings\Other protection\CBPSOF1	
CBPSOF1	SOTF(1)	SOTF(1)	SET	LD0.CBPSOF1.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Time delay for start input	0...60000 ms	Settings\Settings\Other protection\CBPSOF1	
CBPSOF1	SOTF(1)	SOTF(1)	TES	LD0.CBPSOF1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				CBPSOF1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
CBPSOF1	SOTF(1)	SOTF(1)	VER	LD0.CBPSOF1.NamPlt.swRev	LPL	VisString255 (20)	DC		B					(Name plate)			

X100 (PSM)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO1.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-PO1	Connectors 6-7		Monitoring\I/O status\Binary output values\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO2.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-PO2	Connectors 8-9		Monitoring\I/O status\Binary output values\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO3.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-SO1	Connectors 10c-11nc-12no		Monitoring\I/O status\Binary output values\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO4.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-SO2	Connectors 13c-14no		Monitoring\I/O status\Binary output values\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO5.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-PO3	Connectors 15-17/18-19		Monitoring\I/O status\Binary output values\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INP	LD0.XGGIO100.SPCSO6.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X100-PO4	Connectors 20-22/23-24		Monitoring\I/O status\Binary output values\X100 (PSM)	

X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-PO1	Connectors 6-7		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-PO2	Connectors 8-9		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-SO1	Connectors 10c-11nc-12no		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-SO2	Connectors 13c-14no		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-PO3	Connectors 15-17/18-19		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	TES	LD0.XGGIO100.SPCSO6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X100-PO4	Connectors 20-22/23-24		Tests\Binary outputs\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	INF	LD0.XGGIO100.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X100 (PSM)	
X100 (PSM)	X100 (PSM)	X100 (PSM)	VER	LD0.XGGIO100.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			
X100 (PSM)	X100 (PSM)	X100 (PSM)	VER	LD0.XGGIO100.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

Programmable LEDs

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Programmable LEDs			INP	LD0.LEDGGIO1.Alm1.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 1		Monitoring\Programmable LEDs\Inputs\LED 1	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm2.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 2		Monitoring\Programmable LEDs\Inputs\LED 2	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm3.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 3		Monitoring\Programmable LEDs\Inputs\LED 3	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm4.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 4		Monitoring\Programmable LEDs\Inputs\LED 4	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm5.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 5		Monitoring\Programmable LEDs\Inputs\LED 5	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm6.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 6		Monitoring\Programmable LEDs\Inputs\LED 6	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm7.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 7		Monitoring\Programmable LEDs\Inputs\LED 7	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm8.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 8		Monitoring\Programmable LEDs\Inputs\LED 8	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm9.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 9		Monitoring\Programmable LEDs\Inputs\LED 9	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm10.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 10		Monitoring\Programmable LEDs\Inputs\LED 10	
Programmable LEDs			INP	LD0.LEDGGIO1.Alm11.stVal	SPS	BOOLEAN	ST	B	0				ALARM	Alarm input for LED 11		Monitoring\Programmable LEDs\Inputs\LED 11	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 1		Monitoring\Programmable LEDs\Inputs\LED 1	

Programmable LEDs			INP	LD0.LEDGGIO1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 2		Monitoring\Programmable LEDs\Inputs\LED 2	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 3		Monitoring\Programmable LEDs\Inputs\LED 3	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 4		Monitoring\Programmable LEDs\Inputs\LED 4	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 5		Monitoring\Programmable LEDs\Inputs\LED 5	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 6		Monitoring\Programmable LEDs\Inputs\LED 6	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 7		Monitoring\Programmable LEDs\Inputs\LED 7	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 8		Monitoring\Programmable LEDs\Inputs\LED 8	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind9.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 9		Monitoring\Programmable LEDs\Inputs\LED 9	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind10.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 10		Monitoring\Programmable LEDs\Inputs\LED 10	
Programmable LEDs			INP	LD0.LEDGGIO1.Ind11.stVal	SPS	BOOLEAN	ST	B	0				OK	Ok input for LED 11		Monitoring\Programmable LEDs\Inputs\LED 11	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED1.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 1		Monitoring\Programmable LEDs\Inputs\LED 1	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED2.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 2		Monitoring\Programmable LEDs\Inputs\LED 2	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED3.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 3		Monitoring\Programmable LEDs\Inputs\LED 3	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED4.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 4		Monitoring\Programmable LEDs\Inputs\LED 4	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED5.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 5		Monitoring\Programmable LEDs\Inputs\LED 5	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED6.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 6		Monitoring\Programmable LEDs\Inputs\LED 6	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED7.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 7		Monitoring\Programmable LEDs\Inputs\LED 7	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED8.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 8		Monitoring\Programmable LEDs\Inputs\LED 8	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED9.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 9		Monitoring\Programmable LEDs\Inputs\LED 9	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED10.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 10		Monitoring\Programmable LEDs\Inputs\LED 10	
Programmable LEDs			INP	LD0.LEDGGIO1.InRsLED11.stVal	SPS	BOOLEAN	ST	B	0				RESET	Reset input for LED 11		Monitoring\Programmable LEDs\Inputs\LED 11	
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt1.Oper.ctlVal	ENC	INT32	CO							(LED 1)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt2.Oper.ctlVal	ENC	INT32	CO							(LED 2)			

Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt3.Oper.ctlVal	ENC	INT32	CO							(LED 3)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt4.Oper.ctlVal	ENC	INT32	CO							(LED 4)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt5.Oper.ctlVal	ENC	INT32	CO							(LED 5)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt6.Oper.ctlVal	ENC	INT32	CO							(LED 6)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt7.Oper.ctlVal	ENC	INT32	CO							(LED 7)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt8.Oper.ctlVal	ENC	INT32	CO							(LED 8)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt9.Oper.ctlVal	ENC	INT32	CO							(LED 9)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt10.Oper.ctlVal	ENC	INT32	CO							(LED 10)			
Programmable LEDs			CTR	LD0.LEDGGIO1.LEDSt11.Oper.ctlVal	ENC	INT32	CO							(LED 11)			
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt1.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 1	Status of programmable LED 1	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt2.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 2	Status of programmable LED 2	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt3.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 3	Status of programmable LED 3	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt4.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 4	Status of programmable LED 4	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt5.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 5	Status of programmable LED 5	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt6.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 6	Status of programmable LED 6	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt7.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 7	Status of programmable LED 7	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt8.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 8	Status of programmable LED 8	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt9.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 9	Status of programmable LED 9	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt10.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 10	Status of programmable LED 10	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			MON	LD0.LEDGGIO1.LEDSt11.stVal	ENC	Enum	ST	B		StatIO	P	MB,DN,I3,I1	Programmable LED 11	Status of programmable LED 11	0=None; 1=Ok; 3=Alarm	Monitoring\Programmable LEDs\Monitored data	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt1.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 1				Description	Programmable LED description		Configuration\Programmable LEDs\LED 1	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt1.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 1				Description	Programmable LED description		Configuration\Programmable LEDs\LED 1	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt2.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 2				Description	Programmable LED description		Configuration\Programmable LEDs\LED 2	

Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt2.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 2				Description	Programmable LED description		Configuration\Programmable LEDs\LED 2	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt3.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 3				Description	Programmable LED description		Configuration\Programmable LEDs\LED 3	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt3.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 3				Description	Programmable LED description		Configuration\Programmable LEDs\LED 3	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt4.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 4				Description	Programmable LED description		Configuration\Programmable LEDs\LED 4	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt4.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 4				Description	Programmable LED description		Configuration\Programmable LEDs\LED 4	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt5.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 5				Description	Programmable LED description		Configuration\Programmable LEDs\LED 5	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt5.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 5				Description	Programmable LED description		Configuration\Programmable LEDs\LED 5	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt6.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 6				Description	Programmable LED description		Configuration\Programmable LEDs\LED 6	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt6.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 6				Description	Programmable LED description		Configuration\Programmable LEDs\LED 6	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt7.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 7				Description	Programmable LED description		Configuration\Programmable LEDs\LED 7	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt7.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 7				Description	Programmable LED description		Configuration\Programmable LEDs\LED 7	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt8.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 8				Description	Programmable LED description		Configuration\Programmable LEDs\LED 8	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt8.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 8				Description	Programmable LED description		Configuration\Programmable LEDs\LED 8	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt9.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 9				Description	Programmable LED description		Configuration\Programmable LEDs\LED 9	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt9.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 9				Description	Programmable LED description		Configuration\Programmable LEDs\LED 9	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt10.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 10				Description	Programmable LED description		Configuration\Programmable LEDs\LED 10	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt10.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 10				Description	Programmable LED description		Configuration\Programmable LEDs\LED 10	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt11.dU	ENC	Unicode255	DC	ED2,B	Programmable LEDs LED 11				Description	Programmable LED description		Configuration\Programmable LEDs\LED 11	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSt11.d	ENC	VisString255 (64)	DC		Programmable LEDs LED 11				Description	Programmable LED description		Configuration\Programmable LEDs\LED 11	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq1.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 1	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 1	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq2.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 2	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 2	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq3.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 3	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 3	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq4.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 4	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 4	

Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq5.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 5	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 5	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq6.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 6	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 6	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq7.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 7	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 7	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq8.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 8	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 8	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq9.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 9	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 9	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq10.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 10	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 10	
Programmable LEDs			CFG	LD0.LEDGGIO1.LEDSeq11.setVal	ENG	Enum	SP	B,I	0				Alarm mode	Alarm mode for programmable LED 11	0=Follow-S; 1=Follow-F; 2=Latched-S; 3=LatchedAck-F-S	Configuration\Programmable LEDs\LED 11	
Programmable LEDs			CFG	LD0.LEDGGIO1.AlmColr.setVal	ENG	Enum	SP	B,I	2				Alarm colour	Colour for the alarm state of the LED	1=Green; 2=Red	Configuration\Programmable LEDs\General	
Programmable LEDs			VER	LD0.LEDGGIO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

GSELPRT1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
GSELPRT1	GSE	GSE	OUT	LD0.GSELPRT1.Alm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Receiver Alarm general		Monitoring\I/O status\Communication\GSELPRT1\Outputs	
GSELPRT1	GSE	GSE	CTR	LD0.GSELPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets GOOSE diagnostics counters		Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.FrRxCnt.stVal	INS	INT32	ST	B					Received msgs	Received GOOSE messages.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted msgs	Transmitted GOOSE messages.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.RxStCnt.stVal	INS	INT32	ST	B					State changes	Received GOOSE state changes.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.RxSeqCnt.stVal	INS	INT32	ST	B					SeqNum changes	Received GOOSE sequence number changes.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.RxTestCnt.stVal	INS	INT32	ST	B					Test msgs	Received GOOSE messages with test bit set to TRUE.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.StWrnCnt.stVal	INS	INT32	ST	B					State warnings	State number miss or disorder in GOOSE message reception.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.SeqWrnCnt.stVal	INS	INT32	ST	B					Seq. warnings	Sequence number miss or disorder in GOOSE message reception.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.RxTmOutCnt.stVal	INS	INT32	ST	B					Recv. timeouts	Receiver timeouts. Goose messages were not received in defined time.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.ConfErrCnt.stVal	INS	INT32	ST	B					ConfRev errors	Received configuration revision mismatched GOOSE messages.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.NdsComCnt.stVal	INS	INT32	ST	B					NdsComm errors	Received GOOSE messages with Needs Commissioning bit set to TRUE.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	

GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.DSErrCnt.stVal	INS	INT32	ST	B					Dataset errors	Received dataset mismatched GOOSE messages.	0...10000000	Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	MON	LD0.GSELPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets GOOSE diagnostics counters		Monitoring\I/O status\Communication\GSELPRT1\Monitoring	
GSELPRT1	GSE	GSE	VER	LD0.GSELPRT1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

61850-8-1 MMS

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
61850-8-1 MMS			OUT	LD0.MMSLPRT1.ChLiv.stVal	SPS	BOOLEAN	ST	B					CHLIV	MMS Communication status (True = OK, False = No connections)		Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			CTR	LD0.MMSLPRT1.SetCnfMod.Oper.ctlVal	SPC	BOOLEAN	CO	I						(Setting group editing mode)			
61850-8-1 MMS			CTR	LD0.MMSLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset MMS counters		Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.SucConn.stVal	INS	INT32	ST	B					Successful conn.	MMS successful connections	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.FailConn.stVal	INS	INT32	ST	B					Failed conn.	MMS failed connections	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.ConcCnt.stVal	INS	INT32	ST	B					Concludes	MMS concludes	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.TxAbtCnt.stVal	INS	INT32	ST	B					Sent aborts	MMS sent aborts	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.RxAbtCnt.stVal	INS	INT32	ST	B					Recv. aborts	MMS received aborts	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.TxRejCnt.stVal	INS	INT32	ST	B					Sent rejects	MMS sent rejects	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.RxRqCnt.stVal	INS	INT32	ST	B					Recv. requests	MMS received requests	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.FailRqCnt.stVal	INS	INT32	ST	B					Failed requests	MMS failed requests	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.SucReaCnt.stVal	INS	INT32	ST	B					Reads	MMS successful reads	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.FailReaCnt.stVal	INS	INT32	ST	B					Failed reads	MMS failed reads	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.SucWrCnt.stVal	INS	INT32	ST	B					Writes	MMS successful writes	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.FailWrCnt.stVal	INS	INT32	ST	B					Failed writes	MMS failed writes	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.InfRpCnt.stVal	INS	INT32	ST	B					Reports	MMS Information reports	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.ActConnCnt.stVal	INS	INT32	ST	B					Active conn.	MMS active connections	0...10000000	Monitoring\Communication\MMSLPRT1	
61850-8-1 MMS			MON	LD0.MMSLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset MMS counters		Monitoring\Communication\MMSLPRT1	

61850-8-1 MMS			CFG	LD0.MMSLPRT1.UnitMod.setVal	ENG	Enum	SP	B,C	0				Unit mode	IEC 61850-8-1 unit mode	1=Primary; 0=Nominal	Configuration\Communication\MMSLPRT1	
61850-8-1 MMS			INF	LD0.MMSLPRT1.NamPlt.d	LPL	VisString255 (64)	DC	B	Edition 2				IEC 61850 version	IEC 61850 version selection		Information\System identifiers	
61850-8-1 MMS			VER	LD0.MMSLPRT1.NamPlt.swRev	LPL	VisString255 (20)	DC		E					(Name plate)			

GNRLLTMS1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
GNRLLTMS1	TSYNC(1)	TSYNC(1)	OUT	LD0.GNRLLTMS1.Alm.stVal	SPS	BOOLEAN	ST	ED2						(Alarm)			
GNRLLTMS1	TSYNC(1)	TSYNC(1)	OUT	LD0.GNRLLTMM1.Alm.stVal	SPS	BOOLEAN	ST	ED1						(Alarm)			
GNRLLTMS1	TSYNC(1)	TSYNC(1)	OUT	LD0.GNRLLTMS1.Wrn.stVal	SPS	BOOLEAN	ST	ED2						(Warning)			
GNRLLTMS1	TSYNC(1)	TSYNC(1)	OUT	LD0.GNRLLTMM1.Wrn.stVal	SPS	BOOLEAN	ST	ED1						(Warning)			
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.TmAcc.stVal	INS	INT32	ST	ED2,B					Synch accuracy	Number of significant bits in the Fraction Of Second in the time accuracy part of the time stamp.	0...128	Monitoring\IED status\Time synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.TmAcc.stVal	INS	INT32	ST	ED1					Synch accuracy	Number of significant bits in the Fraction Of Second in the time accuracy part of the time stamp.	0...128	Monitoring\IED status\Time synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.TmSyn.stVal	ENS	Enum	ST	ED2,B,#		StatIed	P,H	MB,DN	SMV Synch accuracy	Time synchronized according to IEC 61850-9-2	0=No sync; 1=Local clock; 2=Global clock	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.TmSyn.stVal	ENS	Enum	ST	ED1		StatIed	P,H	MB,DN	SMV Synch accuracy	Time synchronized according to IEC 61850-9-2	0=No sync; 1=Local clock; 2=Global clock	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.TmChSt1.stVal	SPS	BOOLEAN	ST	ED2,B		StatIed	P,H	MB,DN,I3	Synch status	Time channel status (up/down)	0=Down; 1=Up	Monitoring\IED status\Time synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.TmChSt1.stVal	SPS	BOOLEAN	ST	ED1		StatIed	P,H	MB,DN,I3	Synch status	Time channel status (up/down)	0=Down; 1=Up	Monitoring\IED status\Time synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.TmSrcSt.stVal	ENS	Enum	ST	ED2,B		StatIed	P,H	MB,DN	Synch source	Current time source	0=Not defined; 1=SNTP primary; 2=SNTP secondary; 3=SNTP tertiary or further; 4=IEEE 1588 master; 5=IEEE 1588 slave; 6=IEEE 1588 further; 7=IRIG-B; 8=DNP 3.0; 9=Modbus; 10=SPA; 11=LON VATS; 12=LON other; 13=PPS; 14=Minute pulse; 15=local GPS; 16=IEC60870-5-101; 17=IEC60870-5-103; 18=IEC60870-5-104; 19=EXT; 20=LHMI; 21=Line differential; 99=Free running, locally generated	Monitoring\IED status\Time synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.TmSrcSt.stVal	ENS	Enum	ST	ED1		StatIed	P,H	MB,DN	Synch source	Current time source	0=Not defined; 1=SNTP primary; 2=SNTP secondary; 3=SNTP tertiary or	Monitoring\IED status\Time synchronization	

															further; 4=IEEE 1588 master; 5=IEEE 1588 slave; 6=IEEE 1588 further; 7=IRIG-B; 8=DNP 3.0; 9=Modbus; 10=SPA; 11=LON VATS; 12=LON other; 13=PPS; 14=Minute pulse; 15=local GPS; 16=IEC60870-5-101; 17=IEC60870-5-103; 18=IEC60870-5-104; 19=EXT; 20=LHMI; 21=Line differential; 99=Free running, locally generated		
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.PTPTmSrc.stVal	ENS	Enum	ST	ED2,B,#					Grandmaster time Src	GrandMaster timeSource enum according to PTPv2	1=Atomic clock; 2=GPS; 3=Terrestial radio; 4=PTP; 5=NTP; 6=Hand set; 7=Other; 8=Internal oscil.	Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.PTPTmSrc.stVal	ENS	Enum	ST	ED1					Grandmaster time Src	GrandMaster timeSource enum according to PTPv2	1=Atomic clock; 2=GPS; 3=Terrestial radio; 4=PTP; 5=NTP; 6=Hand set; 7=Other; 8=Internal oscil.	Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.PTPClkAcc.stVal	ENS	Enum	ST	ED2,B,#					Grandmaster accuracy	Grandmaster clockAccuracy enum according to PTPv2	1=25 ns; 2=100 ns; 3=250 ns; 4=1 us; 5=2.5 us; 6=10 us; 7=25 us; 8=100 us; 9=250 us; 10=1 ms; 11=2.5 ms; 12=10 ms; 13=25 ms; 14=100 ms; 15=250 ms; 16=1 s; 17=10 s; 18=more than 10 s	Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.PTPClkAcc.stVal	ENS	Enum	ST	ED1					Grandmaster accuracy	Grandmaster clockAccuracy enum according to PTPv2	1=25 ns; 2=100 ns; 3=250 ns; 4=1 us; 5=2.5 us; 6=10 us; 7=25 us; 8=100 us; 9=250 us; 10=1 ms; 11=2.5 ms; 12=10 ms; 13=25 ms; 14=100 ms; 15=250 ms; 16=1 s; 17=10 s; 18=more than 10 s	Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.LocClkAcc.stVal	INS	INT32	ST	ED2,B,#					Local synch accuracy	Local clock accuracy (master + IED synch accuracy)[us]	0...1000000000 us	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.LocClkAcc.stVal	INS	INT32	ST	ED1					Local synch accuracy	Local clock accuracy (master + IED synch accuracy)[us]	0...1000000000 us	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.MaxDevAcc.stVal	INS	INT32	ST	ED2,B,#					Max Dev synch Acc	Maximum deviation of the Local synch accuracy [us]	0...1000000000 us	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMM1.MaxDevAcc.stVal	INS	INT32	ST	ED1					Max Dev synch Acc	Maximum deviation of the Local synch accuracy [us]	0...1000000000 us	Monitoring\IED status\SMV accuracy	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.MstrId.setVal	VSG	VisString255 (20)	SP	ED2,B,#	----------				Grandmaster identity	Grandmaster Identity octet string according to PTPv2		Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	MON	LD0.GNRLLTMS1.NamPlt.mstrId	LPL	VisString255 (20)	EX	ED1	----------				Grandmaster identity	Grandmaster Identity octet string according to PTPv2		Monitoring\IED status\Time synchronization\IEEE 1588	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.TmSrcSel1.setVal	ENG	Enum	SP	ED2,B,I	1				Synch source	Time synchronization source	0=None; 1=SNTP; 2=Modbus; 3=IEEE 1588; 5=IRIG-B; 8=Line differential; 9=DNP; 16=IEC60870-5-101; 17=IEC60870-5-103; 18=IEC60870-5-104	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMM1.TmSrcSel1.setVal	ENG	Enum	SP	ED1	1				Synch source	Time synchronization source	0=None; 1=SNTP; 2=Modbus; 3=IEEE 1588; 5=IRIG-B; 8=Line differential;	Configuration\Time\Synchronization	

															9=DNP; 16=IEC60870-5-101; 17=IEC60870-5-103; 18=IEC60870-5-104		
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.DomId.setVal	ING	INT32	SP	ED2,B,#	0				PTP domain ID	The domain is identified by an integer, the domainNumber, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMM1.DomId.setVal	ING	INT32	SP	ED1	0				PTP domain ID	The domain is identified by an integer, the domainNumber, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.PTPPrio1.setVal	ING	INT32	SP	ED2,B,#	128				PTP priority 1	PTP priority 1, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMM1.PTPPrio1.setVal	ING	INT32	SP	ED1	128				PTP priority 1	PTP priority 1, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.PTPPrio2.setVal	ING	INT32	SP	ED2,B,#	128				PTP priority 2	PTP priority 2, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMM1.PTPPrio2.setVal	ING	INT32	SP	ED1	128				PTP priority 2	PTP priority 2, in the range of 0 to 255.	0...255	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.IPAddrSNTP1.setVal	VSG	VisString255 (20)	SP	ED2,B,C	10.58.125.165				IP SNTP primary	IP address for SNTP primary server		Configuration\Time\SNTP	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.NamPlt.eIpSNTPpri	LPL	VisString255 (20)	EX	ED1,C	10.58.125.165				IP SNTP primary	IP address for SNTP primary server		Configuration\Time\SNTP	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.IPAddrSNTP2.setVal	VSG	VisString255 (20)	SP	ED2,B,C	192.168.2.165				IP SNTP secondary	IP address for SNTP secondary server		Configuration\Time\SNTP	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.NamPlt.eIpSNTPsec	LPL	VisString255 (20)	EX	ED1,C	192.168.2.165				IP SNTP secondary	IP address for SNTP secondary server		Configuration\Time\SNTP	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMS1.PTPAnncMod.setVal	ENG	Enum	SP	ED2,B,#	1				PTP announce mode	PTP announce frame mode	1=Basic IEEE1588; 2=Power Profile	Configuration\Time\Synchronization	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	CFG	LD0.GNRLLTMM1.PTPAnncMod.setVal	ENG	Enum	SP	ED1	1				PTP announce mode	PTP announce frame mode	1=Basic IEEE1588; 2=Power Profile	Configuration\Time\Synchronization	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmOfsTmm.setVal	ING	INT32	SP	B	0				Local time offset	Local time offset in minutes	-840...840 min	Configuration\Time\System time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmUseDT.setVal	SPG	BOOLEAN	SP	B	1				DST in use	DST in use setting		Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgDT.setCal.weekDay	TSG	Enum	SP	ED2,B	0				DST on day (weekday)	Daylight saving time on, day of week	0=reserved; 1=Monday; 2=Tuesday; 3=Wednesday; 4=Thursday; 5=Friday; 6=Saturday; 7=Sunday	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.weekDayDT	LPL	Enum	EX	ED1	0				DST on day (weekday)	Daylight saving time on, day of week	0=reserved; 1=Monday; 2=Tuesday; 3=Wednesday; 4=Thursday; 5=Friday; 6=Saturday; 7=Sunday	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgDT.setCal.month	TSG	Enum	SP	ED2,B	5				DST on date (month)	Daylight saving time on, date (dd:mm)	1=January; 2=February; 3=March; 4=April; 5=May; 6=June; 7=July; 8=August; 9=September; 10=October; 11=November; 12=December	Configuration\Time\Daylight saving time	

GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.monthDT	LPL	Enum	EX	ED1	5				DST on date (month)	Daylight saving time on, date (dd:mm)	1=January; 2=February; 3=March; 4=April; 5=May; 6=June; 7=July; 8=August; 9=September; 10=October; 11=November; 12=December	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgDT.setCal.day	TSG	INT8U	SP	ED2,B	1				DST on date (day)	Daylight saving time on, date (dd:mm)	1...31	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.dayDT	LPL	INT8U	EX	ED1	1				DST on date (day)	Daylight saving time on, date (dd:mm)	1...31	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgDT.setCal.hr	TSG	INT8U	SP	ED2,B	2				DST on time (hours)	Daylight saving time on, time (hh)	0...23 h	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.hrDT	LPL	INT8U	EX	ED1	2				DST on time (hours)	Daylight saving time on, time (hh)	0...23 h	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgDT.setCal.mn	TSG	INT8U	SP	ED2,B	0				DST on time (minutes)	Daylight saving time on, time (mm)	0...59 min	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.mnDT	LPL	INT8U	EX	ED1	0				DST on time (minutes)	Daylight saving time on, time (mm)	0...59 min	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgST.setCal.weekDay	TSG	Enum	SP	ED2,B	0				DST off day (weekday)	Daylight saving time off, day of week	0=reserved; 1=Monday; 2=Tuesday; 3=Wednesday; 4=Thursday; 5=Friday; 6=Saturday; 7=Sunday	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.weekDayST	LPL	Enum	EX	ED1	0				DST off day (weekday)	Daylight saving time off, day of week	0=reserved; 1=Monday; 2=Tuesday; 3=Wednesday; 4=Thursday; 5=Friday; 6=Saturday; 7=Sunday	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgST.setCal.month	TSG	Enum	SP	ED2,B	9				DST off date (month)	Daylight saving time off, date (dd:mm)	1=January; 2=February; 3=March; 4=April; 5=May; 6=June; 7=July; 8=August; 9=September; 10=October; 11=November; 12=December	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.monthST	LPL	Enum	EX	ED1	9				DST off date (month)	Daylight saving time off, date (dd:mm)	1=January; 2=February; 3=March; 4=April; 5=May; 6=June; 7=July; 8=August; 9=September; 10=October; 11=November; 12=December	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgST.setCal.day	TSG	INT8U	SP	ED2,B	25				DST off date (day)	Daylight saving time off, date (dd:mm)	1...31	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.dayST	LPL	INT8U	EX	ED1	25				DST off date (day)	Daylight saving time off, date (dd:mm)	1...31	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgST.setCal.hr	TSG	INT8U	SP	ED2,B	2				DST off time (hours)	Daylight saving time off, time (hh)	0...23 h	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.hrST	LPL	INT8U	EX	ED1	2				DST off time (hours)	Daylight saving time off, time (hh)	0...23 h	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmChgST.setCal.mn	TSG	INT8U	SP	ED2,B	0				DST off time (minutes)	Daylight saving time off, time (mm)	0...59 min	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.mnST	LPL	INT8U	EX	ED1	0				DST off time (minutes)	Daylight saving time off, time (mm)	0...59 min	Configuration\Time\Daylight saving time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmSys.setVal	VSG	VisString255 (20)	SP	ED2,B	0				Time	Time		Configuration\Time\System time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.tmSys	LPL	VisString255 (20)	EX	ED1	0				Time	Time		Configuration\Time\System time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.DateSys.setVal	VSG	VisString255 (20)	SP	ED2,B	0				Date	Date		Configuration\Time\System time	

GNRLLTIM1			CFG	LD0.GNRLLTIM1.NamPlt.dateSys	LPL	VisString255 (20)	EX	ED1	0				Date	Date		Configuration\Time\System time	
GNRLLTIM1			CFG	LD0.GNRLLTIM1.TmOfsDT.setVal	ING	INT32	SP	B	60				DST offset	Daylight saving time offset	-720...720 min	Configuration\Time\Daylight saving time	
GNRLLTMS1	TSYNC(1)	TSYNC(1)	VER	LD0.GNRLLTMS1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED2,ED1	C					(Name plate)			
GNRLLTMS1	TSYNC(1)	TSYNC(1)	VER	LD0.GNRLLTMM1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

CMMXU1: Three-phase current measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CMMXU1	3I(1)	3I(1)	INP	LD0.CMMXU1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\CMMXU1\Inputs	
CMMXU1	3I(1)	3I(1)	OUT	LD0.CMMXU1.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3,I1	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\CMMXU1\Outputs	
CMMXU1	3I(1)	3I(1)	OUT	LD0.CMMXU1.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3,I1	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\CMMXU1\Outputs	
CMMXU1	3I(1)	3I(1)	OUT	LD0.CMMXU1.LoWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3,I1	LOW_WARN	Low warning		Monitoring\I/O status\Measurements\CMMXU1\Outputs	
CMMXU1	3I(1)	3I(1)	OUT	LD0.CMMXU1.LoAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3,I1	LOW_ALARM	Low alarm		Monitoring\I/O status\Measurements\CMMXU1\Outputs	
CMMXU1	3I(1)	3I(1)	CTR	LD0.CMMXU1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(CMMXU1 demands)			
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsA.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3,I1	IL1-A	Measured current amplitude phase A	0.00...40.00 xIn	Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsA.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P	I1	I_ANGL_A	IL1 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_A	IL1 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsA.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_A	IL1 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsB.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3,I1	IL2-A	Measured current amplitude phase B	0.00...40.00 xIn	Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsB.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P	I1	I_ANGL_B	IL2 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_B	IL2 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsB.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_B	IL2 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsC.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3,I1	IL3-A	Measured current amplitude phase C	0.00...40.00 xIn	Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsC.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P	I1	I_ANGL_C	IL3 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_C	IL3 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1

CMMXU1	3I(1)	3I(1)	MON	LD0.CMMXU1.A.phsC.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_C	IL3 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CAVMMXU1.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_A	Demand value of IL1 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CAVMMXU1.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_B	Demand value of IL2 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CAVMMXU1.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_C	Demand value of IL3 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU1\Monitored data	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL1	Maximum demand for Phase A	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsA.t	WYE	Timestamp	MX	B					Time max demand IL1	Time of maximum demand phase A		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL2	Maximum demand for Phase B	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsB.t	WYE	Timestamp	MX	B					Time max demand IL2	Time of maximum demand phase B		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL3	Maximum demand for Phase C	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMAMMXU1.A.phsC.t	WYE	Timestamp	MX	B					Time max demand IL3	Time of maximum demand phase C		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL1	Minimum demand for Phase A	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsA.t	WYE	Timestamp	MX	B					Time min demand IL1	Time of minimum demand phase A		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL2	Minimum demand for Phase B	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsB.t	WYE	Timestamp	MX	B					Time min demand IL2	Time of minimum demand phase B		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL3	Minimum demand for Phase C	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	MON	LD0.CMIMMXU1.A.phsC.t	WYE	Timestamp	MX	B					Time min demand IL3	Time of minimum demand phase C		Monitoring\Recorded data\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\CMMXU1	
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.A.phsA.db	WYE	INT32U	CF	B,I	2500				A deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.A.phsA.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	1.40				A high high limit	High alarm current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.A.phsA.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	1.20				A high limit	High warning current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.A.phsA.rangeC.lLim.f	WYE	FLOAT32	CF	B,I	0.00				A low limit	Low warning current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.A.phsA.rangeC.llLim.f	WYE	FLOAT32	CF	B,I	0.00				A low low limit	Low alarm current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU1	IL1TCTR1
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\CMMXU1	
CMMXU1	3I(1)	3I(1)	CFG	LD0.CMMXU1.NumPh.setVal	ENG	Enum	SP	B	1				Num of phases	Number of phases required by limit supervision	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Configuration\Measurements\CMMXU1	
CMMXU1	3I(1)	3I(1)	VER	LD0.CMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

RESCMMXU1: Residual current measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
RESCMMXU1	Io(1)	In(1)	INP	LD0.RESCMMXU1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\RESCMMXU1\Inputs	
RESCMMXU1	Io(1)	In(1)	OUT	LD0.RESCMMXU1.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\RESCMMXU1\Outputs	
RESCMMXU1	Io(1)	In(1)	OUT	LD0.RESCMMXU1.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\RESCMMXU1\Outputs	
RESCMMXU1	Io(1)	In(1)	CTR	LD0.RESCMMXU1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(RESCMMXU1 demands)			
RESCMMXU1	Io(1)	In(1)	MON	LD0.RESCMMXU1.A.res.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	Io-A	Measured residual current	0.00...40.00 xIn	Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RESCMMXU1.A.res.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_ANGL_RES	Residual current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\RESCMMXU1\Monitored data	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RESCMMXU1.A.res.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_RES	Residual current Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\RESCMMXU1\Monitored data	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RESCMMXU1.A.res.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_RES	Residual current Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\RESCMMXU1\Monitored data	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RCAVMMXU1.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_RES	Demand value of residual current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\RESCMMXU1\Monitored data	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RCMAMMXU1.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand Io	Maximum demand for residual current	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RCMAMMXU1.A.res.t	WYE	Timestamp	MX	B					Time max demand Io	Time of maximum demand residual current		Monitoring\Recorded data\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RCMIMMXU1.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand Io	Minimum demand for residual current	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	MON	LD0.RCMIMMXU1.A.res.t	WYE	Timestamp	MX	B					Time min demand Io	Time of minimum demand residual current		Monitoring\Recorded data\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	CFG	LD0.RESCMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\RESCMMXU1	
RESCMMXU1	Io(1)	In(1)	CFG	LD0.RESCMMXU1.A.res.db	WYE	INT32U	CF	B,I	2500				A deadband res	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	CFG	LD0.RESCMMXU1.A.res.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	0.20				A Hi high limit res	High alarm current limit	0.00...40.00 xIn	Configuration\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	CFG	LD0.RESCMMXU1.A.res.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	0.05				A high limit res	High warning current limit	0.00...40.00 xIn	Configuration\Measurements\RESCMMXU1	RESTCTR1
RESCMMXU1	Io(1)	In(1)	CFG	LD0.RESCMMXU1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\RESCMMXU1	
RESCMMXU1	Io(1)	In(1)	VER	LD0.RESCMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

CSMSQI1: Sequence current measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c1.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	PsSeq-A	Measured positive sequence current	0.00...40.00 xIn	Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c1.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I1_ANGL	Positive sequence current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c1.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I1_DB	Positive sequence current amplitude, reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c1.range	SEQ	Enum	MX	B		MeasFlt	P		I1_RANGE	Positive sequence current amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c2.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	NgSeq-A	Measured negative sequence current	0.00...40.00 xIn	Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c2.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I2_ANGL	Negative sequence current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c2.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I2_DB	Negative sequence current amplitude, reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c2.range	SEQ	Enum	MX	B		MeasFlt	P		I2_RANGE	Negative sequence current amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c3.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	ZroSeq-A	Measured zero sequence current	0.00...40.00 xIn	Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c3.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I0_ANGL	Zero sequence current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c3.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		I0_DB	Zero sequence current amplitude, reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	MON	LD0.CSMSQI1.SeqA.c3.range	SEQ	Enum	MX	B		MeasFlt	P		I0_RANGE	Zero sequence current amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CSMSQI1\Monitored data	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\CSMSQI1	
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c1.db	SEQ	INT32U	CF	B,I	2500				Ps Seq A deadband	Deadband configuration value for positive sequence current for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c1.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	1.40				Ps Seq A Hi high Lim	High alarm current limit for positive sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c1.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	1.20				Ps Seq A high limit	High warning current limit for positive sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c1.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ps Seq A low limit	Low warning current limit for positive sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c1.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ps Seq A low low Lim	Low alarm current limit for positive sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c2.db	SEQ	INT32U	CF	B,I	2500				Ng Seq A deadband	Deadband configuration value for negative sequence current for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c2.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	0.20				Ng Seq A Hi high Lim	High alarm current limit for negative sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c2.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	0.05				Ng Seq A High limit	High warning current limit for negative sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c2.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ng Seq A low limit	Low warning current limit for negative sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1

CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c2.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ng Seq A low low Lim	Low alarm current limit for negative sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c3.db	SEQ	INT32U	CF	B,I	2500				Zro A deadband	Deadband configuration value for zero sequence current for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c3.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	0.20				Zro A Hi high Lim	High alarm current limit for zero sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c3.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	0.05				Zro A High limit	High warning current limit for zero sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c3.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Zro A low limit	Low warning current limit for zero sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	CFG	LD0.CSMSQI1.SeqA.c3.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Zro A low low Lim	Low alarm current limit for zero sequence current	0.00...40.00 xIn	Configuration\Measurements\CSMSQI1	IL1TCTR1
CSMSQI1	I1,I2,I0(1)	I1,I2,I0(1)	VER	LD0.CSMSQI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

PHIPTOC1: Three phase non-directional OC, inst. stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHIPTOC1	3I>>>(1)	50P/51P(1)	INP	LD0.PHIPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHIPTOC1\Inputs	
PHIPTOC1	3I>>>(1)	50P/51P(1)	INP	LD0.PHIPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHIPTOC1\Inputs	
PHIPTOC1	3I>>>(1)	50P/51P(1)	OUT	LD0.PHIPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHIPTOC1\Outputs	
PHIPTOC1	3I>>>(1)	50P/51P(1)	OUT	LD0.PHIPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHIPTOC1\Outputs	
PHIPTOC1	3I>>>(1)	50P/51P(1)	MON	LD0.PHIPTOC1.Beh.stVal	ENS	Enum	ST	B					PHIPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHIPTOC1	3I>>>(1)	50P/51P(1)	MON	LD0.PHIPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHIPTOC1\Monitored data	
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHIPTOC1	
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.00				Start value	Start value	1.00...40.00 xIn	Settings\Settings\Current protection\PHIPTOC1	IL1TCTR1
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	20				Operate delay time	Operate delay time	20...200000 ms	Settings\Settings\Current protection\PHIPTOC1	
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHIPTOC1	
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHIPTOC1	
PHIPTOC1	3I>>>(1)	50P/51P(1)	SET	LD0.PHIPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHIPTOC1	

PHIPTOC1	3I>>>(1)	50P/51P(1)	TES	LD0.PHIPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHIPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHIPTOC1	3I>>>(1)	50P/51P(1)	VER	LD0.PHIPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

CCBRBRF1: Circuit breaker failure protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	INP	LD0.CCBRBRF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block CBFP operation		Monitoring\I/O status\Other protection\CCBRBRF1\Inputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	INP	LD0.CCBRBRF1.InStr.stVal	SPS	BOOLEAN	ST	B	0				START	CBFP start command		Monitoring\I/O status\Other protection\CCBRBRF1\Inputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	INP	LD0.CCBRBRF1.InPosCls.stVal	SPS	BOOLEAN	ST	B	0				POSCLOSE	CB in closed position		Monitoring\I/O status\Other protection\CCBRBRF1\Inputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	INP	LD0.CCBRBRF1.InCBFlt.stVal	SPS	BOOLEAN	ST	B	0				CB_FAULT	CB faulty and unable to trip		Monitoring\I/O status\Other protection\CCBRBRF1\Inputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	OUT	LD0.CCBRBRF1.Str.general	ACD	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	CB_FAULT_AL	Delayed CB failure alarm		Monitoring\I/O status\Other protection\CCBRBRF1\Outputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	OUT	LD0.CCBRBRF1.OpEx.general	ACT	BOOLEAN	ST	B		StatIed	P,H,T	MB,DN,I3	TRBU	Backup trip		Monitoring\I/O status\Other protection\CCBRBRF1\Outputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	OUT	LD0.CCBRBRF1.OpIn.general	ACT	BOOLEAN	ST	B		StatIed	P,H,T	MB,DN,I3	TRRET	Retrip		Monitoring\I/O status\Other protection\CCBRBRF1\Outputs	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	MON	LD0.CCBRBRF1.Beh.stVal	ENS	Enum	ST	B					CCBRBRF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.FailMod.setVal	ENG	Enum	SP	B	1				CB failure mode	Operating mode of function	1=Current; 2=Breaker status; 3=Both	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.FailTmms.setVal	ING	INT32	SP	B	240				CB failure delay	Delay timer for backup trip	0...60000 ms	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.TPTrTmms.setVal	ING	INT32	SP	B	120				Retrip time	Delay timer for retrip	0...60000 ms	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.DetValA.setMag.f	ASG	FLOAT32	SP	B	0.30				Current value	Operating phase current	0.05...2.00 xIn	Settings\Settings\Other protection\CCBRBRF1	IL1TCTR1
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.ReTrMod.setVal	ENG	Enum	SP	B	1				CB fail retrip mode	Operating mode of retrip logic	1=Off; 2=Without Check; 3=Current check	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.TrPlsTmms.setVal	ING	INT32	SP	A	200				Trip pulse time	Pulse length of retrip and backup trip outputs	0...60000 ms	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.DetValARes.setMag.f	ASG	FLOAT32	SP	B	0.30				Current value Res	Operating residual current	0.05...2.00 xIn	Settings\Settings\Other protection\CCBRBRF1	RESTCTR1
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.AMeasMod.setVal	ENG	Enum	SP	A	3				Measurement mode	Phase current measurement mode of function	2=DFT; 3=Peak-to-Peak	Settings\Settings\Other protection\CCBRBRF1	

CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.CBAlmTmms.setVal	ING	INT32	SP	A	5000				CB fault delay	Circuit breaker faulty delay	0...60000 ms	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.OpExMod.setVal	ENG	Enum	SP	B	2				CB failure trip mode	Backup trip current check mode	1=2 out of 4; 2=1 out of 3; 3=1 out of 4	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	SET	LD0.CCBRBRF1.StrLtcMod.setVal	ENG	Enum	SP	A	1				Start latching mode	Start reset delayed or immediately	1=Rising edge; 2=Level sensitive	Settings\Settings\Other protection\CCBRBRF1	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	TES	LD0.CCBRBRF1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				CCBRBRF1	Test control for outputs	0=Reset; 25=Activate CB_FAULT_AL; 26=Deactive CB_FAULT_AL; 27=Activate TRBU; 28=Deactive TRBU; 29=Activate TRRET; 30=Deactive TRRET	Tests\Function tests\Other protection	
CCBRBRF1	3I>/Io>BF(1)	51BF/51NBF(1)	VER	LD0.CCBRBRF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

MDSOPT1: Generic operation time supervision for machines and devices

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MDSOPT1	OPTS(1)	OPTM(1)	INP	LD0.MDSOPT1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block input status		Monitoring\I/O status\Condition monitoring\MDSOPT1\Inputs	
MDSOPT1	OPTS(1)	OPTM(1)	INP	LD0.MDSOPT1.OpTmRs.stVal	SPC	BOOLEAN	ST	B	0				RESET	Resets the accumulated operation time to initial value		Monitoring\I/O status\Condition monitoring\MDSOPT1\Inputs	
MDSOPT1	OPTS(1)	OPTM(1)	INP	LD0.MDSOPT1.TmOp.stVal	SPS	BOOLEAN	ST	B	0				POS_ACTIVE	When active indicates the equipment is running		Monitoring\I/O status\Condition monitoring\MDSOPT1\Inputs	
MDSOPT1	OPTS(1)	OPTM(1)	OUT	LD0.MDSOPT1.OpTmWrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning accumulated operation time exceeds Warning value		Monitoring\I/O status\Condition monitoring\MDSOPT1\Outputs	
MDSOPT1	OPTS(1)	OPTM(1)	OUT	LD0.MDSOPT1.OpTmAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm accumulated operation time exceeds Alarm value		Monitoring\I/O status\Condition monitoring\MDSOPT1\Outputs	
MDSOPT1	OPTS(1)	OPTM(1)	CTR	LD0.MDSOPT1.OpTmRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				MDSOPT1 operation t	Resets the accumulated operation time to initial value	0=Cancel; 1=Clear	Clear\Clear	
MDSOPT1	OPTS(1)	OPTM(1)	MON	LD0.MDSOPT1.Beh.stVal	ENS	Enum	ST	B					MDSOPT1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MDSOPT1	OPTS(1)	OPTM(1)	MON	LD0.MDSOPT1.OpTmh.stVal	INS	INT32	ST	B				MB,DN	OPR_TIME	Total operation time in hours	0...299999 h	Monitoring\I/O status\Condition monitoring\MDSOPT1\Monitored data	
MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\MDSOPT1	
MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.OpWrnTmh.setVal	ING	INT32	SP	B	8000				Warning value	Warning value for operation time supervision	0...299999 h	Configuration\Condition monitoring\MDSOPT1	
MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.OpAlmTmh.setVal	ING	INT32	SP	B	10000				Alarm value	Alarm value for operation time supervision	0...299999 h	Configuration\Condition monitoring\MDSOPT1	
MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.IniOpTmh.setVal	ING	INT32	SP	A	0				Initial value	Initial value for operation time supervision	0...299999 h	Configuration\Condition monitoring\MDSOPT1	
MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.OpActTmh.setVal	ING	INT32	SP	A	0				Operating time hour	Time of day when alarm and warning will occur	0...23 h	Configuration\Condition monitoring\MDSOPT1	

MDSOPT1	OPTS(1)	OPTM(1)	CFG	LD0.MDSOPT1.OpActMod.setVal	ENG	Enum	SP	A	1				Operating time mode	Operating time mode for warning and alarm	1=Immediate; 2=Timed Warn; 3=Timed Warn Alm	Configuration\Condition monitoring\MDSOPT1	
MDSOPT1	OPTS(1)	OPTM(1)	TES	LD0.MDSOPT1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	1				MDSOPT1	Operation Off / On	0=Reset; 17=Activate ALARM; 18=Deactive ALARM; 19=Activate WARNING; 20=Deactive WARNING	Tests\Function tests\Condition monitoring	
MDSOPT1	OPTS(1)	OPTM(1)	VER	LD0.MDSOPT1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

NSPTOC1: Negative Phase sequence current protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
NSPTOC1	I2>(1)	46(1)	INP	LD0.NSPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\NSPTOC1\Inputs	
NSPTOC1	I2>(1)	46(1)	INP	LD0.NSPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\NSPTOC1\Inputs	
NSPTOC1	I2>(1)	46(1)	OUT	LD0.NSPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\NSPTOC1\Outputs	
NSPTOC1	I2>(1)	46(1)	OUT	LD0.NSPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\NSPTOC1\Outputs	
NSPTOC1	I2>(1)	46(1)	MON	LD0.NSPTOC1.Beh.stVal	ENS	Enum	ST	B					NSPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
NSPTOC1	I2>(1)	46(1)	MON	LD0.NSPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\NSPTOC1\Monitored data	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\NSPTOC1	

NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.30				Start value	Start value	0.01...5.00 xIn	Settings\Settings\Current protection\NSPTOC1	IL1TCTR1
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	SET	LD0.NSPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\NSPTOC1	
NSPTOC1	I2>(1)	46(1)	TES	LD0.NSPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				NSPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
NSPTOC1	I2>(1)	46(1)	VER	LD0.NSPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

NSPTOC2: Negative Phase sequence current protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
NSPTOC2	I2>(2)	46(2)	INP	LD0.NSPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\NSPTOC2\Inputs	
NSPTOC2	I2>(2)	46(2)	INP	LD0.NSPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\NSPTOC2\Inputs	
NSPTOC2	I2>(2)	46(2)	OUT	LD0.NSPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\NSPTOC2\Outputs	
NSPTOC2	I2>(2)	46(2)	OUT	LD0.NSPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\NSPTOC2\Outputs	
NSPTOC2	I2>(2)	46(2)	MON	LD0.NSPTOC2.Beh.stVal	ENS	Enum	ST	B					NSPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
NSPTOC2	I2>(2)	46(2)	MON	LD0.NSPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\NSPTOC2\Monitored data	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC	Settings\Settings\Current protection\NSPTOC2	

															L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type			
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.30				Start value	Start value	0.01...5.00 xIn	Settings\Settings\Current protection\NSPTOC2	IL1TCTR1
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	SET	LD0.NSPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\NSPTOC2	
NSPTOC2	I2>(2)	46(2)	TES	LD0.NSPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				NSPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
NSPTOC2	I2>(2)	46(2)	VER	LD0.NSPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

MVGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN1	IN1 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	

MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN2	IN2 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN3	IN3 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN4	IN4 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN5	IN5 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN6	IN6 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN7	IN7 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	INP	LD0.MVGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0			MB,I1	IN8	IN8 status		Monitoring\I/O status\Generic logic\MVGAPC1\Inputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q1	Q1 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q2	Q2 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q3	Q3 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q4	Q4 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q5	Q5 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q6	Q6 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q7	Q7 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	OUT	LD0.MVGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q8	Q8 status		Monitoring\I/O status\Generic logic\MVGAPC1\Outputs	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO1.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q1				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 1	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO2.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q2				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 2	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO3.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q3				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 3	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO4.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q4				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 4	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO5.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q5				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 5	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO6.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q6				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 6	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO7.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q7				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 7	
MVGAPC1	MV(1)	MV(1)	CFG	LD0.MVGAPC1.SPCSO8.d	SPC	VisString255 (64)	DC	B	MVGAPC1 Q8				Description	Output description		Configuration\Generic logic\MVGAPC1\Output 8	
MVGAPC1	MV(1)	MV(1)	VER	LD0.MVGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MVGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	IN1 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	IN2 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	IN3 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	IN4 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	IN5 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	IN6 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	IN7 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	INP	LD0.MVGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	IN8 status		Monitoring\I/O status\Generic logic\MVGAPC2\Inputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q1	Q1 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q2	Q2 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q3	Q3 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q4	Q4 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q5	Q5 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	

MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q6	Q6 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q7	Q7 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	OUT	LD0.MVGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	Q8	Q8 status		Monitoring\I/O status\Generic logic\MVGAPC2\Outputs	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO1.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q1				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 1	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO2.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q2				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 2	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO3.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q3				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 3	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO4.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q4				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 4	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO5.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q5				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 5	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO6.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q6				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 6	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO7.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q7				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 7	
MVGAPC2	MV(2)	MV(2)	CFG	LD0.MVGAPC2.SPCSO8.d	SPC	VisString255 (64)	DC	B	MVGAPC2 Q8				Description	Output description		Configuration\Generic logic\MVGAPC2\Output 8	
MVGAPC2	MV(2)	MV(2)	VER	LD0.MVGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

SRGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				S1	Set Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				S2	Set Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				S3	Set Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				S4	Set Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				S5	Set Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				S6	Set Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				S7	Set Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				S8	Set Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs1.stVal	SPC	BOOLEAN	ST	B	0				R1	Resets Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs2.stVal	SPC	BOOLEAN	ST	B	0				R2	Resets Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs3.stVal	SPC	BOOLEAN	ST	B	0				R3	Resets Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs4.stVal	SPC	BOOLEAN	ST	B	0				R4	Resets Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs5.stVal	SPC	BOOLEAN	ST	B	0				R5	Resets Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs6.stVal	SPC	BOOLEAN	ST	B	0				R6	Resets Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs7.stVal	SPC	BOOLEAN	ST	B	0				R7	Resets Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	INP	LD0.SRGAPC1.Rs8.stVal	SPC	BOOLEAN	ST	B	0				R8	Resets Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC1\Inputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Q1 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Q2 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Q3 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Q4 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Q5 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Q6 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Q7 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	OUT	LD0.SRGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Q8 status		Monitoring\I/O status\Generic logic\SRGAPC1\Outputs	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	

SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CTR	LD0.SRGAPC1.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	CFG	LD0.SRGAPC1.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC1	
SRGAPC1	SR(1)	SR(1)	VER	LD0.SRGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SRGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				S1	Set Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				S2	Set Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				S3	Set Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				S4	Set Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				S5	Set Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				S6	Set Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				S7	Set Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				S8	Set Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs1.stVal	SPC	BOOLEAN	ST	B	0				R1	Resets Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs2.stVal	SPC	BOOLEAN	ST	B	0				R2	Resets Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs3.stVal	SPC	BOOLEAN	ST	B	0				R3	Resets Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs4.stVal	SPC	BOOLEAN	ST	B	0				R4	Resets Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs5.stVal	SPC	BOOLEAN	ST	B	0				R5	Resets Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs6.stVal	SPC	BOOLEAN	ST	B	0				R6	Resets Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs7.stVal	SPC	BOOLEAN	ST	B	0				R7	Resets Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	INP	LD0.SRGAPC2.Rs8.stVal	SPC	BOOLEAN	ST	B	0				R8	Resets Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC2\Inputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Q1 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Q2 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Q3 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Q4 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Q5 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	

SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Q6 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Q7 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	OUT	LD0.SRGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Q8 status		Monitoring\I/O status\Generic logic\SRGAPC2\Outputs	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CTR	LD0.SRGAPC2.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	CFG	LD0.SRGAPC2.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC2	
SRGAPC2	SR(2)	SR(2)	VER	LD0.SRGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SRGAPC3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind1.stVal	SPS	BOOLEAN	ST	B	0				S1	Set Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind2.stVal	SPS	BOOLEAN	ST	B	0				S2	Set Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind3.stVal	SPS	BOOLEAN	ST	B	0				S3	Set Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind4.stVal	SPS	BOOLEAN	ST	B	0				S4	Set Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind5.stVal	SPS	BOOLEAN	ST	B	0				S5	Set Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind6.stVal	SPS	BOOLEAN	ST	B	0				S6	Set Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind7.stVal	SPS	BOOLEAN	ST	B	0				S7	Set Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Ind8.stVal	SPS	BOOLEAN	ST	B	0				S8	Set Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs1.stVal	SPC	BOOLEAN	ST	B	0				R1	Resets Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs2.stVal	SPC	BOOLEAN	ST	B	0				R2	Resets Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs3.stVal	SPC	BOOLEAN	ST	B	0				R3	Resets Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs4.stVal	SPC	BOOLEAN	ST	B	0				R4	Resets Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs5.stVal	SPC	BOOLEAN	ST	B	0				R5	Resets Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs6.stVal	SPC	BOOLEAN	ST	B	0				R6	Resets Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs7.stVal	SPC	BOOLEAN	ST	B	0				R7	Resets Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	INP	LD0.SRGAPC3.Rs8.stVal	SPC	BOOLEAN	ST	B	0				R8	Resets Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC3\Inputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Q1 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	

SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Q2 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Q3 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Q4 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Q5 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Q6 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Q7 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	OUT	LD0.SRGAPC3.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Q8 status		Monitoring\I/O status\Generic logic\SRGAPC3\Outputs	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CTR	LD0.SRGAPC3.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	CFG	LD0.SRGAPC3.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC3	
SRGAPC3	SR(3)	SR(3)	VER	LD0.SRGAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SRGAPC4

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind1.stVal	SPS	BOOLEAN	ST	B	0				S1	Set Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind2.stVal	SPS	BOOLEAN	ST	B	0				S2	Set Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind3.stVal	SPS	BOOLEAN	ST	B	0				S3	Set Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind4.stVal	SPS	BOOLEAN	ST	B	0				S4	Set Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind5.stVal	SPS	BOOLEAN	ST	B	0				S5	Set Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind6.stVal	SPS	BOOLEAN	ST	B	0				S6	Set Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind7.stVal	SPS	BOOLEAN	ST	B	0				S7	Set Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Ind8.stVal	SPS	BOOLEAN	ST	B	0				S8	Set Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs1.stVal	SPC	BOOLEAN	ST	B	0				R1	Resets Q1 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs2.stVal	SPC	BOOLEAN	ST	B	0				R2	Resets Q2 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs3.stVal	SPC	BOOLEAN	ST	B	0				R3	Resets Q3 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs4.stVal	SPC	BOOLEAN	ST	B	0				R4	Resets Q4 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs5.stVal	SPC	BOOLEAN	ST	B	0				R5	Resets Q5 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	

SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs6.stVal	SPC	BOOLEAN	ST	B	0				R6	Resets Q6 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs7.stVal	SPC	BOOLEAN	ST	B	0				R7	Resets Q7 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	INP	LD0.SRGAPC4.Rs8.stVal	SPC	BOOLEAN	ST	B	0				R8	Resets Q8 output when set		Monitoring\I/O status\Generic logic\SRGAPC4\Inputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Q1 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Q2 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Q3 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Q4 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Q5 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Q6 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Q7 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	OUT	LD0.SRGAPC4.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Q8 status		Monitoring\I/O status\Generic logic\SRGAPC4\Outputs	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CTR	LD0.SRGAPC4.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q1	Resets Q1 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q2	Resets Q2 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q3	Resets Q3 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q4	Resets Q4 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q5	Resets Q5 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q6	Resets Q6 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q7	Resets Q7 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	CFG	LD0.SRGAPC4.Rs8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Reset Q8	Resets Q8 output when set	0=Cancel; 1=Reset	Configuration\Generic logic\SRGAPC4	
SRGAPC4	SR(4)	SR(4)	VER	LD0.SRGAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TONGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	INP	LD0.TONGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8		Monitoring\I/O status\Generic timers\TONGAPC1\Inputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	

TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	OUT	LD0.TONGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8		Monitoring\I/O status\Generic timers\TONGAPC1\Outputs	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms1.setVal	ING	INT32	SP	B	0				On delay time 1	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms2.setVal	ING	INT32	SP	B	0				On delay time 2	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms3.setVal	ING	INT32	SP	B	0				On delay time 3	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms4.setVal	ING	INT32	SP	B	0				On delay time 4	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms5.setVal	ING	INT32	SP	B	0				On delay time 5	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms6.setVal	ING	INT32	SP	B	0				On delay time 6	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms7.setVal	ING	INT32	SP	B	0				On delay time 7	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	CFG	LD0.TONGAPC1.OnDlTmms8.setVal	ING	INT32	SP	B	0				On delay time 8	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC1	
TONGAPC1	TON(1)	TON(1)	VER	LD0.TONGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TONGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	INP	LD0.TONGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8		Monitoring\I/O status\Generic timers\TONGAPC2\Inputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	OUT	LD0.TONGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8		Monitoring\I/O status\Generic timers\TONGAPC2\Outputs	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms1.setVal	ING	INT32	SP	B	0				On delay time 1	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms2.setVal	ING	INT32	SP	B	0				On delay time 2	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms3.setVal	ING	INT32	SP	B	0				On delay time 3	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms4.setVal	ING	INT32	SP	B	0				On delay time 4	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms5.setVal	ING	INT32	SP	B	0				On delay time 5	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	

TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms6.setVal	ING	INT32	SP	B	0				On delay time 6	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms7.setVal	ING	INT32	SP	B	0				On delay time 7	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	CFG	LD0.TONGAPC2.OnDlTmms8.setVal	ING	INT32	SP	B	0				On delay time 8	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC2	
TONGAPC2	TON(2)	TON(2)	VER	LD0.TONGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TONGAPC3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	INP	LD0.TONGAPC3.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8		Monitoring\I/O status\Generic timers\TONGAPC3\Inputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	OUT	LD0.TONGAPC3.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8		Monitoring\I/O status\Generic timers\TONGAPC3\Outputs	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms1.setVal	ING	INT32	SP	B	0				On delay time 1	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms2.setVal	ING	INT32	SP	B	0				On delay time 2	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms3.setVal	ING	INT32	SP	B	0				On delay time 3	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms4.setVal	ING	INT32	SP	B	0				On delay time 4	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms5.setVal	ING	INT32	SP	B	0				On delay time 5	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms6.setVal	ING	INT32	SP	B	0				On delay time 6	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms7.setVal	ING	INT32	SP	B	0				On delay time 7	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	CFG	LD0.TONGAPC3.OnDlTmms8.setVal	ING	INT32	SP	B	0				On delay time 8	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC3	
TONGAPC3	TON(3)	TON(3)	VER	LD0.TONGAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TONGAPC4

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	

TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	INP	LD0.TONGAPC4.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8		Monitoring\I/O status\Generic timers\TONGAPC4\Inputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	OUT	LD0.TONGAPC4.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8		Monitoring\I/O status\Generic timers\TONGAPC4\Outputs	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms1.setVal	ING	INT32	SP	B	0				On delay time 1	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms2.setVal	ING	INT32	SP	B	0				On delay time 2	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms3.setVal	ING	INT32	SP	B	0				On delay time 3	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms4.setVal	ING	INT32	SP	B	0				On delay time 4	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms5.setVal	ING	INT32	SP	B	0				On delay time 5	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms6.setVal	ING	INT32	SP	B	0				On delay time 6	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms7.setVal	ING	INT32	SP	B	0				On delay time 7	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	CFG	LD0.TONGAPC4.OnDlTmms8.setVal	ING	INT32	SP	B	0				On delay time 8	On delay time	0...3600000 ms	Configuration\Generic timers\TONGAPC4	
TONGAPC4	TON(4)	TON(4)	VER	LD0.TONGAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TOFGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	INP	LD0.TOFGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Inputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	
TOFGAPC1	TOF(1)	TOF(1)	OUT	LD0.TOFGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\TOFGAPC1\Outputs	

TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms1.setVal	ING	INT32	SP	B	0				Off delay time 1	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms2.setVal	ING	INT32	SP	B	0				Off delay time 2	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms3.setVal	ING	INT32	SP	B	0				Off delay time 3	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms4.setVal	ING	INT32	SP	B	0				Off delay time 4	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms5.setVal	ING	INT32	SP	B	0				Off delay time 5	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms6.setVal	ING	INT32	SP	B	0				Off delay time 6	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms7.setVal	ING	INT32	SP	B	0				Off delay time 7	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	CFG	LD0.TOFGAPC1.OffDlTmms8.setVal	ING	INT32	SP	B	0				Off delay time 8	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC1	
TOFGAPC1	TOF(1)	TOF(1)	VER	LD0.TOFGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TOFGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	INP	LD0.TOFGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Inputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	OUT	LD0.TOFGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\TOFGAPC2\Outputs	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms1.setVal	ING	INT32	SP	B	0				Off delay time 1	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms2.setVal	ING	INT32	SP	B	0				Off delay time 2	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms3.setVal	ING	INT32	SP	B	0				Off delay time 3	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms4.setVal	ING	INT32	SP	B	0				Off delay time 4	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms5.setVal	ING	INT32	SP	B	0				Off delay time 5	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms6.setVal	ING	INT32	SP	B	0				Off delay time 6	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms7.setVal	ING	INT32	SP	B	0				Off delay time 7	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	CFG	LD0.TOFGAPC2.OffDlTmms8.setVal	ING	INT32	SP	B	0				Off delay time 8	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC2	
TOFGAPC2	TOF(2)	TOF(2)	VER	LD0.TOFGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TOFGAPC3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	INP	LD0.TOFGAPC3.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Inputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	OUT	LD0.TOFGAPC3.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\TOFGAPC3\Outputs	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms1.setVal	ING	INT32	SP	B	0				Off delay time 1	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms2.setVal	ING	INT32	SP	B	0				Off delay time 2	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms3.setVal	ING	INT32	SP	B	0				Off delay time 3	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms4.setVal	ING	INT32	SP	B	0				Off delay time 4	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms5.setVal	ING	INT32	SP	B	0				Off delay time 5	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms6.setVal	ING	INT32	SP	B	0				Off delay time 6	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms7.setVal	ING	INT32	SP	B	0				Off delay time 7	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	CFG	LD0.TOFGAPC3.OffDlTmms8.setVal	ING	INT32	SP	B	0				Off delay time 8	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC3	
TOFGAPC3	TOF(3)	TOF(3)	VER	LD0.TOFGAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TOFGAPC4

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	INP	LD0.TOFGAPC4.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Inputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	

TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	OUT	LD0.TOFGAPC4.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\TOFGAPC4\Outputs	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms1.setVal	ING	INT32	SP	B	0				Off delay time 1	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms2.setVal	ING	INT32	SP	B	0				Off delay time 2	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms3.setVal	ING	INT32	SP	B	0				Off delay time 3	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms4.setVal	ING	INT32	SP	B	0				Off delay time 4	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms5.setVal	ING	INT32	SP	B	0				Off delay time 5	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms6.setVal	ING	INT32	SP	B	0				Off delay time 6	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms7.setVal	ING	INT32	SP	B	0				Off delay time 7	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	CFG	LD0.TOFGAPC4.OffDlTmms8.setVal	ING	INT32	SP	B	0				Off delay time 8	Off delay time	0...3600000 ms	Configuration\Generic timers\TOFGAPC4	
TOFGAPC4	TOF(4)	TOF(4)	VER	LD0.TOFGAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

PTGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	INP	LD0.PTGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\PTGAPC1\Inputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	OUT	LD0.PTGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\PTGAPC1\Outputs	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms1.setVal	ING	INT32	SP	B	0				Pulse time 1	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms2.setVal	ING	INT32	SP	B	0				Pulse time 2	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms3.setVal	ING	INT32	SP	B	0				Pulse time 3	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms4.setVal	ING	INT32	SP	B	0				Pulse time 4	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms5.setVal	ING	INT32	SP	B	0				Pulse time 5	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms6.setVal	ING	INT32	SP	B	0				Pulse time 6	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms7.setVal	ING	INT32	SP	B	0				Pulse time 7	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	

PTGAPC1	PT(1)	PT(1)	CFG	LD0.PTGAPC1.PlsTmms8.setVal	ING	INT32	SP	B	0				Pulse time 8	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC1	
PTGAPC1	PT(1)	PT(1)	VER	LD0.PTGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

PTGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input 3 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input 4 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input 5 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input 6 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input 7 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	INP	LD0.PTGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input 8 status		Monitoring\I/O status\Generic timers\PTGAPC2\Inputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B					Q1	Output 1 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B					Q2	Output 2 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B					Q3	Output 3 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B					Q4	Output 4 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B					Q5	Output 5 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B					Q6	Output 6 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B					Q7	Output 7 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	OUT	LD0.PTGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B					Q8	Output 8 status		Monitoring\I/O status\Generic timers\PTGAPC2\Outputs	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms1.setVal	ING	INT32	SP	B	0				Pulse time 1	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms2.setVal	ING	INT32	SP	B	0				Pulse time 2	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms3.setVal	ING	INT32	SP	B	0				Pulse time 3	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms4.setVal	ING	INT32	SP	B	0				Pulse time 4	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms5.setVal	ING	INT32	SP	B	0				Pulse time 5	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms6.setVal	ING	INT32	SP	B	0				Pulse time 6	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms7.setVal	ING	INT32	SP	B	0				Pulse time 7	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	CFG	LD0.PTGAPC2.PlsTmms8.setVal	ING	INT32	SP	B	0				Pulse time 8	Pulse time	0...3600000 ms	Configuration\Generic timers\PTGAPC2	
PTGAPC2	PT(2)	PT(2)	VER	LD0.PTGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

SCA4GAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SCA4GAPC1	SCA4(1)	SCA4(1)	INP	LD0.SCA4GAPC1.AnIn1.mag.f	MV	FLOAT32	MX	B	0.0				AI1_VALUE	Analog input value of channel 1	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Inputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	INP	LD0.SCA4GAPC1.AnIn2.mag.f	MV	FLOAT32	MX	B	0.0				AI2_VALUE	Analog input value of channel 2	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Inputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	INP	LD0.SCA4GAPC1.AnIn3.mag.f	MV	FLOAT32	MX	B	0.0				AI3_VALUE	Analog input value of channel 3	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Inputs	

SCA4GAPC1	SCA4(1)	SCA4(1)	INP	LD0.SCA4GAPC1.AnIn4.mag.f	MV	FLOAT32	MX	B	0.0				AI4_VALUE	Analog input value of channel 4	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Inputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	OUT	LD0.SCA4GAPC1.AnValOut1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO1_VALUE	Analog value 1 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Outputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	OUT	LD0.SCA4GAPC1.AnValOut2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO2_VALUE	Analog value 2 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Outputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	OUT	LD0.SCA4GAPC1.AnValOut3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO3_VALUE	Analog value 3 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Outputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	OUT	LD0.SCA4GAPC1.AnValOut4.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO4_VALUE	Analog value 4 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC1\Outputs	
SCA4GAPC1	SCA4(1)	SCA4(1)	CFG	LD0.SCA4GAPC1.ScaleAnIn1.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 1	Scale ratio for analog value 1	0.001...1000.000	Configuration\Generic logic\SCA4GAPC1	
SCA4GAPC1	SCA4(1)	SCA4(1)	CFG	LD0.SCA4GAPC1.ScaleAnIn2.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 2	Scale ratio for analog value 2	0.001...1000.000	Configuration\Generic logic\SCA4GAPC1	
SCA4GAPC1	SCA4(1)	SCA4(1)	CFG	LD0.SCA4GAPC1.ScaleAnIn3.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 3	Scale ratio for analog value 3	0.001...1000.000	Configuration\Generic logic\SCA4GAPC1	
SCA4GAPC1	SCA4(1)	SCA4(1)	CFG	LD0.SCA4GAPC1.ScaleAnIn4.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 4	Scale ratio for analog value 4	0.001...1000.000	Configuration\Generic logic\SCA4GAPC1	
SCA4GAPC1	SCA4(1)	SCA4(1)	VER	LD0.SCA4GAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SCA4GAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SCA4GAPC2	SCA4(2)	SCA4(2)	INP	LD0.SCA4GAPC2.AnIn1.mag.f	MV	FLOAT32	MX	B	0.0				AI1_VALUE	Analog input value of channel 1	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Inputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	INP	LD0.SCA4GAPC2.AnIn2.mag.f	MV	FLOAT32	MX	B	0.0				AI2_VALUE	Analog input value of channel 2	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Inputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	INP	LD0.SCA4GAPC2.AnIn3.mag.f	MV	FLOAT32	MX	B	0.0				AI3_VALUE	Analog input value of channel 3	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Inputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	INP	LD0.SCA4GAPC2.AnIn4.mag.f	MV	FLOAT32	MX	B	0.0				AI4_VALUE	Analog input value of channel 4	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Inputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	OUT	LD0.SCA4GAPC2.AnValOut1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO1_VALUE	Analog value 1 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Outputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	OUT	LD0.SCA4GAPC2.AnValOut2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO2_VALUE	Analog value 2 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Outputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	OUT	LD0.SCA4GAPC2.AnValOut3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO3_VALUE	Analog value 3 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Outputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	OUT	LD0.SCA4GAPC2.AnValOut4.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO4_VALUE	Analog value 4 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC2\Outputs	
SCA4GAPC2	SCA4(2)	SCA4(2)	CFG	LD0.SCA4GAPC2.ScaleAnIn1.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 1	Scale ratio for analog value 1	0.001...1000.000	Configuration\Generic logic\SCA4GAPC2	
SCA4GAPC2	SCA4(2)	SCA4(2)	CFG	LD0.SCA4GAPC2.ScaleAnIn2.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 2	Scale ratio for analog value 2	0.001...1000.000	Configuration\Generic logic\SCA4GAPC2	
SCA4GAPC2	SCA4(2)	SCA4(2)	CFG	LD0.SCA4GAPC2.ScaleAnIn3.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 3	Scale ratio for analog value 3	0.001...1000.000	Configuration\Generic logic\SCA4GAPC2	
SCA4GAPC2	SCA4(2)	SCA4(2)	CFG	LD0.SCA4GAPC2.ScaleAnIn4.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 4	Scale ratio for analog value 4	0.001...1000.000	Configuration\Generic logic\SCA4GAPC2	
SCA4GAPC2	SCA4(2)	SCA4(2)	VER	LD0.SCA4GAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SCA4GAPC3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SCA4GAPC3	SCA4(3)	SCA4(3)	INP	LD0.SCA4GAPC3.AnIn1.mag.f	MV	FLOAT32	MX	B	0.0				AI1_VALUE	Analog input value of channel 1	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Inputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	INP	LD0.SCA4GAPC3.AnIn2.mag.f	MV	FLOAT32	MX	B	0.0				AI2_VALUE	Analog input value of channel 2	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Inputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	INP	LD0.SCA4GAPC3.AnIn3.mag.f	MV	FLOAT32	MX	B	0.0				AI3_VALUE	Analog input value of channel 3	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Inputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	INP	LD0.SCA4GAPC3.AnIn4.mag.f	MV	FLOAT32	MX	B	0.0				AI4_VALUE	Analog input value of channel 4	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Inputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	OUT	LD0.SCA4GAPC3.AnValOut1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO1_VALUE	Analog value 1 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Outputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	OUT	LD0.SCA4GAPC3.AnValOut2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO2_VALUE	Analog value 2 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Outputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	OUT	LD0.SCA4GAPC3.AnValOut3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO3_VALUE	Analog value 3 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Outputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	OUT	LD0.SCA4GAPC3.AnValOut4.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO4_VALUE	Analog value 4 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC3\Outputs	
SCA4GAPC3	SCA4(3)	SCA4(3)	CFG	LD0.SCA4GAPC3.ScaleAnIn1.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 1	Scale ratio for analog value 1	0.001...1000.000	Configuration\Generic logic\SCA4GAPC3	
SCA4GAPC3	SCA4(3)	SCA4(3)	CFG	LD0.SCA4GAPC3.ScaleAnIn2.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 2	Scale ratio for analog value 2	0.001...1000.000	Configuration\Generic logic\SCA4GAPC3	
SCA4GAPC3	SCA4(3)	SCA4(3)	CFG	LD0.SCA4GAPC3.ScaleAnIn3.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 3	Scale ratio for analog value 3	0.001...1000.000	Configuration\Generic logic\SCA4GAPC3	
SCA4GAPC3	SCA4(3)	SCA4(3)	CFG	LD0.SCA4GAPC3.ScaleAnIn4.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 4	Scale ratio for analog value 4	0.001...1000.000	Configuration\Generic logic\SCA4GAPC3	
SCA4GAPC3	SCA4(3)	SCA4(3)	VER	LD0.SCA4GAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SCA4GAPC4

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SCA4GAPC4	SCA4(4)	SCA4(4)	INP	LD0.SCA4GAPC4.AnIn1.mag.f	MV	FLOAT32	MX	B	0.0				AI1_VALUE	Analog input value of channel 1	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Inputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	INP	LD0.SCA4GAPC4.AnIn2.mag.f	MV	FLOAT32	MX	B	0.0				AI2_VALUE	Analog input value of channel 2	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Inputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	INP	LD0.SCA4GAPC4.AnIn3.mag.f	MV	FLOAT32	MX	B	0.0				AI3_VALUE	Analog input value of channel 3	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Inputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	INP	LD0.SCA4GAPC4.AnIn4.mag.f	MV	FLOAT32	MX	B	0.0				AI4_VALUE	Analog input value of channel 4	-10000.0...10000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Inputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	OUT	LD0.SCA4GAPC4.AnValOut1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO1_VALUE	Analog value 1 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Outputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	OUT	LD0.SCA4GAPC4.AnValOut2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO2_VALUE	Analog value 2 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Outputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	OUT	LD0.SCA4GAPC4.AnValOut3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO3_VALUE	Analog value 3 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Outputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	OUT	LD0.SCA4GAPC4.AnValOut4.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AO4_VALUE	Analog value 4 after scaling	-2000000.0...2000000.0	Monitoring\I/O status\Generic logic\SCA4GAPC4\Outputs	
SCA4GAPC4	SCA4(4)	SCA4(4)	CFG	LD0.SCA4GAPC4.ScaleAnIn1.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 1	Scale ratio for analog value 1	0.001...1000.000	Configuration\Generic logic\SCA4GAPC4	

SCA4GAPC4	SCA4(4)	SCA4(4)	CFG	LD0.SCA4GAPC4.ScaleAnIn2.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 2	Scale ratio for analog value 2	0.001...1000.000	Configuration\Generic logic\SCA4GAPC4	
SCA4GAPC4	SCA4(4)	SCA4(4)	CFG	LD0.SCA4GAPC4.ScaleAnIn3.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 3	Scale ratio for analog value 3	0.001...1000.000	Configuration\Generic logic\SCA4GAPC4	
SCA4GAPC4	SCA4(4)	SCA4(4)	CFG	LD0.SCA4GAPC4.ScaleAnIn4.setMag.f	ASG	FLOAT32	SP	B	1.000				Scale ratio 4	Scale ratio for analog value 4	0.001...1000.000	Configuration\Generic logic\SCA4GAPC4	
SCA4GAPC4	SCA4(4)	SCA4(4)	VER	LD0.SCA4GAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

MVI4GAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MVI4GAPC1	MVI4(1)	MVI4(1)	INP	LD0.MVI4GAPC1.IntIn1.stVal	INS	INT32	ST	B	0				IN1	Integer input value 1	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Inputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	INP	LD0.MVI4GAPC1.IntIn2.stVal	INS	INT32	ST	B	0				IN2	Integer input value 2	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Inputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	INP	LD0.MVI4GAPC1.IntIn3.stVal	INS	INT32	ST	B	0				IN3	Integer input value 3	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Inputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	INP	LD0.MVI4GAPC1.IntIn4.stVal	INS	INT32	ST	B	0				IN4	Integer input value 4	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Inputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	OUT	LD0.MVI4GAPC1.ISCSO1.stVal	INC	INT32	ST	B		MeasFlt	P	MB,DN	OUT1	Integer output value 1	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Outputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	OUT	LD0.MVI4GAPC1.ISCSO2.stVal	INC	INT32	ST	B		MeasFlt	P	MB,DN	OUT2	Integer output value 2	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Outputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	OUT	LD0.MVI4GAPC1.ISCSO3.stVal	INC	INT32	ST	B		MeasFlt	P	MB,DN	OUT3	Integer output value 3	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Outputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	OUT	LD0.MVI4GAPC1.ISCSO4.stVal	INC	INT32	ST	B		MeasFlt	P	MB,DN	OUT4	Integer output value 4	-2147483648...2147483647	Monitoring\I/O status\Generic logic\MVI4GAPC1\Outputs	
MVI4GAPC1	MVI4(1)	MVI4(1)	VER	LD0.MVI4GAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TRPPTRC1: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TRPPTRC1	Master Trip(1)	94/86(1)	INP	LD0.TRPPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC1\Inputs	
TRPPTRC1	Master Trip(1)	94/86(1)	INP	LD0.TRPPTRC1.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC1\Inputs	
TRPPTRC1	Master Trip(1)	94/86(1)	INP	LD0.TRPPTRC1.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC1\Inputs	
TRPPTRC1	Master Trip(1)	94/86(1)	OUT	LD0.TRPPTRC1.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC1\Outputs	
TRPPTRC1	Master Trip(1)	94/86(1)	OUT	LD0.TRPPTRC1.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC1\Outputs	
TRPPTRC1	Master Trip(1)	94/86(1)	CTR	LD0.TRPPTRC1.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC1	Reset TRPPTRC1 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC1	Master Trip(1)	94/86(1)	CTR	LD0.TRPPTRC1.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC1	Master Trip(1)	94/86(1)	MON	LD0.TRPPTRC1.Beh.stVal	ENS	Enum	ST	B					TRPPTRC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC1	Master Trip(1)	94/86(1)	CFG	LD0.TRPPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC1	
TRPPTRC1	Master Trip(1)	94/86(1)	CFG	LD0.TRPPTRC1.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC1	

TRPPTRC1	Master Trip(1)	94/86(1)	CFG	LD0.TRPPTRC1.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC1	
TRPPTRC1	Master Trip(1)	94/86(1)	VER	LD0.TRPPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

TRPPTRC2: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TRPPTRC2	Master Trip(2)	94/86(2)	INP	LD0.TRPPTRC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC2\Inputs	
TRPPTRC2	Master Trip(2)	94/86(2)	INP	LD0.TRPPTRC2.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC2\Inputs	
TRPPTRC2	Master Trip(2)	94/86(2)	INP	LD0.TRPPTRC2.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC2\Inputs	
TRPPTRC2	Master Trip(2)	94/86(2)	OUT	LD0.TRPPTRC2.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC2\Outputs	
TRPPTRC2	Master Trip(2)	94/86(2)	OUT	LD0.TRPPTRC2.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC2\Outputs	
TRPPTRC2	Master Trip(2)	94/86(2)	CTR	LD0.TRPPTRC2.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC2	Reset TRPPTRC2 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC2	Master Trip(2)	94/86(2)	CTR	LD0.TRPPTRC2.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC2	Master Trip(2)	94/86(2)	MON	LD0.TRPPTRC2.Beh.stVal	ENS	Enum	ST	B					TRPPTRC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC2	Master Trip(2)	94/86(2)	CFG	LD0.TRPPTRC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC2	IL1TCTR1
TRPPTRC2	Master Trip(2)	94/86(2)	CFG	LD0.TRPPTRC2.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC2	
TRPPTRC2	Master Trip(2)	94/86(2)	CFG	LD0.TRPPTRC2.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC2	
TRPPTRC2	Master Trip(2)	94/86(2)	VER	LD0.TRPPTRC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

Global conditioning

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Global conditioning			INP	LD0.LEDPTRC1.InRs.stVal	SPS	BOOLEAN	ST		0					(Reset)			
Global conditioning			INP	LD0.LEDPTRC1.InOp.stVal	SPS	BOOLEAN	ST		0					(Input operate)			
Global conditioning			INP	LD0.LEDPTRC1.InStr.stVal	SPS	BOOLEAN	ST		0					(Input start)			
Global conditioning			OUT	LD0.LEDPTRC1.Op.general	ACT	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Operate)	(A,B,C,N)		
Global conditioning			OUT	LD0.LEDPTRC1.Op.phsA	ACT	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Operate)			
Global conditioning			OUT	LD0.LEDPTRC1.Op.phsB	ACT	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Operate)			
Global conditioning			OUT	LD0.LEDPTRC1.Op.phsC	ACT	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Operate)			
Global conditioning			OUT	LD0.LEDPTRC1.Op.neut	ACT	BOOLEAN	ST			StatIed	P,H			(Operate)			

Global conditioning			OUT	LD0.LEDPTRC1.Str.general	ACD	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Start)	(A,B,C,N)		
Global conditioning			OUT	LD0.LEDPTRC1.Str.phsA	ACD	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Start)			
Global conditioning			OUT	LD0.LEDPTRC1.Str.phsB	ACD	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Start)			
Global conditioning			OUT	LD0.LEDPTRC1.Str.phsC	ACD	BOOLEAN	ST			StatIed	P,H	MB,DN,I3,I1		(Start)			
Global conditioning			OUT	LD0.LEDPTRC1.Str.neut	ACD	BOOLEAN	ST			StatIed	P,H			(Start)			
Global conditioning			MON	LD0.LEDPTRC1.Str.dirGeneral	ACD	Enum	ST			StatIed	P,H	MB,DN,I3,I1		(Start)	0=unknown1=forward2=backward3=both		
Global conditioning			MON	LD0.LEDPTRC1.Str.dirPhsA	ACD	Enum	ST			StatIed	P,H	MB,DN,I3,I1		(Start)	-1=both0=unknown1=forward2=backward		
Global conditioning			MON	LD0.LEDPTRC1.Str.dirPhsB	ACD	Enum	ST			StatIed	P,H	MB,DN,I3,I1		(Start)	-1=both0=unknown1=forward2=backward		
Global conditioning			MON	LD0.LEDPTRC1.Str.dirPhsC	ACD	Enum	ST			StatIed	P,H			(Start)	-1=both0=unknown1=forward2=backward		
Global conditioning			MON	LD0.LEDPTRC1.Str.dirNeut	ACD	Enum	ST			StatIed	P,H			(Start)	-1=both0=unknown1=forward2=backward		
Global conditioning			VER	LD0.LEDPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	G					(Name plate)			

TCSSCBR1: Trip circuit supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TCSSCBR1	TCS(1)	TCM(1)	INP	LD0.TCSSCBR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block input status		Monitoring\I/O status\Condition monitoring\TCSSCBR1\Inputs	
TCSSCBR1	TCS(1)	TCM(1)	OUT	LD0.TCSSCBR1.CircAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\TCSSCBR1\Outputs	
TCSSCBR1	TCS(1)	TCM(1)	MON	LD0.TCSSCBR1.Beh.stVal	ENS	Enum	ST	B					TCSSCBR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TCSSCBR1	TCS(1)	TCM(1)	CFG	LD0.TCSSCBR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\TCSSCBR1	
TCSSCBR1	TCS(1)	TCM(1)	CFG	LD0.TCSSCBR1.OpDlTmms.setVal	ING	INT32	SP	B	3000				Operate delay time	Operate delay time	20...300000 ms	Configuration\Condition monitoring\TCSSCBR1	
TCSSCBR1	TCS(1)	TCM(1)	CFG	LD0.TCSSCBR1.RsDlTmms.setVal	ING	INT32	SP	A	1000				Reset delay time	Reset delay time	20...60000 ms	Configuration\Condition monitoring\TCSSCBR1	
TCSSCBR1	TCS(1)	TCM(1)	TES	LD0.TCSSCBR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				TCSSCBR1	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Condition monitoring	
TCSSCBR1	TCS(1)	TCM(1)	VER	LD0.TCSSCBR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TCSSCBR2: Trip circuit supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TCSSCBR2	TCS(2)	TCM(2)	INP	LD0.TCSSCBR2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block input status		Monitoring\I/O status\Condition monitoring\TCSSCBR2\Inputs	
TCSSCBR2	TCS(2)	TCM(2)	OUT	LD0.TCSSCBR2.CircAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\TCSSCBR2\Outputs	
TCSSCBR2	TCS(2)	TCM(2)	MON	LD0.TCSSCBR2.Beh.stVal	ENS	Enum	ST	B					TCSSCBR2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TCSSCBR2	TCS(2)	TCM(2)	CFG	LD0.TCSSCBR2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\TCSSCBR2	
TCSSCBR2	TCS(2)	TCM(2)	CFG	LD0.TCSSCBR2.OpDlTmms.setVal	ING	INT32	SP	B	3000				Operate delay time	Operate delay time	20...300000 ms	Configuration\Condition monitoring\TCSSCBR2	

TCSSCBR2	TCS(2)	TCM(2)	CFG	LD0.TCSSCBR2.RsDlTmms.setVal	ING	INT32	SP	A	1000				Reset delay time	Reset delay time	20...60000 ms	Configuration\Condition monitoring\TCSSCBR2	
TCSSCBR2	TCS(2)	TCM(2)	TES	LD0.TCSSCBR2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				TCSSCBR2	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Condition monitoring	
TCSSCBR2	TCS(2)	TCM(2)	VER	LD0.TCSSCBR2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPGAPC1	TP(1)	TP(1)	INP	LD0.TPGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPGAPC1\Inputs	
TPGAPC1	TP(1)	TP(1)	INP	LD0.TPGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPGAPC1\Inputs	
TPGAPC1	TP(1)	TP(1)	OUT	LD0.TPGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPGAPC1\Outputs	
TPGAPC1	TP(1)	TP(1)	OUT	LD0.TPGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPGAPC1\Outputs	
TPGAPC1	TP(1)	TP(1)	CFG	LD0.TPGAPC1.PlsTmms.setVal	ING	INT32	SP	B	150				Pulse time	Minimum pulse time	0...60000 ms	Configuration\Generic timers\TPGAPC1	
TPGAPC1	TP(1)	TP(1)	VER	LD0.TPGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPGAPC2	TP(2)	TP(2)	INP	LD0.TPGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPGAPC2\Inputs	
TPGAPC2	TP(2)	TP(2)	INP	LD0.TPGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPGAPC2\Inputs	
TPGAPC2	TP(2)	TP(2)	OUT	LD0.TPGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPGAPC2\Outputs	
TPGAPC2	TP(2)	TP(2)	OUT	LD0.TPGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPGAPC2\Outputs	
TPGAPC2	TP(2)	TP(2)	CFG	LD0.TPGAPC2.PlsTmms.setVal	ING	INT32	SP	B	150				Pulse time	Minimum pulse time	0...60000 ms	Configuration\Generic timers\TPGAPC2	
TPGAPC2	TP(2)	TP(2)	VER	LD0.TPGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPGAPC3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPGAPC3	TP(3)	TP(3)	INP	LD0.TPGAPC3.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPGAPC3\Inputs	
TPGAPC3	TP(3)	TP(3)	INP	LD0.TPGAPC3.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPGAPC3\Inputs	
TPGAPC3	TP(3)	TP(3)	OUT	LD0.TPGAPC3.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPGAPC3\Outputs	
TPGAPC3	TP(3)	TP(3)	OUT	LD0.TPGAPC3.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPGAPC3\Outputs	
TPGAPC3	TP(3)	TP(3)	CFG	LD0.TPGAPC3.PlsTmms.setVal	ING	INT32	SP	B	150				Pulse time	Minimum pulse time	0...60000 ms	Configuration\Generic timers\TPGAPC3	
TPGAPC3	TP(3)	TP(3)	VER	LD0.TPGAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPGAPC4

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPGAPC4	TP(4)	TP(4)	INP	LD0.TPGAPC4.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPGAPC4\Inputs	
TPGAPC4	TP(4)	TP(4)	INP	LD0.TPGAPC4.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPGAPC4\Inputs	

TPGAPC4	TP(4)	TP(4)	OUT	LD0.TPGAPC4.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPGAPC4\Outputs	
TPGAPC4	TP(4)	TP(4)	OUT	LD0.TPGAPC4.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPGAPC4\Outputs	
TPGAPC4	TP(4)	TP(4)	CFG	LD0.TPGAPC4.PlsTmms.setVal	ING	INT32	SP	B	150				Pulse time	Minimum pulse time	0...60000 ms	Configuration\Generic timers\TPGAPC4	
TPGAPC4	TP(4)	TP(4)	VER	LD0.TPGAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPSGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPSGAPC1	TPS(1)	TPS(1)	INP	LD0.TPSGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPSGAPC1\Inputs	
TPSGAPC1	TPS(1)	TPS(1)	INP	LD0.TPSGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPSGAPC1\Inputs	
TPSGAPC1	TPS(1)	TPS(1)	OUT	LD0.TPSGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPSGAPC1\Outputs	
TPSGAPC1	TPS(1)	TPS(1)	OUT	LD0.TPSGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPSGAPC1\Outputs	
TPSGAPC1	TPS(1)	TPS(1)	CFG	LD0.TPSGAPC1.PlsTms.setVal	ING	INT32	SP	B	0				Pulse time	Minimum pulse time	0...300 s	Configuration\Generic timers\TPSGAPC1	
TPSGAPC1	TPS(1)	TPS(1)	VER	LD0.TPSGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

TPMGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPMGAPC1	TPM(1)	TPM(1)	INP	LD0.TPMGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input 1		Monitoring\I/O status\Generic timers\TPMGAPC1\Inputs	
TPMGAPC1	TPM(1)	TPM(1)	INP	LD0.TPMGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input 2		Monitoring\I/O status\Generic timers\TPMGAPC1\Inputs	
TPMGAPC1	TPM(1)	TPM(1)	OUT	LD0.TPMGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B					OUT1	Output 1 status		Monitoring\I/O status\Generic timers\TPMGAPC1\Outputs	
TPMGAPC1	TPM(1)	TPM(1)	OUT	LD0.TPMGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B					OUT2	Output 2 status		Monitoring\I/O status\Generic timers\TPMGAPC1\Outputs	
TPMGAPC1	TPM(1)	TPM(1)	CFG	LD0.TPMGAPC1.PlsTmm.setVal	ING	INT32	SP	B	0				Pulse time	Minimum pulse time	0...300 min	Configuration\Generic timers\TPMGAPC1	
TPMGAPC1	TPM(1)	TPM(1)	VER	LD0.TPMGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

FLTRFRC1: Fault record

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FLTRFRC1	FaultRec1	FaultRec1	INP	LD0.FLTRFRC1.Blk.stVal	SPS	BOOLEAN	ST		0					(Block signal for all binary outputs)			
FLTRFRC1	FaultRec1	FaultRec1	INP	LD0.FLTRFRC1.InOp.stVal	SPS	BOOLEAN	ST		0					(Operate input for triggering)			
FLTRFRC1	FaultRec1	FaultRec1	INP	LD0.FLTRFRC1.InStr.stVal	SPS	BOOLEAN	ST		0					(Start input for triggering)			
FLTRFRC1	FaultRec1	FaultRec1	INP	LD0.FLTRFRC1.InCBClr.stVal	SPS	BOOLEAN	ST		0					(Breaker open status)			
FLTRFRC1	FaultRec1	FaultRec1	CTR	LD0.FLTRFRC1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Fault records	Reset fault records	0=Cancel; 1=Clear	Clear\Clear	
FLTRFRC1	FaultRec1	FaultRec1	CTR	LD0.FLTRFRC1.SelRow.Oper.ctlVal	INC	INT32	CO					DN		(Select recording)			
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Hz.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Frequency	Frequency	30.00...80.00 Hz	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.FltPtR.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Fault resistance	Fault resistance	0.00...1000000.00 ohm	Monitoring\Recorded data\Fault record	

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.FltDiskm.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Fault distance	Distance to fault measured in pu	0.00...3000.00 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.OpCnt.stVal	INS	INT32	ST	B		MeasReg	P	MB,DN	Fault number	Fault record number	0...999999	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.OpCnt.t	INS	Timestamp	ST	B		MeasReg	P	DN	Time and date	Fault record time stamp		Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ProFcn.stVal	ENS	Enum	ST	B		MeasReg	P	MB,DN	Protection	Protection function	0=Unknown; 1=PHLPTOC1; 2=PHLPTOC2; 6=PHHPTOC1; 7=PHHPTOC2; 8=PHHPTOC3; 9=PHHPTOC4; 12=PHIPTOC1; 13=PHIPTOC2; 17=EFLPTOC1; 18=EFLPTOC2; 19=EFLPTOC3; 22=EFHPTOC1; 23=EFHPTOC2; 24=EFHPTOC3; 25=EFHPTOC4; 30=EFIPTOC1; 31=EFIPTOC2; 32=EFIPTOC3; 35=NSPTOC1; 36=NSPTOC2; -7=INTRPTEF1; -5=STTPMSU1; -3=JAMPTOC1; 41=PDNSPTOC1; 44=T1PTTR1; 46=T2PTTR1; 48=MPTTR1; 50=DEFLPDEF1; 51=DEFLPDEF2; 53=DEFHPDEF1; 56=EFPADM1; 57=EFPADM2; 58=EFPADM3; 59=FRPFRQ1; 60=FRPFRQ2; 61=FRPFRQ3; 62=FRPFRQ4; 63=FRPFRQ5; 64=FRPFRQ6; 65=LSHDPFRQ1; 66=LSHDPFRQ2; 67=LSHDPFRQ3; 68=LSHDPFRQ4; 69=LSHDPFRQ5; 71=DPHLPDOC1; 72=DPHLPDOC2; 74=DPHHPDOC1; 77=MAPGAPC1; 78=MAPGAPC2; 79=MAPGAPC3; 85=MNSPTOC1; 86=MNSPTOC2; 88=LOFLPTUC1; 90=TR2PTDF1; 91=LNPLDF1; 92=LREFPNDF1; 94=MPDIF1; 96=HREFPDIF1; 100=ROVPTOV1; 101=ROVPTOV2; 102=ROVPTOV3; 104=PHPTOV1; 105=PHPTOV2; 106=PHPTOV3; 108=PHPTUV1; 109=PHPTUV2; 110=PHPTUV3; 112=NSPTOV1; 113=NSPTOV2; 116=PSPTUV1; 118=ARCSARC1; 119=ARCSARC2; 120=ARCSARC3; -96=SPHIPTOC1; -93=SPHLPTOC2; -92=SPHLPTOC1; -89=SPHHPTOC2; -88=SPHHPTOC1; -87=SPHPTUV4; -86=SPHPTUV3; -85=SPHPTUV2; -84=SPHPTUV1; -83=SPHPTOV4; -82=SPHPTOV3; -81=SPHPTOV2; -80=SPHPTOV1; -25=OEPVPH4; -24=OEPVPH3; -23=OEPVPH2; -22=OEPVPH1; -19=PSPTOV2; -18=PSPTOV1; -15=PREVPTOC1; -12=PHPTUC2; -11=PHPTUC1; -9=PHIZ1; 5=PHLTPTOC1; 20=EFLPTOC4; 26=EFHPTOC5; 27=EFHPTOC6; 37=NSPTOC3; 38=NSPTOC4; 45=T1PTTR2; 54=DEFHPDEF2; 75=DPHHPDOC2; 89=LOFLPTUC2; 103=ROVPTOV4; 117=PSPTUV2; -13=PHPTUC3; 3=PHLPTOC3; 10=PHHPTOC5; 11=PHHPTOC6; 28=EFHPTOC7; 29=EFHPTOC8; 107=PHPTOV4; 111=PHPTUV4; 114=NSPTOV3; 115=NSPTOV4; -30=PHDSTPDIS1; -29=TR3PTDF1; -28=HICPDIF1; -27=HIBPDIF1; -26=HIAPDIF1; -32=LSHDPFRQ8; -31=LSHDPFRQ7; 70=LSHDPFRQ6; 80=MAPGAPC4; 81=MAPGAPC5; 82=MAPGAPC6; 83=MAPGAPC7; -102=MAPGAPC12; -101=MAPGAPC11; -100=MAPGAPC10; -99=MAPGAPC9; -98=RESCPSCH1; -57=FDEFLPDEF2; -56=FDEFLPDEF1; -54=FEFLPTOC1; -53=FDPHLPDOC2; -52=FDPHLPDOC1; -50=FPHLPTOC1; -47=MAP12GAPC8; -46=MAP12GAPC7; -45=MAP12GAPC6; -44=MAP12GAPC5; -43=MAP12GAPC4; -42=MAP12GAPC3; -41=MAP12GAPC2; -40=MAP12GAPC1; -37=HAEFPTOC1; -35=WPWDE3; -34=WPWDE2; -33=WPWDE1; 52=DEFLPDEF3;	Monitoring\Recorded data\Fault record	

															84=MAPGAPC8; 93=LREFPNDF2; 97=HREFPDIF2; -117=XDEFLPDEF2; -116=XDEFLPDEF1; -115=SDPHLPDOC2; -114=SDPHLPDOC1; -113=XNSPTOC2; -112=XNSPTOC1; -111=XEFIPTOC2; -110=XEFHPTOC4; -109=XEFHPTOC3; -108=XEFLPTOC3; -107=XEFLPTOC2; -66=DQPTUV1; -65=VVSPPAM1; -64=PHPVOC1; -63=H3EFPSEF1; -60=HCUBPTOC1; -59=CUBPTOC1; -72=DOPPDPR1; -69=DUPPDPR1; -61=COLPTOC1; -106=MAPGAPC16; -105=MAPGAPC15; -104=MAPGAPC14; -103=MAPGAPC13; -76=MAPGAPC18; -75=MAPGAPC17; -62=SRCPTOC1; -74=DOPPDPR3; -73=DOPPDPR2; -70=DUPPDPR2; -58=UZPDIS1; -36=UEXPDIS1; 14=MFADPSDE1; -10=LVRTPTUV1; -8=LVRTPTUV2; -6=LVRTPTUV3; -122=DPH3LPDOC1; -121=DPH3HPDOC2; -120=DPH3HPDOC1; -119=PH3LPTOC2; -118=PH3LPTOC1; -79=PH3HPTOC2; -78=PH3HPTOC1; -77=PH3IPTOC1; -127=PHAPTUV1; -124=PHAPTOV1; -123=DPH3LPDOC2; -68=PHPVOC2; -67=DQPTUV2; -39=UEXPDIS2; 98=MHZPDIF1; -4=MREFPTOC1		
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.StrDur.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN	Start duration	Maximum start duration of all stages during the fault	0.00...100.00 %	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.StrOpTm.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN	Operate time	Operate time	0.000...999999.999 s	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ActSetGr.stVal	INC	INT32	ST	B		MeasReg	P	MB,DN	Active group	Active setting group	1...6	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ShotPntr.stVal	INS	INT32	ST	B		MeasReg	P	MB,DN	Shot pointer	Autoreclosing shot pointer value	1...7	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50DifAA.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max diff current IL1	Maximum phase A differential current	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50DifAB.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max diff current IL2	Maximum phase B differential current	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50DifAC.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max diff current IL3	Maximum phase C differential current	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50RstAA.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max bias current IL1	Maximum phase A bias current	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50RstAB.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max bias current IL2	Maximum phase B bias current	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50RstAC.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max bias current IL3	Maximum phase C bias current	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAPhsA.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Diff current IL1	Differential current phase A	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAPhsB.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Diff current IL2	Differential current phase B	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAPhsC.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Diff current IL3	Differential current phase C	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.RstAPhsA.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Bias current IL1	Bias current phase A	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.RstAPhsB.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Bias current IL2	Bias current phase B	0.000...50.000 pu	Monitoring\Recorded data\Fault record	

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.RstAPhsC.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Bias current IL3	Bias current phase C	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifARes.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Diff current Io	Differential current residual	0.000...80.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.RstARes.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Bias current Io	Bias current residual	0.000...50.000 pu	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsA1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL1	Maximum phase A current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhA1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL1	Maximum phase A current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsB1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL2	Maximum phase B current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhB1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL2	Maximum phase B current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsC1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL3	Maximum phase C current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhC1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL3	Maximum phase C current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50ARes1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max current Io	Maximum residual current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsA1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL1	Phase A current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsB1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL2	Phase B current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsC1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL3	Phase C current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ARes1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Io	Residual current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.AResClc1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Io-Calc	Calculated residual current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APsSeq1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ps-Seq	Positive sequence current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ANgSeq1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ng-Seq	Negative sequence current	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsA2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL1B	Maximum phase A current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhA2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL1B	Maximum phase A current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsB2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL2B	Maximum phase B current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhB2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL2B	Maximum phase B current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsC2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL3B	Maximum phase C current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhC2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL3B	Maximum phase C current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50ARes2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max current IoB	Maximum residual current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsA2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL1B	Phase A current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsB2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL2B	Phase B current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsC2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL3B	Phase C current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ARes2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IoB	Residual current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.AResClc2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Io-CalcB	Calculated residual current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APsSeq2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ps-SeqB	Positive sequence current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ANgSeq2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ng-SeqB	Negative sequence current (b)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsA3.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL1C	Maximum phase A current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhA3.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL1C	Maximum phase A current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsB3.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL2C	Maximum phase B current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhB3.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL2C	Maximum phase B current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhsC3.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Max current IL3C	Maximum phase C current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50APhC3.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Max current IL3C	Maximum phase C current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.Max50ARes3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Max current IoC	Maximum residual current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsA3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL1C	Phase A current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsB3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL2C	Phase B current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APhsC3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IL3C	Phase C current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ARes3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current IoC	Residual current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	RESTCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.AResClc3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Io-CalcC	Calculated residual current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.APsSeq3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ps-SeqC	Positive sequence current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.ANgSeq3.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Current Ng-SeqC	Negative sequence current (c)	0.000...50.000 xIn	Monitoring\Recorded data\Fault record	IL1TCTR3
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsA1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL1	Phase A voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsB1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL2	Phase B voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsC1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL3	Phase C voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsAB1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U12	Phase A to phase B voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsBC1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U23	Phase B to phase C voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsCA1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U31	Phase C to phase A voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VRes1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Uo	Residual voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	RESTVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VZro1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Zro-Seq	Zero sequence voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VPsSeq1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Ps-Seq	Positive sequence voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VNgSeq1.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Ng-Seq	Negative sequence voltage	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR1
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsA2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL1B	Phase A voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsB2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL2B	Phase B voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PhVPhsC2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UL3B	Phase B voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsAB2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U12B	Phase A to phase B voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsBC2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U23B	Phase B to phase C voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPVPhsCA2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage U31B	Phase C to phase A voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VRes2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage UoB	Residual voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	RESTVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VZro2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Zro-SeqB	Zero sequence voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VPsSeq2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Ps-SeqB	Positive sequence voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.VNgSeq2.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Voltage Ng-SeqB	Negative sequence voltage (b)	0.000...4.000 xUn	Monitoring\Recorded data\Fault record	UL1TVTR2
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.MaxTmpRl.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	PTTR thermal level	PTTR calculated temperature of the protected object relative to the operate level	0.00...99.99	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.AMaxNgPs.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	PDNSPTOC1 rat. I2/I1	PDNSPTOC1 ratio I2/I1	0.00...999.99 %	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifANAngVN1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle Uo - Io	Angle residual voltage - residual current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifNAngVN1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle Uo - Io	Angle residual voltage - residual current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAAAngVBC1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U23 - IL1	Angle phase B to phase C voltage - phase A current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAAngBC1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U23 - IL1	Angle phase B to phase C voltage - phase A current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifABAngVCA1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U31 - IL2	Angle phase C to phase A voltage - phase B current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifBAngCA1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U31 - IL2	Angle phase C to phase A voltage - phase B current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifACAngVAB1.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U12 - IL3	Angle phase A to phase B voltage - phase C current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifCAngAB1.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U12 - IL3	Angle phase A to phase B voltage - phase C current	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifANAngVN2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle UoB - IoB	Angle residual voltage - residual current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifNAngVN2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle UoB - IoB	Angle residual voltage - residual current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAAAngVBC2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U23B - IL1B	Angle phase B to phase C voltage - phase A current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifAAngBC2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U23B - IL1B	Angle phase B to phase C voltage - phase A current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifABAngVCA2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U31B - IL2B	Angle phase C to phase A voltage - phase B current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifBAngCA2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U31B - IL2B	Angle phase C to phase A voltage - phase B current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifACAngVAB2.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Angle U12B - IL3B	Angle phase A to phase B voltage - phase C current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.DifCAngAB2.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Angle U12B - IL3B	Angle phase A to phase B voltage - phase C current (b)	-180.00...180.00 deg	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.HzRteChg.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Frequency gradient	Frequency gradient	-10.00...10.00 Hz/s	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.CondNeut.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Conductance Yo	Conductance Yo	-1000.00...1000.00 mS	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.SusNeut.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Susceptance Yo	Susceptance Yo	-1000.00...1000.00 mS	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPLoopRis.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Fault loop Ris	Resistance of fault loop, PHDSTPDIS1	-1000.00...1000.00 ohm	Monitoring\Recorded data\Fault record	

FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPLoopReact.mag.f	MV	FLOAT32	MX	ED2,B		MeasReg	P	MB,DN,I3	Fault loop React	Reactance of fault loop, PHDSTPDIS1	-1000.00...1000.00 ohm	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.PPLoopReac.mag.f	MV	FLOAT32	MX	ED1		MeasReg	P	MB,DN,I3	Fault loop React	Reactance of fault loop, PHDSTPDIS1	-1000.00...1000.00 ohm	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	MON	LD0.FLTRFRC1.CBClrTm.mag.f	MV	FLOAT32	MX	B		MeasReg	P	MB,DN,I3	Breaker clear time	Breaker clear time	0.000...3.000 s	Monitoring\Recorded data\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	CFG	LD0.FLTRFRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	CFG	LD0.FLTRFRC1.TrgSet.setVal	ENG	Enum	SP	B	0				Trig mode	Triggering mode	0=From all faults; 1=From operate; 2=From only start	Configuration\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	CFG	LD0.FLTRFRC1.AMeasMod.setVal	ENG	Enum	SP	A	2				A measurement mode	Selects used measurement mode phase currents and residual current	1=RMS; 2=DFT; 3=Peak-to-Peak	Configuration\Fault record	
FLTRFRC1	FaultRec1	FaultRec1	VER	LD0.FLTRFRC1.NamPlt.swRev	LPL	VisString255 (20)	DC		H1					(Name plate)			

SPCGAPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input of control point 1		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input of control point 2		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input of control point 3		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input of control point 4		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input of control point 5		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input of control point 6		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input of control point 7		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input of control point 8		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind9.stVal	SPS	BOOLEAN	ST	B	0				IN9	Input of control point 9		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind10.stVal	SPS	BOOLEAN	ST	B	0				IN10	Input of control point 10		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind11.stVal	SPS	BOOLEAN	ST	B	0				IN11	Input of control point 11		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	

SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind12.stVal	SPS	BOOLEAN	ST	B	0				IN12	Input of control point 12		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind13.stVal	SPS	BOOLEAN	ST	B	0				IN13	Input of control point 13		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind14.stVal	SPS	BOOLEAN	ST	B	0				IN14	Input of control point 14		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind15.stVal	SPS	BOOLEAN	ST	B	0				IN15	Input of control point 15		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	INP	LD0.SPCGAPC1.Ind16.stVal	SPS	BOOLEAN	ST	B	0				IN16	Input of control point 16		Monitoring\I/O status\Generic logic\SPCGAPC1\Inputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO1.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O1	Output 1 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO2.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O2	Output 2 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO3.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O3	Output 3 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO4.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O4	Output 4 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO5.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O5	Output 5 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO6.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O6	Output 6 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO7.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O7	Output 7 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO8.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O8	Output 8 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO9.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O9	Output 9 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO10.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O10	Output 10 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO11.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O11	Output 11 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO12.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O12	Output 12 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO13.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O13	Output 13 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO14.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O14	Output 14 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO15.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O15	Output 15 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	OUT	LD0.SPCGAPC1.SPCSO16.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O16	Output 16 status		Monitoring\I/O status\Generic logic\SPCGAPC1\Outputs	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 1	Trig output 1		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 2	Trig output 2		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 3	Trig output 3		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 4	Trig output 4		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 5	Trig output 5		Control\SPCGAPC1	

SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 6	Trig output 6		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 7	Trig output 7		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 8	Trig output 8		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO9.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 9	Trig output 9		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO10.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 10	Trig output 10		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO11.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 11	Trig output 11		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO12.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 12	Trig output 12		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO13.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 13	Trig output 13		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO14.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 14	Trig output 14		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO15.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 15	Trig output 15		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CTR	LD0.SPCGAPC1.SPCSO16.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I1	TRIG 16	Trig output 16		Control\SPCGAPC1	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO1.pulseConfig.cmdQual	SPC	Enum	CF	B,I	0				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 1	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO1.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 1	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO1.dU	SPC	Unicode255	DC	ED2,B	OLATCC1.RAISE_LOCAL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 1	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO1.d	SPC	VisString255 (64)	DC		OLATCC1.RAISE_LOCAL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 1	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO2.pulseConfig.cmdQual	SPC	Enum	CF	B,I	0				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 2	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO2.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 2	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO2.dU	SPC	Unicode255	DC	ED2,B	OLATCC1.LOWER_LOCAL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 2	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO2.d	SPC	VisString255 (64)	DC		OLATCC1.LOWER_LOCAL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 2	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO3.pulseConfig.cmdQual	SPC	Enum	CF	B,I	1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 3	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO3.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 3	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO3.dU	SPC	Unicode255	DC	ED2,B	OLATCC1.PARALLEL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 3	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO3.d	SPC	VisString255 (64)	DC		OLATCC1.PARALLEL				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 3	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO4.pulseConfig.cmdQual	SPC	Enum	CF	B,I	1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 4	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO4.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 4	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO4.dU	SPC	Unicode255	DC	ED2,B	OLATCC1.AUTO				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 4	

SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO4.d	SPC	VisString255 (64)	DC		OLATCC1.AUTO				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 4	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO5.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 5	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO5.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 5	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO5.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 5				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 5	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO5.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 5				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 5	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO6.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 6	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO6.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 6	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO6.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 6				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 6	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO6.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 6				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 6	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO7.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 7	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO7.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 7	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO7.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 7				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 7	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO7.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 7				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 7	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO8.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 8	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO8.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 8	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO8.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 8				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 8	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO8.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 8				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 8	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO9.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 9	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO9.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 9	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO9.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 9				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 9	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO9.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 9				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 9	

SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO10.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 10	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO10.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 10	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO10.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 10				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 10	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO10.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 10				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 10	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO11.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 11	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO11.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 11	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO11.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 11				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 11	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO11.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 11				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 11	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO12.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 12	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO12.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 12	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO12.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 12				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 12	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO12.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 12				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 12	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO13.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 13	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO13.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 13	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO13.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 13				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 13	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO13.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 13				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 13	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO14.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 14	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO14.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 14	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO14.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 14				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 14	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO14.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 14				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 14	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO15.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 15	

SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO15.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 15	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO15.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 15				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 15	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO15.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 15				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 15	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO16.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC1\Output 16	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO16.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC1\Output 16	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO16.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC1 Output 16				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 16	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.SPCSO16.d	SPC	VisString255 (64)	DC		SPCGAPC1 Output 16				Description	Generic control point description		Configuration\Generic logic\SPCGAPC1\Output 16	
SPCGAPC1	SPC(1)	SPC(1)	CFG	LD0.SPCGAPC1.LocRemRst.setVal	SPG	BOOLEAN	SP	B	1				Loc Rem restriction	Local remote switch restriction		Configuration\Generic logic\SPCGAPC1\General	
SPCGAPC1	SPC(1)	SPC(1)	VER	LD0.SPCGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

SPCGAPC2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind1.stVal	SPS	BOOLEAN	ST	B	0				IN1	Input of control point 1		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind2.stVal	SPS	BOOLEAN	ST	B	0				IN2	Input of control point 2		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind3.stVal	SPS	BOOLEAN	ST	B	0				IN3	Input of control point 3		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind4.stVal	SPS	BOOLEAN	ST	B	0				IN4	Input of control point 4		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind5.stVal	SPS	BOOLEAN	ST	B	0				IN5	Input of control point 5		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind6.stVal	SPS	BOOLEAN	ST	B	0				IN6	Input of control point 6		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind7.stVal	SPS	BOOLEAN	ST	B	0				IN7	Input of control point 7		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind8.stVal	SPS	BOOLEAN	ST	B	0				IN8	Input of control point 8		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind9.stVal	SPS	BOOLEAN	ST	B	0				IN9	Input of control point 9		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind10.stVal	SPS	BOOLEAN	ST	B	0				IN10	Input of control point 10		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	

SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind11.stVal	SPS	BOOLEAN	ST	B	0				IN11	Input of control point 11		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind12.stVal	SPS	BOOLEAN	ST	B	0				IN12	Input of control point 12		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind13.stVal	SPS	BOOLEAN	ST	B	0				IN13	Input of control point 13		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind14.stVal	SPS	BOOLEAN	ST	B	0				IN14	Input of control point 14		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind15.stVal	SPS	BOOLEAN	ST	B	0				IN15	Input of control point 15		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	INP	LD0.SPCGAPC2.Ind16.stVal	SPS	BOOLEAN	ST	B	0				IN16	Input of control point 16		Monitoring\I/O status\Generic logic\SPCGAPC2\Inputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO1.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O1	Output 1 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO2.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O2	Output 2 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO3.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O3	Output 3 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO4.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O4	Output 4 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO5.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O5	Output 5 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO6.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O6	Output 6 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO7.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O7	Output 7 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO8.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O8	Output 8 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO9.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O9	Output 9 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO10.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O10	Output 10 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO11.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O11	Output 11 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO12.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O12	Output 12 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO13.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O13	Output 13 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO14.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O14	Output 14 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO15.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O15	Output 15 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	OUT	LD0.SPCGAPC2.SPCSO16.stVal	SPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	O16	Output 16 status		Monitoring\I/O status\Generic logic\SPCGAPC2\Outputs	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 1	Trig output 1		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 2	Trig output 2		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 3	Trig output 3		Control\SPCGAPC2	

SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 4	Trig output 4		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO5.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 5	Trig output 5		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO6.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 6	Trig output 6		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO7.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 7	Trig output 7		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO8.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 8	Trig output 8		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO9.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 9	Trig output 9		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO10.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 10	Trig output 10		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO11.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 11	Trig output 11		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO12.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 12	Trig output 12		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO13.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 13	Trig output 13		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO14.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 14	Trig output 14		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO15.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 15	Trig output 15		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CTR	LD0.SPCGAPC2.SPCSO16.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	TRIG 16	Trig output 16		Control\SPCGAPC2	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO1.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 1	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO1.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 1	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO1.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 1				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 1	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO1.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 1				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 1	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO2.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 2	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO2.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 2	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO2.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 2				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 2	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO2.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 2				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 2	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO3.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 3	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO3.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 3	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO3.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 3				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 3	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO3.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 3				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 3	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO4.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 4	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO4.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 4	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO4.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 4				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 4	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO4.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 4				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 4	

SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO5.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 5	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO5.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 5	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO5.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 5				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 5	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO5.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 5				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 5	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO6.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 6	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO6.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 6	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO6.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 6				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 6	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO6.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 6				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 6	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO7.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 7	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO7.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 7	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO7.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 7				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 7	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO7.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 7				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 7	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO8.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 8	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO8.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 8	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO8.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 8				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 8	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO8.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 8				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 8	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO9.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 9	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO9.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 9	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO9.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 9				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 9	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO9.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 9				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 9	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO10.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 10	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO10.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 10	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO10.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 10				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 10	

SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO10.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 10				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 10	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO11.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 11	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO11.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 11	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO11.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 11				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 11	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO11.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 11				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 11	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO12.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 12	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO12.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 12	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO12.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 12				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 12	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO12.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 12				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 12	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO13.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 13	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO13.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 13	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO13.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 13				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 13	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO13.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 13				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 13	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO14.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 14	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO14.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 14	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO14.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 14				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 14	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO14.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 14				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 14	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO15.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 15	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO15.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 15	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO15.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 15				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 15	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO15.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 15				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 15	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO16.pulseConfig.cmdQual	SPC	Enum	CF	B,I	-1				Operation mode	Operation mode for generic control point	0=Pulsed; 1=Toggle/Persistent; -1=Off	Configuration\Generic logic\SPCGAPC2\Output 16	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO16.pulseConfig.onDur	SPC	INT32U	CF	B,I	1000				Pulse length	Pulse length for pulsed operation mode	10...3600000 ms	Configuration\Generic logic\SPCGAPC2\Output 16	

SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO16.dU	SPC	Unicode255	DC	ED2,B	SPCGAPC2 Output 16				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 16	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.SPCSO16.d	SPC	VisString255 (64)	DC		SPCGAPC2 Output 16				Description	Generic control point description		Configuration\Generic logic\SPCGAPC2\Output 16	
SPCGAPC2	SPC(2)	SPC(2)	CFG	LD0.SPCGAPC2.LocRemRst.setVal	SPG	BOOLEAN	SP	B	1				Loc Rem restriction	Local remote switch restriction		Configuration\Generic logic\SPCGAPC2\General	
SPCGAPC2	SPC(2)	SPC(2)	VER	LD0.SPCGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

MAPGAPC1: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC1	MAP(1)	MAP(1)	INP	LD0.MAPGAPC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC1\Inputs	
MAPGAPC1	MAP(1)	MAP(1)	INP	LD0.MAPGAPC1.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC1\Inputs	
MAPGAPC1	MAP(1)	MAP(1)	INP	LD0.MAPGAPC1.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC1\Inputs	
MAPGAPC1	MAP(1)	MAP(1)	OUT	LD0.MAPGAPC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC1\Outputs	
MAPGAPC1	MAP(1)	MAP(1)	OUT	LD0.MAPGAPC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC1\Outputs	
MAPGAPC1	MAP(1)	MAP(1)	MON	LD0.MAPGAPC1.Beh.stVal	ENS	Enum	ST	B					MAPGAPC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC1	MAP(1)	MAP(1)	MON	LD0.MAPGAPC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC1\Monitored data	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	SET	LD0.MAPGAPC1.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC1	
MAPGAPC1	MAP(1)	MAP(1)	TES	LD0.MAPGAPC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC1	MAP(1)	MAP(1)	VER	LD0.MAPGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC2: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC2	MAP(2)	MAP(2)	INP	LD0.MAPGAPC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC2\Inputs	
MAPGAPC2	MAP(2)	MAP(2)	INP	LD0.MAPGAPC2.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC2\Inputs	
MAPGAPC2	MAP(2)	MAP(2)	INP	LD0.MAPGAPC2.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC2\Inputs	
MAPGAPC2	MAP(2)	MAP(2)	OUT	LD0.MAPGAPC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC2\Outputs	
MAPGAPC2	MAP(2)	MAP(2)	OUT	LD0.MAPGAPC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC2\Outputs	
MAPGAPC2	MAP(2)	MAP(2)	MON	LD0.MAPGAPC2.Beh.stVal	ENS	Enum	ST	B					MAPGAPC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC2	MAP(2)	MAP(2)	MON	LD0.MAPGAPC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC2\Monitored data	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	SET	LD0.MAPGAPC2.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC2	
MAPGAPC2	MAP(2)	MAP(2)	TES	LD0.MAPGAPC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC2	MAP(2)	MAP(2)	VER	LD0.MAPGAPC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC3: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC3	MAP(3)	MAP(3)	INP	LD0.MAPGAPC3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC3\Inputs	

MAPGAPC3	MAP(3)	MAP(3)	INP	LD0.MAPGAPC3.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC3\Inputs	
MAPGAPC3	MAP(3)	MAP(3)	INP	LD0.MAPGAPC3.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC3\Inputs	
MAPGAPC3	MAP(3)	MAP(3)	OUT	LD0.MAPGAPC3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC3\Outputs	
MAPGAPC3	MAP(3)	MAP(3)	OUT	LD0.MAPGAPC3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC3\Outputs	
MAPGAPC3	MAP(3)	MAP(3)	MON	LD0.MAPGAPC3.Beh.stVal	ENS	Enum	ST	B					MAPGAPC3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC3	MAP(3)	MAP(3)	MON	LD0.MAPGAPC3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC3\Monitored data	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	SET	LD0.MAPGAPC3.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC3	
MAPGAPC3	MAP(3)	MAP(3)	TES	LD0.MAPGAPC3.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC3	MAP(3)	MAP(3)	VER	LD0.MAPGAPC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC4: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC4	MAP(4)	MAP(4)	INP	LD0.MAPGAPC4.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC4\Inputs	
MAPGAPC4	MAP(4)	MAP(4)	INP	LD0.MAPGAPC4.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC4\Inputs	
MAPGAPC4	MAP(4)	MAP(4)	INP	LD0.MAPGAPC4.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC4\Inputs	
MAPGAPC4	MAP(4)	MAP(4)	OUT	LD0.MAPGAPC4.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC4\Outputs	
MAPGAPC4	MAP(4)	MAP(4)	OUT	LD0.MAPGAPC4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC4\Outputs	

MAPGAPC4	MAP(4)	MAP(4)	MON	LD0.MAPGAPC4.Beh.stVal	ENS	Enum	ST	B					MAPGAPC4	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC4	MAP(4)	MAP(4)	MON	LD0.MAPGAPC4.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC4\Monitored data	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	SET	LD0.MAPGAPC4.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC4	
MAPGAPC4	MAP(4)	MAP(4)	TES	LD0.MAPGAPC4.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC4	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC4	MAP(4)	MAP(4)	VER	LD0.MAPGAPC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC5: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC5	MAP(5)	MAP(5)	INP	LD0.MAPGAPC5.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC5\Inputs	
MAPGAPC5	MAP(5)	MAP(5)	INP	LD0.MAPGAPC5.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC5\Inputs	
MAPGAPC5	MAP(5)	MAP(5)	INP	LD0.MAPGAPC5.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC5\Inputs	
MAPGAPC5	MAP(5)	MAP(5)	OUT	LD0.MAPGAPC5.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC5\Outputs	
MAPGAPC5	MAP(5)	MAP(5)	OUT	LD0.MAPGAPC5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC5\Outputs	
MAPGAPC5	MAP(5)	MAP(5)	MON	LD0.MAPGAPC5.Beh.stVal	ENS	Enum	ST	B					MAPGAPC5	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC5	MAP(5)	MAP(5)	MON	LD0.MAPGAPC5.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC5\Monitored data	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC5	

MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	SET	LD0.MAPGAPC5.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC5	
MAPGAPC5	MAP(5)	MAP(5)	TES	LD0.MAPGAPC5.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC5	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC5	MAP(5)	MAP(5)	VER	LD0.MAPGAPC5.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC6: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC6	MAP(6)	MAP(6)	INP	LD0.MAPGAPC6.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC6\Inputs	
MAPGAPC6	MAP(6)	MAP(6)	INP	LD0.MAPGAPC6.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC6\Inputs	
MAPGAPC6	MAP(6)	MAP(6)	INP	LD0.MAPGAPC6.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC6\Inputs	
MAPGAPC6	MAP(6)	MAP(6)	OUT	LD0.MAPGAPC6.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC6\Outputs	
MAPGAPC6	MAP(6)	MAP(6)	OUT	LD0.MAPGAPC6.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC6\Outputs	
MAPGAPC6	MAP(6)	MAP(6)	MON	LD0.MAPGAPC6.Beh.stVal	ENS	Enum	ST	B					MAPGAPC6	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC6	MAP(6)	MAP(6)	MON	LD0.MAPGAPC6.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC6\Monitored data	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC6	

MAPGAPC6	MAP(6)	MAP(6)	SET	LD0.MAPGAPC6.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC6	
MAPGAPC6	MAP(6)	MAP(6)	TES	LD0.MAPGAPC6.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC6	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC6	MAP(6)	MAP(6)	VER	LD0.MAPGAPC6.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC7: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC7	MAP(7)	MAP(7)	INP	LD0.MAPGAPC7.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC7\Inputs	
MAPGAPC7	MAP(7)	MAP(7)	INP	LD0.MAPGAPC7.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC7\Inputs	
MAPGAPC7	MAP(7)	MAP(7)	INP	LD0.MAPGAPC7.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC7\Inputs	
MAPGAPC7	MAP(7)	MAP(7)	OUT	LD0.MAPGAPC7.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC7\Outputs	
MAPGAPC7	MAP(7)	MAP(7)	OUT	LD0.MAPGAPC7.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC7\Outputs	
MAPGAPC7	MAP(7)	MAP(7)	MON	LD0.MAPGAPC7.Beh.stVal	ENS	Enum	ST	B					MAPGAPC7	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC7	MAP(7)	MAP(7)	MON	LD0.MAPGAPC7.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC7\Monitored data	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	SET	LD0.MAPGAPC7.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC7	
MAPGAPC7	MAP(7)	MAP(7)	TES	LD0.MAPGAPC7.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC7	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC7	MAP(7)	MAP(7)	VER	LD0.MAPGAPC7.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC8: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC8	MAP(8)	MAP(8)	INP	LD0.MAPGAPC8.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC8\Inputs	
MAPGAPC8	MAP(8)	MAP(8)	INP	LD0.MAPGAPC8.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC8\Inputs	
MAPGAPC8	MAP(8)	MAP(8)	INP	LD0.MAPGAPC8.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC8\Inputs	
MAPGAPC8	MAP(8)	MAP(8)	OUT	LD0.MAPGAPC8.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC8\Outputs	
MAPGAPC8	MAP(8)	MAP(8)	OUT	LD0.MAPGAPC8.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC8\Outputs	
MAPGAPC8	MAP(8)	MAP(8)	MON	LD0.MAPGAPC8.Beh.stVal	ENS	Enum	ST	B					MAPGAPC8	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC8	MAP(8)	MAP(8)	MON	LD0.MAPGAPC8.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC8\Monitored data	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	SET	LD0.MAPGAPC8.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC8	
MAPGAPC8	MAP(8)	MAP(8)	TES	LD0.MAPGAPC8.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC8	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC8	MAP(8)	MAP(8)	VER	LD0.MAPGAPC8.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC9: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC9	MAP(9)	MAP(9)	INP	LD0.MAPGAPC9.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC9\Inputs	

MAPGAPC9	MAP(9)	MAP(9)	INP	LD0.MAPGAPC9.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC9\Inputs	
MAPGAPC9	MAP(9)	MAP(9)	INP	LD0.MAPGAPC9.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC9\Inputs	
MAPGAPC9	MAP(9)	MAP(9)	OUT	LD0.MAPGAPC9.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC9\Outputs	
MAPGAPC9	MAP(9)	MAP(9)	OUT	LD0.MAPGAPC9.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC9\Outputs	
MAPGAPC9	MAP(9)	MAP(9)	MON	LD0.MAPGAPC9.Beh.stVal	ENS	Enum	ST	B					MAPGAPC9	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC9	MAP(9)	MAP(9)	MON	LD0.MAPGAPC9.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC9\Monitored data	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	SET	LD0.MAPGAPC9.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC9	
MAPGAPC9	MAP(9)	MAP(9)	TES	LD0.MAPGAPC9.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC9	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC9	MAP(9)	MAP(9)	VER	LD0.MAPGAPC9.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC10: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC10	MAP(10)	MAP(10)	INP	LD0.MAPGAPC10.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC10\Inputs	
MAPGAPC10	MAP(10)	MAP(10)	INP	LD0.MAPGAPC10.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC10\Inputs	
MAPGAPC10	MAP(10)	MAP(10)	INP	LD0.MAPGAPC10.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC10\Inputs	
MAPGAPC10	MAP(10)	MAP(10)	OUT	LD0.MAPGAPC10.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC10\Outputs	
MAPGAPC10	MAP(10)	MAP(10)	OUT	LD0.MAPGAPC10.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC10\Outputs	

MAPGAPC10	MAP(10)	MAP(10)	MON	LD0.MAPGAPC10.Beh.stVal	ENS	Enum	ST	B					MAPGAPC10	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC10	MAP(10)	MAP(10)	MON	LD0.MAPGAPC10.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC10\Monitored data	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	SET	LD0.MAPGAPC10.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC10	
MAPGAPC10	MAP(10)	MAP(10)	TES	LD0.MAPGAPC10.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC10	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC10	MAP(10)	MAP(10)	VER	LD0.MAPGAPC10.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC11: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC11	MAP(11)	MAP(11)	INP	LD0.MAPGAPC11.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC11\Inputs	
MAPGAPC11	MAP(11)	MAP(11)	INP	LD0.MAPGAPC11.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC11\Inputs	
MAPGAPC11	MAP(11)	MAP(11)	INP	LD0.MAPGAPC11.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC11\Inputs	
MAPGAPC11	MAP(11)	MAP(11)	OUT	LD0.MAPGAPC11.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC11\Outputs	
MAPGAPC11	MAP(11)	MAP(11)	OUT	LD0.MAPGAPC11.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC11\Outputs	
MAPGAPC11	MAP(11)	MAP(11)	MON	LD0.MAPGAPC11.Beh.stVal	ENS	Enum	ST	B					MAPGAPC11	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC11	MAP(11)	MAP(11)	MON	LD0.MAPGAPC11.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC11\Monitored data	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC11	

MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	SET	LD0.MAPGAPC11.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC11	
MAPGAPC11	MAP(11)	MAP(11)	TES	LD0.MAPGAPC11.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC11	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC11	MAP(11)	MAP(11)	VER	LD0.MAPGAPC11.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC12: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC12	MAP(12)	MAP(12)	INP	LD0.MAPGAPC12.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC12\Inputs	
MAPGAPC12	MAP(12)	MAP(12)	INP	LD0.MAPGAPC12.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC12\Inputs	
MAPGAPC12	MAP(12)	MAP(12)	INP	LD0.MAPGAPC12.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC12\Inputs	
MAPGAPC12	MAP(12)	MAP(12)	OUT	LD0.MAPGAPC12.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC12\Outputs	
MAPGAPC12	MAP(12)	MAP(12)	OUT	LD0.MAPGAPC12.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC12\Outputs	
MAPGAPC12	MAP(12)	MAP(12)	MON	LD0.MAPGAPC12.Beh.stVal	ENS	Enum	ST	B					MAPGAPC12	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC12	MAP(12)	MAP(12)	MON	LD0.MAPGAPC12.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC12\Monitored data	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC12	

MAPGAPC12	MAP(12)	MAP(12)	SET	LD0.MAPGAPC12.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC12	
MAPGAPC12	MAP(12)	MAP(12)	TES	LD0.MAPGAPC12.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC12	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC12	MAP(12)	MAP(12)	VER	LD0.MAPGAPC12.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC13: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC13	MAP(13)	MAP(13)	INP	LD0.MAPGAPC13.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC13\Inputs	
MAPGAPC13	MAP(13)	MAP(13)	INP	LD0.MAPGAPC13.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC13\Inputs	
MAPGAPC13	MAP(13)	MAP(13)	INP	LD0.MAPGAPC13.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC13\Inputs	
MAPGAPC13	MAP(13)	MAP(13)	OUT	LD0.MAPGAPC13.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC13\Outputs	
MAPGAPC13	MAP(13)	MAP(13)	OUT	LD0.MAPGAPC13.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC13\Outputs	
MAPGAPC13	MAP(13)	MAP(13)	MON	LD0.MAPGAPC13.Beh.stVal	ENS	Enum	ST	B					MAPGAPC13	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC13	MAP(13)	MAP(13)	MON	LD0.MAPGAPC13.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC13\Monitored data	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	SET	LD0.MAPGAPC13.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC13	
MAPGAPC13	MAP(13)	MAP(13)	TES	LD0.MAPGAPC13.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC13	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC13	MAP(13)	MAP(13)	VER	LD0.MAPGAPC13.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC14: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC14	MAP(14)	MAP(14)	INP	LD0.MAPGAPC14.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC14\Inputs	
MAPGAPC14	MAP(14)	MAP(14)	INP	LD0.MAPGAPC14.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC14\Inputs	
MAPGAPC14	MAP(14)	MAP(14)	INP	LD0.MAPGAPC14.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC14\Inputs	
MAPGAPC14	MAP(14)	MAP(14)	OUT	LD0.MAPGAPC14.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC14\Outputs	
MAPGAPC14	MAP(14)	MAP(14)	OUT	LD0.MAPGAPC14.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC14\Outputs	
MAPGAPC14	MAP(14)	MAP(14)	MON	LD0.MAPGAPC14.Beh.stVal	ENS	Enum	ST	B					MAPGAPC14	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC14	MAP(14)	MAP(14)	MON	LD0.MAPGAPC14.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC14\Monitored data	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	SET	LD0.MAPGAPC14.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC14	
MAPGAPC14	MAP(14)	MAP(14)	TES	LD0.MAPGAPC14.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC14	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC14	MAP(14)	MAP(14)	VER	LD0.MAPGAPC14.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC15: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC15	MAP(15)	MAP(15)	INP	LD0.MAPGAPC15.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC15\Inputs	

MAPGAPC15	MAP(15)	MAP(15)	INP	LD0.MAPGAPC15.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC15\Inputs	
MAPGAPC15	MAP(15)	MAP(15)	INP	LD0.MAPGAPC15.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC15\Inputs	
MAPGAPC15	MAP(15)	MAP(15)	OUT	LD0.MAPGAPC15.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC15\Outputs	
MAPGAPC15	MAP(15)	MAP(15)	OUT	LD0.MAPGAPC15.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC15\Outputs	
MAPGAPC15	MAP(15)	MAP(15)	MON	LD0.MAPGAPC15.Beh.stVal	ENS	Enum	ST	B					MAPGAPC15	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC15	MAP(15)	MAP(15)	MON	LD0.MAPGAPC15.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC15\Monitored data	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	SET	LD0.MAPGAPC15.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC15	
MAPGAPC15	MAP(15)	MAP(15)	TES	LD0.MAPGAPC15.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC15	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC15	MAP(15)	MAP(15)	VER	LD0.MAPGAPC15.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC16: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC16	MAP(16)	MAP(16)	INP	LD0.MAPGAPC16.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC16\Inputs	
MAPGAPC16	MAP(16)	MAP(16)	INP	LD0.MAPGAPC16.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC16\Inputs	
MAPGAPC16	MAP(16)	MAP(16)	INP	LD0.MAPGAPC16.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC16\Inputs	
MAPGAPC16	MAP(16)	MAP(16)	OUT	LD0.MAPGAPC16.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC16\Outputs	
MAPGAPC16	MAP(16)	MAP(16)	OUT	LD0.MAPGAPC16.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC16\Outputs	

MAPGAPC16	MAP(16)	MAP(16)	MON	LD0.MAPGAPC16.Beh.stVal	ENS	Enum	ST	B					MAPGAPC16	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC16	MAP(16)	MAP(16)	MON	LD0.MAPGAPC16.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC16\Monitored data	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	SET	LD0.MAPGAPC16.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC16	
MAPGAPC16	MAP(16)	MAP(16)	TES	LD0.MAPGAPC16.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC16	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC16	MAP(16)	MAP(16)	VER	LD0.MAPGAPC16.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC17: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC17	MAP(17)	MAP(17)	INP	LD0.MAPGAPC17.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC17\Inputs	
MAPGAPC17	MAP(17)	MAP(17)	INP	LD0.MAPGAPC17.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC17\Inputs	
MAPGAPC17	MAP(17)	MAP(17)	INP	LD0.MAPGAPC17.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC17\Inputs	
MAPGAPC17	MAP(17)	MAP(17)	OUT	LD0.MAPGAPC17.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC17\Outputs	
MAPGAPC17	MAP(17)	MAP(17)	OUT	LD0.MAPGAPC17.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC17\Outputs	
MAPGAPC17	MAP(17)	MAP(17)	MON	LD0.MAPGAPC17.Beh.stVal	ENS	Enum	ST	B					MAPGAPC17	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC17	MAP(17)	MAP(17)	MON	LD0.MAPGAPC17.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC17\Monitored data	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC17	

MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	SET	LD0.MAPGAPC17.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC17	
MAPGAPC17	MAP(17)	MAP(17)	TES	LD0.MAPGAPC17.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC17	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC17	MAP(17)	MAP(17)	VER	LD0.MAPGAPC17.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MAPGAPC18: Multipurpose analogue protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MAPGAPC18	MAP(18)	MAP(18)	INP	LD0.MAPGAPC18.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\MAPGAPC18\Inputs	
MAPGAPC18	MAP(18)	MAP(18)	INP	LD0.MAPGAPC18.AnIn.mag.f	MV	FLOAT32	MX	B	0.0				AI_VALUE	Analogue input value	-10000.0...10000.0	Monitoring\I/O status\Other protection\MAPGAPC18\Inputs	
MAPGAPC18	MAP(18)	MAP(18)	INP	LD0.MAPGAPC18.InEnaAdd.stVal	SPS	BOOLEAN	ST	B	0				ENA_ADD	Enable start added		Monitoring\I/O status\Other protection\MAPGAPC18\Inputs	
MAPGAPC18	MAP(18)	MAP(18)	OUT	LD0.MAPGAPC18.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Other protection\MAPGAPC18\Outputs	
MAPGAPC18	MAP(18)	MAP(18)	OUT	LD0.MAPGAPC18.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\MAPGAPC18\Outputs	
MAPGAPC18	MAP(18)	MAP(18)	MON	LD0.MAPGAPC18.Beh.stVal	ENS	Enum	ST	B					MAPGAPC18	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MAPGAPC18	MAP(18)	MAP(18)	MON	LD0.MAPGAPC18.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Other protection\MAPGAPC18\Monitored data	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value	Start value	-10000.0...10000.0	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.OpDlTmms.setVal	ING	INT32	SG	B	0				Operate delay time	Operate delay time	0...200000 ms	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.OpModCom.setVal	ENG	Enum	SP	B,I	1				Operation mode	Operation mode	1=Over; 2=Under	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.HysAbs.setMag.f	ASG	FLOAT32	SP	A,I	0.10				Absolute hysteresis	Absolute hysteresis for operation	0.01...100.00	Settings\Settings\Other protection\MAPGAPC18	

MAPGAPC18	MAP(18)	MAP(18)	SET	LD0.MAPGAPC18.StrValAdd.setMag.f	ASG	FLOAT32	SG	B	0.0				Start value Add	Start value Add	-100.0...100.0	Settings\Settings\Other protection\MAPGAPC18	
MAPGAPC18	MAP(18)	MAP(18)	TES	LD0.MAPGAPC18.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MAPGAPC18	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
MAPGAPC18	MAP(18)	MAP(18)	VER	LD0.MAPGAPC18.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

CCSPVC1: Current circuit supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CCSPVC1	MCS 3I(1)	MCS 3I(1)	INP	LD0.CCSPVC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Condition monitoring\CCSPVC1\Inputs	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	OUT	LD0.CCSPVC1.FailACirc.general	ACT	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	FAIL	Fail output		Monitoring\I/O status\Condition monitoring\CCSPVC1\Outputs	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	OUT	LD0.CCSPVC1.SigFailAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\CCSPVC1\Outputs	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	MON	LD0.CCSPVC1.Beh.stVal	ENS	Enum	ST	B					CCSPVC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	MON	LD0.CCSPVC1.DifAClc.res.cVal.mag.f	WYE	FLOAT32	MX	B					IDIFF	Differential current	0.00...40.00 xIn	Monitoring\I/O status\Condition monitoring\CCSPVC1\Monitored data	IL1TCTR1
CCSPVC1	MCS 3I(1)	MCS 3I(1)	CFG	LD0.CCSPVC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On / Off	1=on; 5=off	Configuration\Condition monitoring\CCSPVC1	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	CFG	LD0.CCSPVC1.StrVal.setMag.f	ASG	FLOAT32	SP	B	0.05				Start value	Minimum operate current differential level	0.05...0.20 xIn	Configuration\Condition monitoring\CCSPVC1	IL1TCTR1
CCSPVC1	MCS 3I(1)	MCS 3I(1)	CFG	LD0.CCSPVC1.MaxOpA.setMag.f	ASG	FLOAT32	SP	A	1.5				Max operate current	Block of the function at high phase current	1.00...5.00 xIn	Configuration\Condition monitoring\CCSPVC1	IL1TCTR1
CCSPVC1	MCS 3I(1)	MCS 3I(1)	TES	LD0.CCSPVC1.TestSpvn.Oper.ctlVal	ENC	Enum	CO	B	0				CCSPVC1	Test control for outputs	0=Reset; 5=Activate ALARM; 6=Deactive ALARM; 41=Activate FAIL; 42=Deactive FAIL	Tests\Function tests\Condition monitoring	
CCSPVC1	MCS 3I(1)	MCS 3I(1)	VER	LD0.CCSPVC1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

BSTGGIO1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind1.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_1	Send signal 1 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind2.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_2	Send signal 2 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind3.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_3	Send signal 3 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind4.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_4	Send signal 4 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	

BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind5.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_5	Send signal 5 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind6.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_6	Send signal 6 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind7.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_7	Send signal 7 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	INP	LD0.BSTGGIO1.Ind8.stVal	SPS	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	SEND_SIG_8	Send signal 8 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Inputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO1.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_1	Receive signal 1 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO2.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_2	Receive signal 2 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO3.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_3	Receive signal 3 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO4.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_4	Receive signal 4 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO5.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_5	Receive signal 5 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO6.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_6	Receive signal 6 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO7.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_7	Receive signal 7 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.SPCSO8.stVal	SPC	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	RECV_SIG_8	Receive signal 8 state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.Alm1.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	SEND_SIG_A	Binary signal transfer sending alarm state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	OUT	LD0.BSTGGIO1.Alm2.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	RECV_SIG_A	Binary signal transfer receive alarm state		Monitoring\I/O status\Differential prot\BSTGGIO1\Outputs	
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_1)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_2)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_3)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO4.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_4)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO5.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_5)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO6.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_6)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO7.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_7)			
BSTGGIO1	BST(1)	BST(1)	CTR	LD0.BSTGGIO1.SPCSO8.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(RECV_SIG_8)			
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms1.setVal	ING	INT32	SG	B	0				Pulse time 1	Minimum pulse time for received signal 1	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms2.setVal	ING	INT32	SG	B	0				Pulse time 2	Minimum pulse time for received signal 2	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms3.setVal	ING	INT32	SG	B	0				Pulse time 3	Minimum pulse time for received signal 3	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms4.setVal	ING	INT32	SG	B	0				Pulse time 4	Minimum pulse time for received signal 4	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms5.setVal	ING	INT32	SG	B	0				Pulse time 5	Minimum pulse time for received signal 6	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	

BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms6.setVal	ING	INT32	SG	B	0				Pulse time 6	Minimum pulse time for received signal 6	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms7.setVal	ING	INT32	SG	B	0				Pulse time 7	Minimum pulse time for received signal 7	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.PlsTmms8.setVal	ING	INT32	SG	B	0				Pulse time 8	Minimum pulse time for received signal 8	0...60000 ms	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.AlmMod.setVal	ENG	Enum	SP	B	1				Alarm mode	Selects the used alarm logic mode for activating SEND_SIG_A and RECV_SIG_A	1=Any of selected; 2=All of selected	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod1.setVal	ENG	Enum	SG	B	2				Signal 1 mode	Operation mode for signal 1	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod2.setVal	ENG	Enum	SG	B	2				Signal 2 mode	Operation mode for signal 2	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod3.setVal	ENG	Enum	SG	B	1				Signal 3 mode	Operation mode for signal 3	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod4.setVal	ENG	Enum	SG	B	1				Signal 4 mode	Operation mode for signal 4	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod5.setVal	ENG	Enum	SG	B	1				Signal 5 mode	Operation mode for signal 5	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod6.setVal	ENG	Enum	SG	B	1				Signal 6 mode	Operation mode for signal 6	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod7.setVal	ENG	Enum	SG	B	1				Signal 7 mode	Operation mode for signal 7	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	SET	LD0.BSTGGIO1.SigMod8.setVal	ENG	Enum	SG	B	1				Signal 8 mode	Operation mode for signal 8	1=In use; 2=In use, alarm sel.; 3=Not in use	Settings\Settings\Differential prot\BSTGGIO1	
BSTGGIO1	BST(1)	BST(1)	VER	LD0.BSTGGIO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LNPLDF1: Line differential protection with stabilized and inst. stages

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LNPLDF1	3dI>L(1)	87L(1)	INP	LD0.LNPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Signal for blocking the function		Monitoring\I/O status\Differential prot\LNPLDF1\Inputs	
LNPLDF1	3dI>L(1)	87L(1)	INP	LD0.LNLPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK_LS	Signal for blocking the stab. stage		Monitoring\I/O status\Differential prot\LNPLDF1\Inputs	
LNPLDF1	3dI>L(1)	87L(1)	INP	LD0.LNHPDIF1.InEnaMltHi.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT_HS	Enables the high stage multiplier		Monitoring\I/O status\Differential prot\LNPLDF1\Inputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNPTRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate, local or remote, stabilized or instantaneous stage	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNPTRC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start, local or remote	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	

LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNPTRC1.ProAct.stVal	SPS	BOOLEAN	ST	B					PRO_ACTIVE	Status of the protection, true when function is operative		Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.Str.general	ACD	BOOLEAN	ST	B					STR_LS_LOC	Start stabilized stage local	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_LS_LOC	Operate stabilized stage local	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.StrRem.general	ACD	BOOLEAN	ST	B					STR_LS_REM	Start stabilized stage remote	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.OpRem.general	ACT	BOOLEAN	ST	B					OPR_LS_REM	Operate stabilized stage remote	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.Blk2HRemSt.general	ACT	BOOLEAN	ST	B					BLKD2H_REM	Restraint due 2nd harmonics detected remote	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNLPDIF1.Blk2HLocSt.general	ACT	BOOLEAN	ST	B					BLKD2H_LOC	Restraint due 2nd harmonics detected local	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNHPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_HS_LOC	Operate instantaneous stage local	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	OUT	LD0.LNHPDIF1.OpRem.general	ACT	BOOLEAN	ST	B					OPR_HS_REM	Operate instantaneous stage remote	(A,B,C)	Monitoring\I/O status\Differential prot\LNPLDF1\Outputs	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNPTRC1.Beh.stVal	ENS	Enum	ST	B					LNPLDF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.DifAClc.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_A	Differential current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.DifAClc.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_B	Differential current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.DifAClc.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_C	Differential current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.RstA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_A	Stabilization current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.RstA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_B	Stabilization current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.RstA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_C	Stabilization current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.AngLocRemA.mag.f	MV	FLOAT32	MX	B					I_ANGL_DIFF_A	Current phase angle differential between local and remote, phase A	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	

LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.AngLocRemB.mag.f	MV	FLOAT32	MX	B					I_ANGL_DIFF_B	Current phase angle differential between local and remote, phase B	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.AngLocRemC.mag.f	MV	FLOAT32	MX	B					I_ANGL_DIFF_C	Current phase angle differential between local and remote, phase C	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNLPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ARem.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_REM_A	Remote phase A amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ARem.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_REM_B	Remote phase B amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ARem.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_REM_C	Remote phase C amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ALoc.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_LOC_A	Local phase A amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ALoc.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_LOC_B	Local phase B amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	MON	LD0.LNRMXU1.ALoc.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_LOC_C	Local phase C amplitude after correction	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\LNPLDF1\Monitored data	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation mode of the function	1=on; 4=test/blocked; 5=off	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	10				Low operate value	Basic setting for the stabilized stage start	10...200 %Ir	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.MinOpTmms.setVal	ING	INT32	SP	A	45				Minimum operate time	Minimum operate time for stabilized stage IDMT curves	45...60000 ms	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.RstMod.setVal	ENG	Enum	SP	B	1				Restraint mode	Selects what restraint modes are in use	1=None; 2=Harmonic2	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay time	Reset delay time for stabilized stage	0...60000 ms	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve for stabilized stage	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.OpDlTmms.setVal	ING	INT32	SG	B	45				Operate delay time	Operate delay time for stabilized stage	45...200000 ms	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IDMT curves	0.05...15.00	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.EndScn1.setMag.f	ASG	FLOAT32	SG	B	100				End section 1	Turn-point between the first and the second line of the operating characteristics	0...200 %Ir	Settings\Settings\Differential prot\LNPLDF1	

LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.SpeScn2.setMag.f	ASG	FLOAT32	SG	B	50				Slope section 2	Slope of the second line of the operating characteristics	10...50 %	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.EndScn2.setMag.f	ASG	FLOAT32	SG	B	500				End section 2	Turn-point between the second and the third line of the operating characteristics	200...2000 %Ir	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.SpeScn3.setMag.f	ASG	FLOAT32	SG	B	150				Slope section 3	Slope of the third line of the operating characteristics	10...200 %	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.CTConnTyp.setVal	ENG	Enum	SP	B	1				CT connection type	CT connection type. Determined by the directions of the connected current transformers.	1=Type 1; 2=Type 2	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.WndSel.setVal	ENG	Enum	SP	B	1				Winding selection	IED location respect to transformer, HV (Winding 1) side or LV (Winding 2) side	1=Not in use; 2=Winding 1; 3=Winding 2	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.Wnd1Typ.setVal	ENG	Enum	SP	B	1				Winding 1 type	Connection of the HV side windings	1=Y; 2=YN; 3=D; 4=Z; 5=ZN	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.Wnd2Typ.setVal	ENG	Enum	SP	B	1				Winding 2 type	Connection of the LV side windings	1=y; 2=yn; 3=d; 4=z; 5=zn	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.ClkNum.setVal	ENG	Enum	SP	B	0				Clock number	Setting the phase shift between HV and LV with clock number for connection group compensation (e.g. Dyn11 -> 11)	0=Clk Num 0; 1=Clk Num 1; 2=Clk Num 2; 4=Clk Num 4; 5=Clk Num 5; 6=Clk Num 6; 7=Clk Num 7; 8=Clk Num 8; 10=Clk Num 10; 11=Clk Num 11	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNLPDIF1.ZroAElm.setVal	ENG	Enum	SP	B	1				Zro A elimination	Elimination of the zero-sequence current	1=Not eliminated; 2=Winding 1; 3=Winding 2; 4=Winding 1 and 2	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNHPDIF1.HiSet.setMag.f	ASG	FLOAT32	SG	B	2000				High operate value	Instantaneous stage operate value	200...4000 %Ir	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNHPDIF1.HiSetMult.setMag.f	ASG	FLOAT32	SG	B	1.0				High Op value Mult	Multiplier for scaling the high stage operate value	0.5...1.0	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNPHAR1.PhStr.setMag.f	ASG	FLOAT32	SG	B	20				Start value 2.H	The ratio of the 2. harmonic component to fundamental component required for blocking	10...50 %	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	SET	LD0.LNRMXU1.CTRatCor.setMag.f	ASG	FLOAT32	SP	B	1.000				CT ratio correction	Local phase current transformer ratio correction	0.200...5.000	Settings\Settings\Differential prot\LNPLDF1	
LNPLDF1	3dI>L(1)	87L(1)	TES	LD0.LNLPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				LNPLDF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 27=Activate STR_LS_LOC; 28=Deactive STR_LS_LOC; 29=Activate STR_LS_REM; 30=Deactive STR_LS_REM; 31=Activate OPR_LS_LOC; 32=Deactive OPR_LS_LOC; 33=Activate OPR_LS_REM; 34=Deactive OPR_LS_REM; 35=Activate OPR_HS_LOC; 36=Deactive OPR_HS_LOC; 37=Activate OPR_HS_REM; 38=Deactive OPR_HS_REM;	Tests\Function tests\Differential prot	

															39=Activate RSTD2H_LOC; 40=Deactive RSTD2H_LOC; 41=Activate RSTD2H_REM; 42=Deactive RSTD2H_REM; 43=Activate PROT_ACTIVE; 44=Deactive PROT_ACTIVE		
LNPLDF1	3dI>L(1)	87L(1)	VER	LD0.LNLPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PCSITPC1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PCSITPC1	PCS(1)	PCS(1)	OUT	LD0.PCSITPC1.HealthWrn.stVal	SPS	BOOLEAN	ST	B					WARNING	Protection communication warning		Monitoring\I/O status\Condition monitoring\PCSITPC1\Outputs	
PCSITPC1	PCS(1)	PCS(1)	OUT	LD0.PCSITPC1.HealthOk.stVal	SPS	BOOLEAN	ST	B					OK	Protection communication ok		Monitoring\I/O status\Condition monitoring\PCSITPC1\Outputs	
PCSITPC1	PCS(1)	PCS(1)	OUT	LD0.PCSITPC1.HealthAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Protection communication alarm		Monitoring\I/O status\Condition monitoring\PCSITPC1\Outputs	
PCSITPC1	PCS(1)	PCS(1)	OUT	LD0.PCSITPC1.Comm.stVal	SPS	BOOLEAN	ST	B					COMM	Communication detected, active when data is received		Monitoring\I/O status\Condition monitoring\PCSITPC1\Outputs	
PCSITPC1	PCS(1)	PCS(1)	CTR	LD0.PCSITPC1.AlmCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Alarm count	Set new alarm count value	0...99999	Configuration\Condition monitoring\PCSITPC1	
PCSITPC1	PCS(1)	PCS(1)	CTR	LD0.PCSITPC1.WrnCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Warning count	Set new warning count value	0...99999	Configuration\Condition monitoring\PCSITPC1	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.EEHealth.stVal	ENS	Enum	ST	B					HEALTH	Communication link health	1=Ok; 2=Warning; 3=Alarm; -2=Waiting	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.LoopTestTm.mag.f	MV	FLOAT32	MX	B					RND_TRIP_DLY	Measured round trip delay	0.000...99.999 ms	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.SmplLty.mag.f	MV	FLOAT32	MX	B					SMPL_LATENCY	Measured sample latency	0.000...99.999 ms	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.AlmCntRs.stVal	INC	INT32	ST	A					ALARM_CNT	Number of alarms detected	0...99999	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.AlmCntRs.t	INC	Timestamp	ST	A					T_ALARM_CNT	Time when alarm count was last changed		Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.WrnCntRs.stVal	INC	INT32	ST	A					WARN_CNT	Number of warnings detected	0...99999	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.WrnCntRs.t	INC	Timestamp	ST	A					T_WARN_CNT	Time when warning count was last changed		Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	MON	LD0.PCSITPC1.PropDl.mag.f	MV	FLOAT32	MX	B					PROPAGTN_DLY	Measured propagation delay	0.000...99.999 ms	Monitoring\I/O status\Condition monitoring\PCSITPC1\Monitored data	
PCSITPC1	PCS(1)	PCS(1)	CFG	LD0.PCSITPC1.RsDlTmms.setVal	ING	INT32	SP	A	1000				Reset delay time	Reset delay time from alarm and warning into ok state	100...300000 ms	Configuration\Condition monitoring\PCSITPC1	
PCSITPC1	PCS(1)	PCS(1)	CFG	LD0.PCSITPC1.AlmCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Alarm count	Set new alarm count value	0...99999	Configuration\Condition monitoring\PCSITPC1	
PCSITPC1	PCS(1)	PCS(1)	CFG	LD0.PCSITPC1.WrnCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Warning count	Set new warning count value	0...99999	Configuration\Condition monitoring\PCSITPC1	
PCSITPC1	PCS(1)	PCS(1)	TES	LD0.PCSITPC1.RxErrGen.Oper.ctlVal	INC	INT32	CO	B	0				Packet loss	Test packet loss by missing number of packets	0...10000	Tests\Function tests\Differential prot	
PCSITPC1	PCS(1)	PCS(1)	VER	LD0.PCSITPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

LDPRLRC1: Load profile record

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LDPRLRC1			INP	LD0.LDPRLRC1.RcdRs.stVal	SPC	BOOLEAN	ST		0					(Reset load profile rec.)			
LDPRLRC1			OUT	LD0.LDPRLRC1.MemWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	MEM_WARN	Recording memory warning status		Monitoring\Load profile record	
LDPRLRC1			OUT	LD0.LDPRLRC1.MemAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	MEM_ALARM	Recording memory alarm status		Monitoring\Load profile record	
LDPRLRC1			CTR	LD0.LDPRLRC1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	Load Profile record	Reset load profile record	0=Cancel; 1=Clear	Clear\Clear	
LDPRLRC1			MON	LD0.LDPRLRC1.MemUsed.stVal	INS	INT32	ST	B					Rec. memory used	How much recording memory is currently used	0...100 %	Monitoring\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel1.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 1	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel2.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 2	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel3.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 3	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel4.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 4	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel5.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 5	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB;	Configuration\Load profile record	

															27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C		
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel6.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 6	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel7.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 7	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel8.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 8	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel9.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 9	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel10.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 10	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel11.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 11	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.QtySel12.setVal	ENG	Enum	SP	B,I	0				Quantity Sel 12	Select quantity to be recorded	0=Disabled; 1=IL1; 2=IL2; 3=IL3; 4=Io; 5=IL1B; 6=IL2B; 7=IL3B; 8=IoB; 9=U12; 10=U23; 11=U31; 12=UL1; 13=UL2; 14=UL3; 15=U12B; 16=U23B; 17=U31B; 18=UL1B; 19=UL2B; 20=UL3B; 21=S; 22=P; 23=Q; 24=PF; 25=SB; 26=PB; 27=QB; 28=PFB; 29=SL1; 30=SL2; 31=SL3; 32=PL1; 33=PL2; 34=PL3; 35=QL1; 36=QL2; 37=QL3; 38=PFL1; 39=PFL2; 40=PFL3; 41=SL1B; 42=SL2B; 43=SL3B; 44=PL1B; 45=PL2B; 46=PL3B; 47=QL1B; 48=QL2B; 49=QL3B; 50=PFL1B; 51=PFL2B; 52=PFL3B; 53=IL1C; 54=IL2C; 55=IL3C	Configuration\Load profile record	

LDPRLRC1			CFG	LD0.LDPRLRC1.MemWrnLev.setVal	ING	INT32	SP	B	0				Mem. warning level	Set memory warning level	0...100 %	Configuration\Load profile record	
LDPRLRC1			CFG	LD0.LDPRLRC1.MemAlmLev.setVal	ING	INT32	SP	B	0				Mem. alarm level	Set memory alarm level	0...100 %	Configuration\Load profile record	
LDPRLRC1			VER	LD0.LDPRLRC1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

PHHPTOC1: Three phase non-directional OC, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHHPTOC1	3I>>(1)	51P-2(1)	INP	LD0.PHHPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHHPTOC1\Inputs	
PHHPTOC1	3I>>(1)	51P-2(1)	INP	LD0.PHHPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHHPTOC1\Inputs	
PHHPTOC1	3I>>(1)	51P-2(1)	OUT	LD0.PHHPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHHPTOC1\Outputs	
PHHPTOC1	3I>>(1)	51P-2(1)	OUT	LD0.PHHPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHHPTOC1\Outputs	
PHHPTOC1	3I>>(1)	51P-2(1)	MON	LD0.PHHPTOC1.Beh.stVal	ENS	Enum	ST	B					PHHPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHHPTOC1	3I>>(1)	51P-2(1)	MON	LD0.PHHPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHHPTOC1\Monitored data	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\PHHPTOC1	IL1TCTR1

PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	SET	LD0.PHHPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\PHHPTOC1	
PHHPTOC1	3I>>(1)	51P-2(1)	TES	LD0.PHHPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHHPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHHPTOC1	3I>>(1)	51P-2(1)	VER	LD0.PHHPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

PHLPTOC1: Three phase non-directional OC, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHLPTOC1	3I>(1)	51P-1(1)	INP	LD0.PHLPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHLPTOC1\Inputs	
PHLPTOC1	3I>(1)	51P-1(1)	INP	LD0.PHLPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHLPTOC1\Inputs	
PHLPTOC1	3I>(1)	51P-1(1)	OUT	LD0.PHLPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHLPTOC1\Outputs	
PHLPTOC1	3I>(1)	51P-1(1)	OUT	LD0.PHLPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHLPTOC1\Outputs	
PHLPTOC1	3I>(1)	51P-1(1)	MON	LD0.PHLPTOC1.Beh.stVal	ENS	Enum	ST	B					PHLPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHLPTOC1	3I>(1)	51P-1(1)	MON	LD0.PHLPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHLPTOC1\Monitored data	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.;	Settings\Settings\Current protection\PHLPTOC1	

															14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type		
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\PHLPTOC1	IL1TCTR1
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	SET	LD0.PHLPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak; 5=Wide P-to-P	Settings\Settings\Current protection\PHLPTOC1	
PHLPTOC1	3I>(1)	51P-1(1)	TES	LD0.PHLPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHLPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHLPTOC1	3I>(1)	51P-1(1)	VER	LD0.PHLPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

PHIPTOC2: Three phase non-directional OC, inst. stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHIPTOC2	3I>>>(2)	50P/51P(2)	INP	LD0.PHIPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHIPTOC2\Inputs	
PHIPTOC2	3I>>>(2)	50P/51P(2)	INP	LD0.PHIPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHIPTOC2\Inputs	
PHIPTOC2	3I>>>(2)	50P/51P(2)	OUT	LD0.PHIPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHIPTOC2\Outputs	
PHIPTOC2	3I>>>(2)	50P/51P(2)	OUT	LD0.PHIPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHIPTOC2\Outputs	
PHIPTOC2	3I>>>(2)	50P/51P(2)	MON	LD0.PHIPTOC2.Beh.stVal	ENS	Enum	ST	B					PHIPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHIPTOC2	3I>>>(2)	50P/51P(2)	MON	LD0.PHIPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHIPTOC2\Monitored data	
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHIPTOC2	
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.00				Start value	Start value	1.00...40.00 xIn	Settings\Settings\Current protection\PHIPTOC2	IL1TCTR1
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	20				Operate delay time	Operate delay time	20...200000 ms	Settings\Settings\Current protection\PHIPTOC2	
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHIPTOC2	
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHIPTOC2	
PHIPTOC2	3I>>>(2)	50P/51P(2)	SET	LD0.PHIPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHIPTOC2	
PHIPTOC2	3I>>>(2)	50P/51P(2)	TES	LD0.PHIPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHIPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHIPTOC2	3I>>>(2)	50P/51P(2)	VER	LD0.PHIPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

PHHPTOC2: Three phase non-directional OC, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHHPTOC2	3I>>(2)	51P-2(2)	INP	LD0.PHHPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHHPTOC2\Inputs	
PHHPTOC2	3I>>(2)	51P-2(2)	INP	LD0.PHHPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHHPTOC2\Inputs	
PHHPTOC2	3I>>(2)	51P-2(2)	OUT	LD0.PHHPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHHPTOC2\Outputs	

PHHPTOC2	3I>>(2)	51P-2(2)	OUT	LD0.PHHPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHHPTOC2\Outputs	
PHHPTOC2	3I>>(2)	51P-2(2)	MON	LD0.PHHPTOC2.Beh.stVal	ENS	Enum	ST	B					PHHPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHHPTOC2	3I>>(2)	51P-2(2)	MON	LD0.PHHPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHHPTOC2\Monitored data	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\PHHPTOC2	IL1TCTR1
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHHPTOC2	
PHHPTOC2	3I>>(2)	51P-2(2)	SET	LD0.PHHPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\PHHPTOC2	

PHHPTOC2	3I>>(2)	51P-2(2)	TES	LD0.PHHPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHHPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHHPTOC2	3I>>(2)	51P-2(2)	VER	LD0.PHHPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

PHLPTOC2: Three phase non-directional OC, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHLPTOC2	3I>(2)	51P-1(2)	INP	LD0.PHLPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHLPTOC2\Inputs	
PHLPTOC2	3I>(2)	51P-1(2)	INP	LD0.PHLPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHLPTOC2\Inputs	
PHLPTOC2	3I>(2)	51P-1(2)	OUT	LD0.PHLPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHLPTOC2\Outputs	
PHLPTOC2	3I>(2)	51P-1(2)	OUT	LD0.PHLPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHLPTOC2\Outputs	
PHLPTOC2	3I>(2)	51P-1(2)	MON	LD0.PHLPTOC2.Beh.stVal	ENS	Enum	ST	B					PHLPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHLPTOC2	3I>(2)	51P-1(2)	MON	LD0.PHLPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHLPTOC2\Monitored data	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer	0.0...1.0	Settings\Settings\Current protection\PHLPTOC2	

														programmable curve			
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\PHLPTOC2	IL1TCTR1
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	SET	LD0.PHLPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak; 5=Wide P-to-P	Settings\Settings\Current protection\PHLPTOC2	
PHLPTOC2	3I>(2)	51P-1(2)	TES	LD0.PHLPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHLPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHLPTOC2	3I>(2)	51P-1(2)	VER	LD0.PHLPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

SSCBR1: Circuit breaker condition monitoring

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block input status		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.ColOpn.stVal	SPS	BOOLEAN	ST	B	0				OPEN_CB_EXE	Signal for open command to coil		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.InPosOpn.stVal	SPS	BOOLEAN	ST	B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.InPosCls.stVal	SPS	BOOLEAN	ST	B	0				POSCLOSE	Signal for closeposition of apparatus from I/O		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.ColCls.stVal	SPS	BOOLEAN	ST	B	0				CLOSE_CB_EXE	Signal for close command to coil		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.RsAccmAPwr.stVal	SPC	BOOLEAN	ST	B	0				RST_IPOW	Reset accumulation energy		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	

SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.RsCBWear.stVal	SPC	BOOLEAN	ST	B	0				RST_CB_WEAR	Reset input for CB remaining life and operation counter		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	INP	LD0.SSCBR1.RsTrvTm.stVal	SPC	BOOLEAN	ST	B	0				RST_TRV_T	Reset input for CB closing and opening travel times		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSIMG1			INP	LD0.SSIMG1.PresAlm.stVal	SPS	BOOLEAN	ST	B	0				PRES_ALM_IN	Binary pressure alarm input		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSIMG1			INP	LD0.SSIMG1.PresBlk.stVal	SPS	BOOLEAN	ST	B	0				PRES_LO_IN	Binary pressure input for lockout indication		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSOPM1			INP	LD0.SSOPM1.SprChaStr.stVal	SPS	BOOLEAN	ST	B	0				SPR_CHR_ST	CB spring charging started input		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSOPM1			INP	LD0.SSOPM1.SprChaStop.stVal	SPS	BOOLEAN	ST	B	0				SPR_CHR	CB spring charged input		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSOPM1			INP	LD0.SSOPM1.RsSprChaTm.stVal	SPC	BOOLEAN	ST	B	0				RST_SPR_T	Reset input for the charging time of the CB spring		Monitoring\I/O status\Condition monitoring\SSCBR1\Inputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.OpCntAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	OPR_ALM	Number of CB operations exceeds alarm limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	CB is in open position		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.PosIvd.stVal	SPS	BOOLEAN	ST	B					INVALIDPOS	CB is in invalid position (not positively open or closed)		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	CB is in closed position		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.OpnAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	TRV_T_OP_ALM	CB open travel time exceeded set value		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.ClsAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	TRV_T_CL_ALM	CB close travel time exceeded set value		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.OpCntLO.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	OPR_LO	Number of CB operations exceeds lockout limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.LonTmAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	MON_ALM	CB 'not operated for long time' alarm		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.APwrAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	IPOW_ALM	Accumulated currents power (Iyt),exceeded alarm limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.APwrLO.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	IPOW_LO	Accumulated currents power (Iyt),exceeded lockout limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	

SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.RmnNumOpAlm.stVal	SPS	BOOLEAN	ST	ED2,B		StatIed	P,H	MB,DN,I3	CB_LIFE_ALM	Remaining life of CB exceeded alarm limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	OUT	LD0.SSCBR1.RmnNumAlm.stVal	SPS	BOOLEAN	ST	ED1		StatIed	P,H	MB,DN,I3	CB_LIFE_ALM	Remaining life of CB exceeded alarm limit		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSIMG1			OUT	LD0.SSIMG1.InsAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	PRES_ALM	Pressure below alarm level		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSIMG1			OUT	LD0.SSIMG1.InsBlk.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	PRES_LO	Pressure below lockout level		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSOPM1			OUT	LD0.SSOPM1.SprChaAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	SPR_CHR_ALM	Spring charging time has crossed the set value		Monitoring\I/O status\Condition monitoring\SSCBR1\Outputs	
SSCBR1	CBCM(1)	CBCM(1)	CTR	LD0.SSCBR1.RsAccmAPwr.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	SSCBR1 acc.energy	Resets SSCBR1 accumulation energy	0=Cancel; 1=Clear	Clear\Clear	
SSCBR1	CBCM(1)	CBCM(1)	CTR	LD0.SSCBR1.RsCBWear.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	SSCBR1 rem.life	Reset SSCBR1 CB remaining life and operation counter	0=Cancel; 1=Clear	Clear\Clear	
SSCBR1	CBCM(1)	CBCM(1)	CTR	LD0.SSCBR1.RsTrvTm.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	SSCBR1 travel times	Reset CB closing and opening travel times	0=Cancel; 1=Clear	Clear\Clear	
SSOPM1			CTR	LD0.SSOPM1.RsSprChaTm.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	SSCBR1 spr.charge t	Reset the charging time of the CB spring	0=Cancel; 1=Clear	Clear\Clear	
SSCBR1	CBCM(1)	CBCM(1)	MON	LD0.SSCBR1.Beh.stVal	ENS	Enum	ST	B					SSCBR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
SSCBR1	CBCM(1)	CBCM(1)	MON	LD0.SSCBR1.OpTmOpn.mag.f	MV	FLOAT32	MX	B				MB,DN	T_TRV_OP	Travel time of the CB during opening operation	0...60000 ms	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SSCBR1	CBCM(1)	CBCM(1)	MON	LD0.SSCBR1.OpTmCls.mag.f	MV	FLOAT32	MX	B				MB,DN	T_TRV_CL	Travel time of the CB during closing operation	0...60000 ms	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SSCBR1	CBCM(1)	CBCM(1)	MON	LD0.SSCBR1.OpCntRs.stVal	INC	INT32	ST	B		StatIed	P,H	MB,DN	NO_OPR	Number of CB operation cycle	0...99999	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SSCBR1	CBCM(1)	CBCM(1)	MON	LD0.SSCBR1.InaTmdCnt.stVal	INS	INT32	ST	B				MB,DN	INA_DAYS	The number of days CB has been inactive	0...9999	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SPH1SCBR1			MON	LD0.SPH1SCBR1.RmnNumOp.stVal	INS	INT32	ST	B				MB,DN	CB_LIFE_A	CB Remaining life phase A	-99999...99999	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SPH1SCBR1			MON	LD0.SPH1SCBR1.AccmAPwr.mag.f	MV	FLOAT32	MX	B				MB,DN	IPOW_A	Accumulated currents power (Iyt), phase A	0.000...30000.000	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SPH2SCBR1			MON	LD0.SPH2SCBR1.RmnNumOp.stVal	INS	INT32	ST	B				MB,DN	CB_LIFE_B	CB Remaining life phase B	-99999...99999	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	

SPH2SCBR1			MON	LD0.SPH2SCBR1.AccmAPwr.mag.f	MV	FLOAT32	MX	B				MB,DN	IPOW_B	Accumulated currents power (Iyt), phase B	0.000...30000.000	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SPH3SCBR1			MON	LD0.SPH3SCBR1.RmnNumOp.stVal	INS	INT32	ST	B				MB,DN	CB_LIFE_C	CB Remaining life phase C	-99999...99999	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SPH3SCBR1			MON	LD0.SPH3SCBR1.AccmAPwr.mag.f	MV	FLOAT32	MX	B				MB,DN	IPOW_C	Accumulated currents power (Iyt), phase C	0.000...30000.000	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SSOPM1			MON	LD0.SSOPM1.TmsSprCha.mag.f	MV	FLOAT32	MX	B				MB,DN	T_SPR_CHR	The charging time of the CB spring	0.00...99.99 s	Monitoring\I/O status\Condition monitoring\SSCBR1\Monitored data	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.OpAlmNum.setVal	ING	INT32	SP	B	200				Alarm Op number	Alarm limit for number of operations	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.OpnAlmTmms.setVal	ING	INT32	SP	B	40				Open alarm time	Alarm level setting for open travel time in ms	0...200 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.CorOpnTmms.setVal	ING	INT32	SP	A	10				Opening time Cor	Correction factor for open travel time in ms	-100...100 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.ClsAlmTmms.setVal	ING	INT32	SP	B	40				Close alarm time	Alarm level Setting for close travel time in ms	0...200 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.CorClsTmms.setVal	ING	INT32	SP	A	10				Closing time Cor	Correction factor for CB close travel time in ms	-100...100 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.CorDifTmms.setVal	ING	INT32	SP	B	5				Difference Cor time	Corr. factor for time dif in aux. and main contacts open time	-10...10 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.OpLONum.setVal	ING	INT32	SP	B	300				Lockout Op number	Lock out limit for number of operations	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.OpNumRtg.setVal	ING	INT32	SP	B	10000				Op number rated	Number of operations possible at rated current	1...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.NumOpAlmLev.setVal	ING	INT32	SP	ED2,A	500				Life alarm level	Alarm level for CB remaining life	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.NumAlmLev.setVal	ING	INT32	SP	ED1	500				Life alarm level	Alarm level for CB remaining life	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.OpNumFlt.setVal	ING	INT32	SP	B	1000				Op number fault	Number of operations possible at rated fault current	1...10000	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.CntIniVal.setVal	ING	INT32	SP	A,I	0				Counter initial Val	The operation numbers counter initialization value	0...99999	Configuration\Condition monitoring\SSCBR1	

SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.InaAlmTmd.setVal	ING	INT32	SP	B,I	2000				Inactive Alm days	Alarm limit value of the inactive days counter	0...9999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.IniInaTmd.setVal	ING	INT32	SP	A,I	0				Ini inactive days	Initial value of the inactive days counter	0...9999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.InaAlmTmh.setVal	ING	INT32	SP	A,I	0				Inactive Alm hours	Alarm time of the inactive days counter in hours	0...23 h	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.TrvClcMod.setVal	ENG	Enum	SP	B	2				Travel time Clc mode	Travel time calculation mode selection	1=From Cmd to Pos; 2=From Pos to Pos	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.DirCff.setMag.f	ASG	FLOAT32	SP	B,I	-1.50				Directional Coef	Directional coefficient for CB life calculation	-3.00...-0.50	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.IniRmnNumOp.setMag.f	ASG	FLOAT32	SP	ED2,B,I	5000				Initial CB Rmn life	Initial value for the CB remaining life	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.IniRmnNum.setMag.f	ASG	FLOAT32	SP	ED1	5000				Initial CB Rmn life	Initial value for the CB remaining life	0...99999	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AlmAccmAPwr.setMag.f	ASG	FLOAT32	SP	ED2,B	2500.00				Alm Acc currents Pwr	Setting of alarm level for accumulated currents power	0.00...20000.00	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AlmAccAPwr.setMag.f	ASG	FLOAT32	SP	ED1	2500.00				Alm Acc currents Pwr	Setting of alarm level for accumulated currents power	0.00...20000.00	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AccmStopA.setMag.f	ASG	FLOAT32	SP	B	10.00				Acc stop current	RMS current setting below which engy acm stops	5.00...500.00 A	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.LOAccmAPwr.setMag.f	ASG	FLOAT32	SP	B	2500.00				LO Acc currents Pwr	Lockout limit setting for accumulated currents power	0.00...20000.00	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AExpn.setMag.f	ASG	FLOAT32	SP	B,I	2.00				Current exponent	Current exponent setting for energy calculation	0.00...2.00	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AOpRtg.setMag.f	ASG	FLOAT32	SP	B	1000.00				Rated Op current	Rated operating current of the breaker	100.00...5000.00 A	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.AFltRtg.setMag.f	ASG	FLOAT32	SP	B	5000.00				Rated fault current	Rated fault current of the breaker	500.00...75000.00 A	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.IniAccmAPwr.setMag.f	ASG	FLOAT32	SP	ED2,A	0.00				Ini Acc currents Pwr	Initial value for accumulation energy (Iyt)	0.00...20000.00	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	CFG	LD0.SSCBR1.IniAccAPwr.setMag.f	ASG	FLOAT32	SP	ED1	0.00				Ini Acc currents Pwr	Initial value for accumulation energy (Iyt)	0.00...20000.00	Configuration\Condition monitoring\SSCBR1	

SSIMG1			CFG	LD0.SSIMG1.InsAlmTmms.setVal	ING	INT32	SP	A	10				Pressure alarm time	Time delay for gas pressure alarm in ms	0...60000 ms	Configuration\Condition monitoring\SSCBR1	
SSIMG1			CFG	LD0.SSIMG1.InsBlkTmms.setVal	ING	INT32	SP	A	10				Pres lockout time	Time delay for gas pressure lockout in ms	0...60000 ms	Configuration\Condition monitoring\SSCBR1	
SSOPM1			CFG	LD0.SSOPM1.SprChaTmms.setVal	ING	INT32	SP	B	15000				Spring charge time	Setting of alarm for spring charging time of CB in ms	0...60000 ms	Configuration\Condition monitoring\SSCBR1	
SSCBR1	CBCM(1)	CBCM(1)	TES	LD0.SSCBR1.TestSpvn.Oper.ctlVal	ENC	Enum	CO	B	0				SSCBR1	Test control for outputs	0=Reset; 9=Act. TRV_T_OP_ALM; 10=Deact. TRV_T_OP_ALM; 11=Act. TRV_T_CL_ALM; 12=Deact. TRV_T_CL_ALM; 17=Activate SPR_CHR_ALM; 18=Deactive SPR_CHR_ALM; 19=Activate OPR_ALM; 20=Deactive OPR_ALM; 21=Activate OPR_LO; 22=Deactive OPR_LO; 23=Activate IPOW_ALM; 24=Deactive IPOW_ALM; 25=Activate IPOW_LO; 26=Deactive IPOW_LO; 27=Activate CB_LIFE_ALM; 28=Deactive CB_LIFE_ALM; 29=Activate MON_ALM; 30=Deactive MON_ALM; 31=Activate PRES_ALM; 32=Deactive PRES_ALM; 33=Activate PRES_LO; 34=Deactive PRES_LO; 35=Activate OPENPOS; 36=Deactive OPENPOS; 37=Activate INVALIDPOS; 38=Deactive INVALIDPOS; 39=Activate CLOSEPOS; 40=Deactive CLOSEPOS	Tests\Function tests\Condition monitoring	
SSCBR1	CBCM(1)	CBCM(1)	VER	LD0.SSCBR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

TPOSYLTC1: Tap changer position indication

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.TapPos.valWTr.posVal	ISC	INT8	ST	B	0	StatUrg	P,H	MB,DN,I3	TAP_POS	Tap position indication	-63...63	Monitoring\I/O status\Measurements\TPOSYLTC1\Monitored data	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.EndPosR.stVal	SPS	BOOLEAN	ST	B	0				END_POS_R	End position raise or highest allowed tap position reached		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.EndPosL.stVal	SPS	BOOLEAN	ST	B	0				END_POS_L	End position lower or lowest allowed tap position reached		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit1.stVal	SPS	BOOLEAN	ST	B	0				BI0	Binary input 1		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit2.stVal	SPS	BOOLEAN	ST	B	0				BI1	Binary input 2		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit3.stVal	SPS	BOOLEAN	ST	B	0				BI2	Binary input 3		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit4.stVal	SPS	BOOLEAN	ST	B	0				BI3	Binary input 4		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit5.stVal	SPS	BOOLEAN	ST	B	0				BI4	Binary input 5		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	

TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit6.stVal	SPS	BOOLEAN	ST	B	0				BI5	Binary input 6		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	INP	LD0.TPOSYLTC1.InBit7.stVal	SPS	BOOLEAN	ST	B	0				SIGN_BIT	Binary input sign bit		Monitoring\I/O status\Measurements\TPOSYLTC1\Inputs	
TPOSYLTC1	TPOSM(1)	84M(1)	OUT			Channel							TAP_POS	(ACT output channel)			
TPOSYLTC1	TPOSM(1)	84M(1)	CFG	LD0.TPOSYLTC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\TPOSYLTC1	
TPOSYLTC1	TPOSM(1)	84M(1)	CFG	LD0.TPOSYLTC1.BinCdMod.setVal	ENG	Enum	SP	B	2				Operation mode	Operation mode selection	1=NAT2INT; 2=BCD2INT; 3=GRAY2INT	Configuration\Measurements\TPOSYLTC1	
TPOSYLTC1	TPOSM(1)	84M(1)	VER	LD0.TPOSYLTC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

TR2PTDF1: Transformer differential protection of two winding transformers

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TR2PTDF1	3dI>T(1)	87T(1)	INP			Channel							TAP_POS	(ACT input channel)			
TR2PTDF1	3dI>T(1)	87T(1)	INP	LD0.TR2PTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block		Monitoring\I/O status\Differential prot\TR2PTDF1\Inputs	
TR2PTDF1	3dI>T(1)	87T(1)	INP	LD0.TR2LPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLK_OPR_LS	Blocks operate outputs from biased stage		Monitoring\I/O status\Differential prot\TR2PTDF1\Inputs	
TR2PTDF1	3dI>T(1)	87T(1)	INP	LD0.TR2HPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLK_OPR_HS	Blocks operate outputs from instantaneous stage		Monitoring\I/O status\Differential prot\TR2PTDF1\Inputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2PTRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate combined	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2LPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_LS	Operate from low set		Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2LPDIF1.BlkWavSt.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKDWAV	Waveform blocking status	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2LPDIF1.Blk2HSt.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD2H	2nd harmonic restraint block status	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2LPDIF1.Blk5HSt.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD5H	5th harmonic restraint block status	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	OUT	LD0.TR2HPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_HS	Operate from high set		Monitoring\I/O status\Differential prot\TR2PTDF1\Outputs	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2PTRC1.Beh.stVal	ENS	Enum	ST	B					TR2PTDF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2PTRC1.Op.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN	OPR_A	Operate phase A		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	

TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2PTRC1.Op.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN	OPR_B	Operate phase B		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2PTRC1.Op.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN	OPR_C	Operate phase C		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.DifAClc.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_A	Differential Current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.DifAClc.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_B	Differential Current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.DifAClc.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	ID_C	Differential Current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.RstA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_A	Biasing current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.RstA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_B	Biasing current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.RstA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	IB_C	Biasing current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.BlkWavSt.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKDWAV_A	Waveform blocking phase A status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.BlkWavSt.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKDWAV_B	Waveform blocking phase B status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.BlkWavSt.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKDWAV_C	Waveform blocking phase C status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk2HSt.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD2H_A	2nd harmonic restraint block phase A status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk2HSt.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD2H_B	2nd harmonic restraint block phase B status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk2HSt.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD2H_C	2nd harmonic restraint block phase C status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk5HSt.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD5H_A	5th harmonic restraint block phase A status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk5HSt.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD5H_B	5th harmonic restraint block phase B status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	

TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.Blk5HSt.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLKD5H_C	5th harmonic restraint block phase C status		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.ScyAComp.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_A2	Connection group compensated secondary current phase A	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.ScyAComp.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_B2	Connection group compensated secondary current phase B	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.ScyAComp.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_C2	Connection group compensated secondary current phase C	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.PriAComp.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_A1	Connection group compensated primary current phase A	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.PriAComp.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_B1	Connection group compensated primary current phase B	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.PriAComp.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_AMPL_C1	Connection group compensated primary current phase C	0.00...40.00 xIr	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriAB.mag.f	MV	FLOAT32	MX	B					I_ANGL_A1_B1	Current phase angle phase A to B, winding 1	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriBC.mag.f	MV	FLOAT32	MX	B					I_ANGL_B1_C1	Current phase angle phase B to C, winding 1	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriCA.mag.f	MV	FLOAT32	MX	B					I_ANGL_C1_A1	Current phase angle phase C to A, winding 1	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngScyAB.mag.f	MV	FLOAT32	MX	B					I_ANGL_A2_B2	Current phase angle phase A to B, winding 2	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngScyBC.mag.f	MV	FLOAT32	MX	B					I_ANGL_B2_C2	Current phase angle phase B to C, winding 2	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngScyCA.mag.f	MV	FLOAT32	MX	B					I_ANGL_C2_A2	Current phase angle phase C to A, winding 2	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriScyA.mag.f	MV	FLOAT32	MX	B					I_ANGL_A1_A2	Current phase angle diff between winding 1 and 2, phase A	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriScyB.mag.f	MV	FLOAT32	MX	B					I_ANGL_B1_B2	Current phase angle diff between winding 1 and 2, phase B	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2LPDIF1.AngPriScyC.mag.f	MV	FLOAT32	MX	B					I_ANGL_C1_C2	Current phase angle diff between winding 1 and 2, phase C	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	

TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.Str.general	ACD	BOOLEAN	ST	B					BLKD2HPHAR	2nd harmonic restraint blocking for PHAR LN, combined	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.Str.phsA	ACD	BOOLEAN	ST	B					BLKD2HPHAR_A	2nd harmonic restraint blocking for PHAR LN, phase A		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.Str.phsB	ACD	BOOLEAN	ST	B					BLKD2HPHAR_B	2nd harmonic restraint blocking for PHAR LN, phase B		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.Str.phsC	ACD	BOOLEAN	ST	B					BLKD2HPHAR_C	2nd harmonic restraint blocking for PHAR LN, phase C		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.AHRat.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_2H_RAT_A	Differential current second harmonic ratio, phase A	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.AHRat.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_2H_RAT_B	Differential current second harmonic ratio, phase B	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H2PHAR1.AHRat.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_2H_RAT_C	Differential current second harmonic ratio, phase C	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.Str.general	ACD	BOOLEAN	ST	B					BLKD5HPHAR	5th harmonic restraint blocking for PHAR LN, combined	(A,B,C)	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.Str.phsA	ACD	BOOLEAN	ST	B					BLKD5HPHAR_A	5th harmonic restraint blocking for PHAR LN, phase A		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.Str.phsB	ACD	BOOLEAN	ST	B					BLKD5HPHAR_B	5th harmonic restraint blocking for PHAR LN, phase B		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.Str.phsC	ACD	BOOLEAN	ST	B					BLKD5HPHAR_C	5th harmonic restraint blocking for PHAR LN, phase C		Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.AHRat.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_5H_RAT_A	Differential current fifth harmonic ratio, phase A	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.AHRat.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_5H_RAT_B	Differential current fifth harmonic ratio, phase B	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	MON	LD0.TR2H5PHAR1.AHRat.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_5H_RAT_C	Differential current fifth harmonic ratio, phase C	0.00...1.00	Monitoring\I/O status\Differential prot\TR2PTDF1\Monitored data	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2PTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off/On	1=on; 5=off	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	20				Low operate value	Basic setting for biased operation	5...50 %Ir	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.RstMod.setVal	ENG	Enum	SG	B	9				Restraint mode	Restraint mode	5=Waveform; 6=2.h + waveform; 8=5.h + waveform; 9=2.h + 5.h + wav	Settings\Settings\Differential prot\TR2PTDF1	

TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.SpeScn2.setMag.f	ASG	FLOAT32	SG	B	30				Slope section 2	Slope of the second line of the operating characteristics	10...50 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.EndScn2.setMag.f	ASG	FLOAT32	SG	B	150				End section 2	Turn-point between the second and the third line of the operating characteristics	100...500 %Ir	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.SpeScn3.setMag.f	ASG	FLOAT32	SG	A	100				Slope section 3	Slope of the third line of the operating characteristics	10...100 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.CTConnTyp.setVal	ENG	Enum	SP	B	1				CT connection type	CT connection type. Determined by the directions of the connected current transformers	1=Type 1; 2=Type 2	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.Wnd1Typ.setVal	ENG	Enum	SP	B	1				Winding 1 type	Connection of the HV side windings	1=Y; 2=YN; 3=D; 4=Z; 5=ZN	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.Wnd2Typ.setVal	ENG	Enum	SP	B	1				Winding 2 type	Connection of the LV side windings	1=y; 2=yn; 3=d; 4=z; 5=zn	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.ClkNum.setVal	ENG	Enum	SP	B	0				Clock number	Setting the phase shift between HV and LV with clock number for connection group compensation (e.g. Dyn11 -> 11)	0=Clk Num 0; 1=Clk Num 1; 2=Clk Num 2; 4=Clk Num 4; 5=Clk Num 5; 6=Clk Num 6; 7=Clk Num 7; 8=Clk Num 8; 10=Clk Num 10; 11=Clk Num 11	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.ZroAElm.setVal	ENG	Enum	SP	B	1				Zro A elimination	Elimination of the zero-sequence current	1=Not eliminated; 2=Winding 1; 3=Winding 2; 4=Winding 1 and 2	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.MinWndTap.setVal	ING	INT32	SP	A	36				Min winding tap	The tap position number resulting the minimum number of effective winding turns on the side of the transformer where the tap changer is.	-36...36	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.MaxWndTap.setVal	ING	INT32	SP	A	0				Max winding tap	The tap position number resulting the maximum number of effective winding turns on the side of the transformer where the tap changer is.	-36...36	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.TapNomLTC1.setVal	ING	INT32	SP	A,I	18				Tap nominal	The nominal position of the tap changer resulting the default transformation ratio of the transformer (as if there was no tap changer)	-36...36	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.TapWnd.setVal	ENG	Enum	SP	A	1				Tapped winding	The winding where the tap changer is connected to	1=Not in use; 2=Winding 1; 3=Winding 2	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.StepTap1.setMag.f	ASG	FLOAT32	SP	A	1.50				Step of tap	The percentage change in voltage corresponding one step of the tap changer	0.60...9.00 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.HDBlk.setVal	SPG	BOOLEAN	SG	A	1				Harmonic deblock 2.	2. harmonic deblocking in case of switch on to fault		Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.CTRatCor1.setMag.f	ASG	FLOAT32	SP	B	1.00				CT ratio Cor Wnd 1	CT ratio correction, winding 1	0.40...4.00	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2LPDIF1.CTRatCor2.setMag.f	ASG	FLOAT32	SP	B	1.00				CT ratio Cor Wnd 2	CT ratio correction, winding 2	0.40...4.00	Settings\Settings\Differential prot\TR2PTDF1	

TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2H2PHAR1.PhStr.setMag.f	ASG	FLOAT32	SG	B	15				Start value 2.H	2. harmonic blocking ratio	7...20 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2H5PHAR1.PhStr.setMag.f	ASG	FLOAT32	SG	B	35				Start value 5.H	5. harmonic blocking ratio	10...50 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2H5PHAR1.PhStop.setMag.f	ASG	FLOAT32	SG	A	35				Stop value 5.H	5. harmonic deblocking ratio	10...50 %	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2H5PHAR1.HDBlk.setVal	SPG	BOOLEAN	SG	A	0				Harmonic deblock 5.	5. harmonic deblocking in case of severe overvoltage		Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2HPDIF1.HiSet.setMag.f	ASG	FLOAT32	SG	B	1000				High operate value	Instantaneous stage setting	500...3000 %Ir	Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	SET	LD0.TR2HPDIF1.EnaHiSet.setVal	SPG	BOOLEAN	SG	A	1				Enable high set	Enable high set stage		Settings\Settings\Differential prot\TR2PTDF1	
TR2PTDF1	3dI>T(1)	87T(1)	TES	LD0.TR2LPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				TR2PTDF1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 59=Activate OPR_LS; 60=Deactive OPR_LS; 61=Activate OPR_HS; 62=Deactive OPR_HS; 63=Activate BLKD2H; 64=Deactive BLKD2H; 65=Activate BLKD5H; 66=Deactive BLKD5H; 67=Activate BLKDWAV; 68=Deactive BLKDWAV	Tests\Function tests\Differential prot	
TR2PTDF1	3dI>T(1)	87T(1)	VER	LD0.TR2LPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

T2PTTR1: Thermal overload protection, two time constants

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	INP	LD0.T2PTTR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\T2PTTR1\Inputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	INP	LD0.T2PTTR1.TmpAmb.mag.f	MV	FLOAT32	MX	B	0				AMB_TEMP	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\T2PTTR1\Inputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	OUT	LD0.T2PTTR1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\T2PTTR1\Outputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	OUT	LD0.T2PTTR1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\T2PTTR1\Outputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	OUT	LD0.T2PTTR1.AlmThm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Thermal Alarm		Monitoring\I/O status\Current protection\T2PTTR1\Outputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	OUT	LD0.T2PTTR1.BlkThm.stVal	SPS	BOOLEAN	ST	B					BLK_CLOSE	Thermal overload indicator. To inhibite reclose.		Monitoring\I/O status\Current protection\T2PTTR1\Outputs	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	CTR	LD0.T2PTTR1.RsTmp.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				T2PTTR1	Reset T2PTTR1 temperature	0=Cancel; 1=Clear	Clear\Clear	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.Beh.stVal	ENS	Enum	ST	B					T2PTTR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.Tmp.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	TEMP	The calculated temperature of the protected object	-100.0...9999.9 °C	Monitoring\I/O status\Current protection\T2PTTR1\Monitored data	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.TmpRl.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	TEMP_RL	The calculated temperature of the	0.00...99.99	Monitoring\I/O status\Current protection\T2PTTR1\Monitored data	

														protected object relative to the operate level				
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.TmpUsed.mag.f	MV	FLOAT32	MX	B					TEMP_AMB	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\T2PTTR1\Monitored data	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.OpTm.stVal	INS	INT32	ST	B				MB,DN	T_OPERATE	Estimated time to operate	0...60000 s	Monitoring\I/O status\Current protection\T2PTTR1\Monitored data	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	MON	LD0.T2PTTR1.BlkThmRsTm.stVal	INS	INT32	ST	B				MB,DN	T_ENA_CLOSE	Estimated time to deactivate BLK_CLOSE in seconds	0...60000 s	Monitoring\I/O status\Current protection\T2PTTR1\Monitored data	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.TmpMax.setMag.f	ASG	FLOAT32	SG	B	105.0				Max temperature	Maximum temperature allowed for the transformer	0.0...200.0 °C	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.ConsTms1.setVal	ING	INT32	SG	B	450				Short time constant	Short time constant in seconds	6...60000 s	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.ConsTms2.setVal	ING	INT32	SG	B	7200				Long time constant	Long time constant in seconds	60...60000 s	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.AlmVal.setMag.f	ASG	FLOAT32	SG	B	90.0				Alarm temperature	Alarm temperature, percent value	40.0...100.0 %	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.ARef.setMag.f	ASG	FLOAT32	SG	A	1.00				Current reference	The load current leading to Temperature raise temperature	0.05...4.00 xIn	Settings\Settings\Current protection\T2PTTR1	IL1TCTR1
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.EnvTmpSet.setMag.f	ASG	FLOAT32	SG	B	40				Env temperature Set	Ambient temperature used when no external temperature measurement available	-50...100 °C	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.IniTmp.setMag.f	ASG	FLOAT32	SP	A	80.0				Initial temperature	Initial temperature, percent value	0.0...100.0 %	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.RecTmpSet.setMag.f	ASG	FLOAT32	SG	B	60.0				Reclose temperature	Temperature for reset of block reclose after operate	40.0...100.0 %	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.TmpR.setMag.f	ASG	FLOAT32	SG	B	78.0				Temperature rise	End temperature rise above ambient	0.0...200.0 °C	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.WghFact.setMag.f	ASG	FLOAT32	SG	B	0.40				Weighting factor p	Weighting factor of the short time constant	0.00...1.00	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	SET	LD0.T2PTTR1.OpTmp.setMag.f	ASG	FLOAT32	SG	B	100.0				Operate temperature	Operate temperature, percent value	80.0...120.0 %	Settings\Settings\Current protection\T2PTTR1	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	TES	LD0.T2PTTR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				T2PTTR1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM; 21=Activate BLK_CLOSE; 22=Deactive BLK_CLOSE	Tests\Function tests\Current protection	
T2PTTR1	3Ith>T/G/C(1)	49T/G/C(1)	VER	LD0.T2PTTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

ESMGAPC1: Allow emergency start

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ESMGAPC1	ESTART(1)	ESTART(1)	INP	LD0.ESMGAPC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Control\ESMGAPC1\Inputs	
ESMGAPC1	ESTART(1)	ESTART(1)	INP	LD0.ESMGAPC1.RqEmgStr.stVal	SPS	BOOLEAN	ST	B	0				ST_EMERG_RQ	Emergency start input		Monitoring\I/O status\Control\ESMGAPC1\Inputs	
ESMGAPC1	ESTART(1)	ESTART(1)	OUT	LD0.ESMGAPC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_EMERG_ENA	Emergency start		Monitoring\I/O status\Control\ESMGAPC1\Outputs	
ESMGAPC1	ESTART(1)	ESTART(1)	MON	LD0.ESMGAPC1.Beh.stVal	ENS	Enum	ST	B					ESMGAPC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ESMGAPC1	ESTART(1)	ESTART(1)	MON	LD0.ESMGAPC1.Op.t	ACT	Timestamp	ST	B					T_ST_EMERG	Emergency start activation timestamp		Monitoring\I/O status\Control\ESMGAPC1\Monitored data	
ESMGAPC1	ESTART(1)	ESTART(1)	SET	LD0.ESMGAPC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Control\ESMGAPC1	
ESMGAPC1	ESTART(1)	ESTART(1)	SET	LD0.ESMGAPC1.StrVal.setMag.f	ASG	FLOAT32	SG	A	0.12				Motor standstill A	Current limit to check for motor standstill condition	0.05...0.20 xIn	Settings\Settings\Control\ESMGAPC1	IL1TCTR1
ESMGAPC1	ESTART(1)	ESTART(1)	TES	LD0.ESMGAPC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ESMGAPC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START	Tests\Function tests\Control	
ESMGAPC1	ESTART(1)	ESTART(1)	VER	LD0.ESMGAPC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

STTPMSU1: Motor startup supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	INP	LD0.STTPMSS1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Current protection\STTPMSU1\Inputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	INP	LD0.STTPMSS1.EnaEmgStr.stVal	SPS	BOOLEAN	ST	B	0				ST_EMERG_ENA	Enable emergency start to disable lock of start of motor		Monitoring\I/O status\Current protection\STTPMSU1\Inputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	INP	LD0.STTPMSS1.StlInd.stVal	SPS	BOOLEAN	ST	B	0				STALL_IND	Input signal for showing the motor is not stalling		Monitoring\I/O status\Current protection\STTPMSU1\Inputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	INP	LD0.STTPMSS1.BlkLOStr.stVal	SPS	BOOLEAN	ST	B	0				BLK_LK_ST	Blocks lock out condition for restart of motor		Monitoring\I/O status\Current protection\STTPMSU1\Inputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	INP	LD0.STTPMSS1.InPosCls.stVal	SPS	BOOLEAN	ST	B	0				CB_CLOSED	Input showing the status of motor circuit breaker		Monitoring\I/O status\Current protection\STTPMSU1\Inputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	OUT	LD0.STTPMSS1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	MOT_START	Signal to show that motor startup is in progress		Monitoring\I/O status\Current protection\STTPMSU1\Outputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	OUT	LD0.STTPMSS1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_STALL	Operate/trip signal for stalling protection.		Monitoring\I/O status\Current protection\STTPMSU1\Outputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	OUT	LD0.STTPMRI1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_IIT	Operate/trip signal for thermal stress.		Monitoring\I/O status\Current protection\STTPMSU1\Outputs	

STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	OUT	LD0.STTPMRI1.StrInh.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	LOCK_START	Lock out condition for restart of motor.		Monitoring\I/O status\Current protection\STTPMSU1\Outputs	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	CTR	LD0.STTPMRI1.RsStrUpCnt.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				STTPMSU1 counter	Reset number of motor start-ups counter	0=Cancel; 1=Clear	Clear\Clear	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMSS1.Beh.stVal	ENS	Enum	ST	B					STTPMSU1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMSS1.StrDur.mag.f	MV	FLOAT32	MX	B					STALL_RL	Start time relative to the operate time for stall condition	0.00...100.00 %	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.StrInhTmm.stVal	INS	INT32	ST	B					T_RST_ENA	Time left for restart when lockstart is enabled in minutes	0...999 min	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.StrUpCntRs.stVal	INC	INT32	ST	B					START_CNT	Number of motor start-ups occurred	0...999999	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.ThmStsPct.mag.f	MV	FLOAT32	MX	B					IIT_RL	Thermal stress relative to set maximum thermal stress	0.00...100.00 %	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.TmsCumStrUp.mag.f	MV	FLOAT32	MX	ED2,B					T_ST_CNT	Cumulated start-up time in sec	0.0...99999.9 s	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.TmCumStrUp.mag.f	MV	FLOAT32	MX	ED1					T_ST_CNT	Cumulated start-up time in sec	0.0...99999.9 s	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	MON	LD0.STTPMRI1.TmsStrUp.mag.f	MV	FLOAT32	MX	B					START_TIME	Measured motor latest startup time in sec	0.0...999.9 s	Monitoring\I/O status\Current protection\STTPMSU1\Monitored data	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.MotStr.setMag.f	ASG	FLOAT32	SG	A	1.5				Start detection A	Current value for detecting starting of motor.	0.1...10.0 xIn	Settings\Settings\Current protection\STTPMSU1	IL1TCTR1
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.LokRotTms.setVal	ING	INT32	SG	B	10				Lock rotor time	Permitted stalling time	2...120 s	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.OpModStUp.setVal	ENG	Enum	SP	B	1				Operation mode	Motor start-up operation mode	1=IIt; 2=IIt, CB; 3=IIt + stall; 4=IIt + stall, CB	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.StrOvDlTmms.setVal	ING	INT32	SG	ED2,B	100				Str over delay time	Time delay to check for completion of motor startup period	0...60000 ms	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.OvDlTmms.setVal	ING	INT32	SG	ED1	100				Str over delay time	Time delay to check for completion of motor startup period	0...60000 ms	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMSS1.MotStop.setMag.f	ASG	FLOAT32	SP	A	0.12				Motor standstill A	Current limit to check for motor standstill condition	0.05...0.20 xIn	Settings\Settings\Current protection\STTPMSU1	IL1TCTR1
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.SetA.setMag.f	ASG	FLOAT32	SG	B	2.0				Motor start-up A	Motor starting current	1.0...10.0 xIn	Settings\Settings\Current protection\STTPMSU1	IL1TCTR1
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.SetTms.setVal	ING	INT32	SG	B	5				Motor start-up time	Motor starting time	1...80 s	Settings\Settings\Current protection\STTPMSU1	

STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.InhTmm.setVal	ING	INT32	SP	B	30				Restart inhibit time	Time delay between consecutive startups	0...250 min	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.StrUpCntRs.Oper.ctlVal	INC	INT32	CO	B	0				Ini start up counter	Initial value for the START_CNT	0...999999	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.CntRedRte.setMag.f	ASG	FLOAT32	SP	B	60.0				Counter Red rate	Start time counter reduction rate	2.0...250.0 s/h	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.EmgRedRte.setMag.f	ASG	FLOAT32	SP	B	20.00				Emg start Red rate	Start time reduction factor when emergency start is On	0.00...100.00 %	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	SET	LD0.STTPMRI1.CumLimTms.setVal	ING	INT32	SP	B	10				Cumulative time Lim	Cumulative time based restart inhibit limit	1...500 s	Settings\Settings\Current protection\STTPMSU1	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	TES	LD0.STTPMSS1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				STTPMSU1	Test control for outputs	0=Reset; 49=Activate OPR_IIT; 50=Deactive OPR_IIT; 51=Activate OPR_STALL; 52=Deactive OPR_STALL; 53=Activate MOT_START; 54=Deactive MOT_START; 55=Activate LOCK_START; 56=Deactive LOCK_START	Tests\Function tests\Current protection	
STTPMSU1	Is2t n<(1)	49,66,48,51LR(1)	VER	LD0.STTPMSS1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C1					(Name plate)			

PREVPTOC1: Phase reversal protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PREVPTOC1	I2>>(1)	46R(1)	INP	LD0.PREVPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PREVPTOC1\Inputs	
PREVPTOC1	I2>>(1)	46R(1)	OUT	LD0.PREVPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\PREVPTOC1\Outputs	
PREVPTOC1	I2>>(1)	46R(1)	OUT	LD0.PREVPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\PREVPTOC1\Outputs	
PREVPTOC1	I2>>(1)	46R(1)	MON	LD0.PREVPTOC1.Beh.stVal	ENS	Enum	ST	B					PREVPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PREVPTOC1	I2>>(1)	46R(1)	MON	LD0.PREVPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PREVPTOC1\Monitored data	
PREVPTOC1	I2>>(1)	46R(1)	SET	LD0.PREVPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PREVPTOC1	IL1TCTR1
PREVPTOC1	I2>>(1)	46R(1)	SET	LD0.PREVPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.75				Start value	Start value	0.05...1.00 xIn	Settings\Settings\Current protection\PREVPTOC1	IL1TCTR1
PREVPTOC1	I2>>(1)	46R(1)	SET	LD0.PREVPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	100				Operate delay time	Operate delay time	100...60000 ms	Settings\Settings\Current protection\PREVPTOC1	
PREVPTOC1	I2>>(1)	46R(1)	TES	LD0.PREVPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PREVPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PREVPTOC1	I2>>(1)	46R(1)	VER	LD0.PREVPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

JAMPTOC1: Stalled motor

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
JAMPTOC1	Ist>(1)	51LR(1)	INP	LD0.JAMPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\JAMPTOC1\Inputs	
JAMPTOC1	Ist>(1)	51LR(1)	OUT	LD0.JAMPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\JAMPTOC1\Outputs	
JAMPTOC1	Ist>(1)	51LR(1)	MON	LD0.JAMPTOC1.Beh.stVal	ENS	Enum	ST	B					JAMPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
JAMPTOC1	Ist>(1)	51LR(1)	MON	LD0.JAMPTOC1.Str.general	ACD	BOOLEAN	ST	B					START	Start	(A,B,C)	Monitoring\I/O status\Current protection\JAMPTOC1\Monitored data	
JAMPTOC1	Ist>(1)	51LR(1)	MON	LD0.JAMPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\JAMPTOC1\Monitored data	
JAMPTOC1	Ist>(1)	51LR(1)	SET	LD0.JAMPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\JAMPTOC1	
JAMPTOC1	Ist>(1)	51LR(1)	SET	LD0.JAMPTOC1.StrVal.setMag.f	ASG	FLOAT32	SP	B	2.50				Start value	Start value	0.10...10.00 xIn	Settings\Settings\Current protection\JAMPTOC1	IL1TCTR1
JAMPTOC1	Ist>(1)	51LR(1)	SET	LD0.JAMPTOC1.OpDlTmms.setVal	ING	INT32	SP	B	2000				Operate delay time	Operate delay time	100...120000 ms	Settings\Settings\Current protection\JAMPTOC1	
JAMPTOC1	Ist>(1)	51LR(1)	SET	LD0.JAMPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	100				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\JAMPTOC1	
JAMPTOC1	Ist>(1)	51LR(1)	TES	LD0.JAMPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				JAMPTOC1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
JAMPTOC1	Ist>(1)	51LR(1)	VER	LD0.JAMPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MPTTR1: Motor thermal overload protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MPTTR1	3Ith>M(1)	49M(1)	INP	LD0.MPTTR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\MPTTR1\Inputs	
MPTTR1	3Ith>M(1)	49M(1)	INP	LD0.MPTTR1.EnaEmgStr.stVal	SPS	BOOLEAN	ST	B	0				START_EMERG	Signal for indicating the need for emergency start		Monitoring\I/O status\Current protection\MPTTR1\Inputs	
MPTTR1	3Ith>M(1)	49M(1)	INP	LD0.MPTTR1.TmpAmb.mag.f	MV	FLOAT32	MX	B	0				AMB_TEMP	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\MPTTR1\Inputs	
MPTTR1	3Ith>M(1)	49M(1)	OUT	LD0.MPTTR1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\MPTTR1\Outputs	
MPTTR1	3Ith>M(1)	49M(1)	OUT	LD0.MPTTR1.AlmThm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Thermal Alarm		Monitoring\I/O status\Current protection\MPTTR1\Outputs	
MPTTR1	3Ith>M(1)	49M(1)	OUT	LD0.MPTTR1.BlkThm.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	BLK_RESTART	Thermal overload indicator, to inhibit restart		Monitoring\I/O status\Current protection\MPTTR1\Outputs	
MPTTR1	3Ith>M(1)	49M(1)	CTR	LD0.MPTTR1.RsTmp.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				MPTTR1 temperature	Reset MPTTR1 tempetature	0=Cancel; 1=Clear	Clear\Clear	
MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.Beh.stVal	ENS	Enum	ST	B					MPTTR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	

MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.TmpRl.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	TEMP_RL	The calculated temperature of the protected object relative to the operate level	0.00...9.99	Monitoring\I/O status\Current protection\MPTTR1\Monitored data	
MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.TmpUsed.mag.f	MV	FLOAT32	MX	B				MB	TEMP_AMB	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\MPTTR1\Monitored data	
MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.ThmLevStr.mag.f	MV	FLOAT32	MX	B				MB	THERMLEV_ST	Thermal level at beginning of motor startup	0.00...9.99	Monitoring\I/O status\Current protection\MPTTR1\Monitored data	
MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.ThmLevEnd.mag.f	MV	FLOAT32	MX	B				MB	THERMLEV_END	Thermal level at the end of motor startup situation	0.00...9.99	Monitoring\I/O status\Current protection\MPTTR1\Monitored data	
MPTTR1	3Ith>M(1)	49M(1)	MON	LD0.MPTTR1.BlkThmRsTm.stVal	INS	INT32	ST	B				MB,DN	T_ENARESTART	Estimated time to reset of block restart	0...99999 s	Monitoring\I/O status\Current protection\MPTTR1\Monitored data	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.ConsTms1.setVal	ING	INT32	SG	B	320				Time constant normal	Motor time constant during the normal operation of motor	80...4000 s	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.ConsTms2.setVal	ING	INT32	SG	B	320				Time constant start	Motor time constant during the start of motor	80...4000 s	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.ConsTms3.setVal	ING	INT32	SG	B	500				Time constant stop	Motor time constant during the standstill condition of motor	80...60000 s	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.AlmVal.setMag.f	ASG	FLOAT32	SG	B	95.0				Alarm thermal value	Thermal level above which function gives an alarm	50.0...100.0 %	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.ARef.setMag.f	ASG	FLOAT32	SP	A	1.00				Current reference	Rated current (FLC) of the motor	0.30...2.00 xIn	Settings\Settings\Current protection\MPTTR1	IL1TCTR1
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.DropoutVal.setMag.f	ASG	FLOAT32	SG	B	40.0				Restart thermal Val	Thermal level above which function inhibits motor restarting	20.0...80.0 %	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.WghFact.setMag.f	ASG	FLOAT32	SG	B	50.0				Weighting factor p	Weighting factor (p)	20.0...100.0 %	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.OvlFact.setMag.f	ASG	FLOAT32	SG	B	1.05				Overload factor	Overload factor (k)	1.00...1.20	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.NgSeqFact.setMag.f	ASG	FLOAT32	SG	B	0.0				Negative Seq factor	Heating effect factor for negative sequence current	0.0...10.0	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.EnvTmpSet.setMag.f	ASG	FLOAT32	SG	B	40.0				Env temperature Set	Ambient temperature used when no external temperature measurement available	-20.0...70.0 °C	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.IniTmp.setMag.f	ASG	FLOAT32	SP	A	74.0				Initial thermal Val	Initial thermal level of the motor	0.0...100.0 %	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	SET	LD0.MPTTR1.EnvTmpMod.setVal	ENG	Enum	SG	B	1				Env temperature mode	Mode of measuring ambient temperature	1=FLC Only; 2=Use input; 3=Set Amb Temp	Settings\Settings\Current protection\MPTTR1	
MPTTR1	3Ith>M(1)	49M(1)	TES	LD0.MPTTR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MPTTR1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM; -9=Activate BLK_RESTART; -10=Deactive BLK_RESTART	Tests\Function tests\Current protection	
MPTTR1	3Ith>M(1)	49M(1)	VER	LD0.MPTTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

MNSPTOC1: Negative-phase-sequence time overcurrent protection for machines

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MNSPTOC1	I2>M(1)	46M(1)	INP	LD0.MNSPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\MNSPTOC1\Inputs	
MNSPTOC1	I2>M(1)	46M(1)	OUT	LD0.MNSPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\MNSPTOC1\Outputs	
MNSPTOC1	I2>M(1)	46M(1)	OUT	LD0.MNSPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\MNSPTOC1\Outputs	
MNSPTOC1	I2>M(1)	46M(1)	OUT	LD0.MNSPTOC1.StrInh.stVal	SPS	BOOLEAN	ST	B					BLK_RESTART	Overheated machine reconnection blocking		Monitoring\I/O status\Current protection\MNSPTOC1\Outputs	
MNSPTOC1	I2>M(1)	46M(1)	MON	LD0.MNSPTOC1.Beh.stVal	ENS	Enum	ST	B					MNSPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MNSPTOC1	I2>M(1)	46M(1)	MON	LD0.MNSPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\MNSPTOC1\Monitored data	
MNSPTOC1	I2>M(1)	46M(1)	MON	LD0.MNSPTOC1.TmsRecEna.stVal	INS	INT32	ST	B					T_ENARESTART	Estimated time to reset of block restart	0...10000 s	Monitoring\I/O status\Current protection\MNSPTOC1\Monitored data	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=Inv. Curve A; 18=Inv. Curve B	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.20				Start value	Start value	0.01...0.50 xIn	Settings\Settings\Current protection\MNSPTOC1	IL1TCTR1
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	5.0				Machine time Mult	Machine related time constant	5.0...100.0	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.MinOpTmms.setVal	ING	INT32	SP	B	100				Minimum operate time	Minimum operate time for IDMT curves	100...120000 ms	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.MaxOpTmms.setVal	ING	INT32	SP	B	1000000				Maximum operate time	Max operate time regardless of the inverse characteristic	500000...7200000 ms	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	1000				Operate delay time	Operate delay time	100...120000 ms	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.ARef.setMag.f	ASG	FLOAT32	SP	A	1.00				Current reference	Rated current (Ir) of the machine (used only in the IDMT)	0.30...2.00 xIn	Settings\Settings\Current protection\MNSPTOC1	IL1TCTR1
MNSPTOC1	I2>M(1)	46M(1)	SET	LD0.MNSPTOC1.ClTms.setVal	ING	INT32	SP	B	50				Cooling time	Time required to cool the machine	5...7200 s	Settings\Settings\Current protection\MNSPTOC1	
MNSPTOC1	I2>M(1)	46M(1)	TES	LD0.MNSPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MNSPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -9=Activate BLK_RESTART; -10=Deactive BLK_RESTART	Tests\Function tests\Current protection	

MNSPTOC1	I2>M(1)	46M(1)	VER	LD0.MNSPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MNSPTOC2: Negative-phase-sequence time overcurrent protection for machines

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MNSPTOC2	I2>M(2)	46M(2)	INP	LD0.MNSPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\MNSPTOC2\Inputs	
MNSPTOC2	I2>M(2)	46M(2)	OUT	LD0.MNSPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\MNSPTOC2\Outputs	
MNSPTOC2	I2>M(2)	46M(2)	OUT	LD0.MNSPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\MNSPTOC2\Outputs	
MNSPTOC2	I2>M(2)	46M(2)	OUT	LD0.MNSPTOC2.StrInh.stVal	SPS	BOOLEAN	ST	B					BLK_RESTART	Overheated machine reconnection blocking		Monitoring\I/O status\Current protection\MNSPTOC2\Outputs	
MNSPTOC2	I2>M(2)	46M(2)	MON	LD0.MNSPTOC2.Beh.stVal	ENS	Enum	ST	B					MNSPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MNSPTOC2	I2>M(2)	46M(2)	MON	LD0.MNSPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\MNSPTOC2\Monitored data	
MNSPTOC2	I2>M(2)	46M(2)	MON	LD0.MNSPTOC2.TmsRecEna.stVal	INS	INT32	ST	B					T_ENARESTART	Estimated time to reset of block restart	0...10000 s	Monitoring\I/O status\Current protection\MNSPTOC2\Monitored data	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=Inv. Curve A; 18=Inv. Curve B	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.20				Start value	Start value	0.01...0.50 xIn	Settings\Settings\Current protection\MNSPTOC2	IL1TCTR1
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	5.0				Machine time Mult	Machine related time constant	5.0...100.0	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.MinOpTmms.setVal	ING	INT32	SP	B	100				Minimum operate time	Minimum operate time for IDMT curves	100...120000 ms	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.MaxOpTmms.setVal	ING	INT32	SP	B	1000000				Maximum operate time	Max operate time regardless of the inverse characteristic	500000...7200000 ms	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	1000				Operate delay time	Operate delay time	100...120000 ms	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\MNSPTOC2	
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.ARef.setMag.f	ASG	FLOAT32	SP	A	1.00				Current reference	Rated current (Ir) of the machine (used only in the IDMT)	0.30...2.00 xIn	Settings\Settings\Current protection\MNSPTOC2	IL1TCTR1
MNSPTOC2	I2>M(2)	46M(2)	SET	LD0.MNSPTOC2.ClTms.setVal	ING	INT32	SP	B	50				Cooling time	Time required to cool the machine	5...7200 s	Settings\Settings\Current protection\MNSPTOC2	

MNSPTOC2	I2>M(2)	46M(2)	TES	LD0.MNSPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				MNSPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -9=Activate BLK_RESTART; -10=Deactive BLK_RESTART	Tests\Function tests\Current protection	
MNSPTOC2	I2>M(2)	46M(2)	VER	LD0.MNSPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LOFLPTUC1: Loss of load protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LOFLPTUC1	3I<(1)	37(1)	INP	LD0.LOFLPTUC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block all binary outputs by resetting timers		Monitoring\I/O status\Current protection\LOFLPTUC1\Inputs	
LOFLPTUC1	3I<(1)	37(1)	OUT	LD0.LOFLPTUC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\LOFLPTUC1\Outputs	
LOFLPTUC1	3I<(1)	37(1)	OUT	LD0.LOFLPTUC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\LOFLPTUC1\Outputs	
LOFLPTUC1	3I<(1)	37(1)	MON	LD0.LOFLPTUC1.Beh.stVal	ENS	Enum	ST	B					LOFLPTUC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LOFLPTUC1	3I<(1)	37(1)	MON	LD0.LOFLPTUC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\LOFLPTUC1\Monitored data	
LOFLPTUC1	3I<(1)	37(1)	SET	LD0.LOFLPTUC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\LOFLPTUC1	
LOFLPTUC1	3I<(1)	37(1)	SET	LD0.LOFLPTUC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.50				Start value high	Current setting/Start value high	0.01...1.00 xIn	Settings\Settings\Current protection\LOFLPTUC1	IL1TCTR1
LOFLPTUC1	3I<(1)	37(1)	SET	LD0.LOFLPTUC1.OpDlTmms.setVal	ING	INT32	SG	B	2000				Operate delay time	Operate delay time	400...600000 ms	Settings\Settings\Current protection\LOFLPTUC1	
LOFLPTUC1	3I<(1)	37(1)	SET	LD0.LOFLPTUC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\LOFLPTUC1	
LOFLPTUC1	3I<(1)	37(1)	SET	LD0.LOFLPTUC1.BlkValA.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value low	Current setting/Start value low	0.01...0.50 xIn	Settings\Settings\Current protection\LOFLPTUC1	IL1TCTR1
LOFLPTUC1	3I<(1)	37(1)	TES	LD0.LOFLPTUC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LOFLPTUC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
LOFLPTUC1	3I<(1)	37(1)	VER	LD0.LOFLPTUC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

PHPTUV1: Three phase undervoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTUV1	3U<(1)	27(1)	INP	LD0.PHPTUV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTUV1\Inputs	
PHPTUV1	3U<(1)	27(1)	OUT	LD0.PHPTUV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV1\Outputs	

PHPTUV1	3U<(1)	27(1)	OUT	LD0.PHPTUV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV1\Outputs	
PHPTUV1	3U<(1)	27(1)	MON	LD0.PHPTUV1.Beh.stVal	ENS	Enum	ST	B					PHPTUV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTUV1	3U<(1)	27(1)	MON	LD0.PHPTUV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTUV1\Monitored data	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 21=Inv. Curve A; 22=Inv. Curve B; 23=Programmable	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Start value	Start value	0.05...1.20 xUn	Settings\Settings\Voltage protection\PHPTUV1	UL1TVTR1
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.MinOpTmms.setVal	ING	INT32	SP	A	60				Minimum operate time	Minimum operate time for IDMT curves	60...60000 ms	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...300000 ms	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.BlkVal.setMag.f	ASG	FLOAT32	SP	A	0.20				Voltage block value	Low level blocking for undervoltage mode	0.05...1.00 xUn	Settings\Settings\Voltage protection\PHPTUV1	UL1TVTR1
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.EnaBlkVal.setVal	SPG	BOOLEAN	SP	A	1				Enable block value	Enable internal blocking		Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTUV1	
PHPTUV1	3U<(1)	27(1)	SET	LD0.PHPTUV1.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTUV1	

PHPTUV1	3U<(1)	27(1)	TES	LD0.PHPTUV1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTUV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTUV1	3U<(1)	27(1)	VER	LD0.PHPTUV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHPTUV2: Three phase undervoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTUV2	3U<(2)	27(2)	INP	LD0.PHPTUV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTUV2\Inputs	
PHPTUV2	3U<(2)	27(2)	OUT	LD0.PHPTUV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV2\Outputs	
PHPTUV2	3U<(2)	27(2)	OUT	LD0.PHPTUV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV2\Outputs	
PHPTUV2	3U<(2)	27(2)	MON	LD0.PHPTUV2.Beh.stVal	ENS	Enum	ST	B					PHPTUV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTUV2	3U<(2)	27(2)	MON	LD0.PHPTUV2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTUV2\Monitored data	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 21=Inv. Curve A; 22=Inv. Curve B; 23=Programmable	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Start value	Start value	0.05...1.20 xUn	Settings\Settings\Voltage protection\PHPTUV2	UL1TVTR1
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.MinOpTmms.setVal	ING	INT32	SP	A	60				Minimum operate time	Minimum operate time for IDMT curves	60...60000 ms	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...300000 ms	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTUV2	

PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.BlkVal.setMag.f	ASG	FLOAT32	SP	A	0.20				Voltage block value	Low level blocking for undervoltage mode	0.05...1.00 xUn	Settings\Settings\Voltage protection\PHPTUV2	UL1TVTR1
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.EnaBlkVal.setVal	SPG	BOOLEAN	SP	A	1				Enable block value	Enable internal blocking		Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	SET	LD0.PHPTUV2.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTUV2	
PHPTUV2	3U<(2)	27(2)	TES	LD0.PHPTUV2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTUV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTUV2	3U<(2)	27(2)	VER	LD0.PHPTUV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHPTUV3: Three phase undervoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTUV3	3U<(3)	27(3)	INP	LD0.PHPTUV3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTUV3\Inputs	
PHPTUV3	3U<(3)	27(3)	OUT	LD0.PHPTUV3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV3\Outputs	
PHPTUV3	3U<(3)	27(3)	OUT	LD0.PHPTUV3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTUV3\Outputs	
PHPTUV3	3U<(3)	27(3)	MON	LD0.PHPTUV3.Beh.stVal	ENS	Enum	ST	B					PHPTUV3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTUV3	3U<(3)	27(3)	MON	LD0.PHPTUV3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTUV3\Monitored data	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 21=Inv. Curve A; 22=Inv. Curve B; 23=Programmable	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTUV3	

PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Start value	Start value	0.05...1.20 xUn	Settings\Settings\Voltage protection\PHPTUV3	UL1TVTR1
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.MinOpTmms.setVal	ING	INT32	SP	A	60				Minimum operate time	Minimum operate time for IDMT curves	60...60000 ms	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...300000 ms	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.BlkVal.setMag.f	ASG	FLOAT32	SP	A	0.20				Voltage block value	Low level blocking for undervoltage mode	0.05...1.00 xUn	Settings\Settings\Voltage protection\PHPTUV3	UL1TVTR1
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.EnaBlkVal.setVal	SPG	BOOLEAN	SP	A	1				Enable block value	Enable internal blocking		Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	SET	LD0.PHPTUV3.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTUV3	
PHPTUV3	3U<(3)	27(3)	TES	LD0.PHPTUV3.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTUV3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTUV3	3U<(3)	27(3)	VER	LD0.PHPTUV3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHPTOV1: Three phase overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTOV1	3U>(1)	59(1)	INP	LD0.PHPTOV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTOV1\Inputs	
PHPTOV1	3U>(1)	59(1)	OUT	LD0.PHPTOV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV1\Outputs	
PHPTOV1	3U>(1)	59(1)	OUT	LD0.PHPTOV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV1\Outputs	
PHPTOV1	3U>(1)	59(1)	MON	LD0.PHPTOV1.Beh.stVal	ENS	Enum	ST	B					PHPTOV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTOV1	3U>(1)	59(1)	MON	LD0.PHPTOV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTOV1\Monitored data	

PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=Inv. Curve A; 18=Inv. Curve B; 19=Inv. Curve C; 20=Programmable	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.10				Start value	Start value	0.05...1.60 xUn	Settings\Settings\Voltage protection\PHPTOV1	UL1TVTR1
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.MinOpTmms.setVal	ING	INT32	SP	A	40				Minimum operate time	Minimum operate time for IDMT curves	40...60000 ms	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	SET	LD0.PHPTOV1.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTOV1	
PHPTOV1	3U>(1)	59(1)	TES	LD0.PHPTOV1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTOV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTOV1	3U>(1)	59(1)	VER	LD0.PHPTOV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHPTOV2: Three phase overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTOV2	3U>(2)	59(2)	INP	LD0.PHPTOV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTOV2\Inputs	
PHPTOV2	3U>(2)	59(2)	OUT	LD0.PHPTOV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV2\Outputs	
PHPTOV2	3U>(2)	59(2)	OUT	LD0.PHPTOV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV2\Outputs	
PHPTOV2	3U>(2)	59(2)	MON	LD0.PHPTOV2.Beh.stVal	ENS	Enum	ST	B					PHPTOV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTOV2	3U>(2)	59(2)	MON	LD0.PHPTOV2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTOV2\Monitored data	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=Inv. Curve A; 18=Inv. Curve B; 19=Inv. Curve C; 20=Programmable	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.10				Start value	Start value	0.05...1.60 xUn	Settings\Settings\Voltage protection\PHPTOV2	UL1TVTR1
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.MinOpTmms.setVal	ING	INT32	SP	A	40				Minimum operate time	Minimum operate time for IDMT curves	40...60000 ms	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTOV2	

PHPTOV2	3U>(2)	59(2)	SET	LD0.PHPTOV2.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTOV2	
PHPTOV2	3U>(2)	59(2)	TES	LD0.PHPTOV2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTOV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTOV2	3U>(2)	59(2)	VER	LD0.PHPTOV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHPTOV3: Three phase overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPTOV3	3U>(3)	59(3)	INP	LD0.PHPTOV3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PHPTOV3\Inputs	
PHPTOV3	3U>(3)	59(3)	OUT	LD0.PHPTOV3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV3\Outputs	
PHPTOV3	3U>(3)	59(3)	OUT	LD0.PHPTOV3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Voltage protection\PHPTOV3\Outputs	
PHPTOV3	3U>(3)	59(3)	MON	LD0.PHPTOV3.Beh.stVal	ENS	Enum	ST	B					PHPTOV3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPTOV3	3U>(3)	59(3)	MON	LD0.PHPTOV3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PHPTOV3\Monitored data	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=Inv. Curve A; 18=Inv. Curve B; 19=Inv. Curve C; 20=Programmable	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setParA	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter A	Parameter A for customer programmable curve	0.005...200.000	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setParB	CURVE	FLOAT32	SP	B,I	1.00				Curve parameter B	Parameter B for customer programmable curve	0.50...100.00	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setParC	CURVE	FLOAT32	SP	B,I	0.0				Curve parameter C	Parameter C for customer programmable curve	0.0...1.0	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setParD	CURVE	FLOAT32	SP	B,I	0.000				Curve parameter D	Parameter D for customer programmable curve	0.000...60.000	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmVCrv.setParE	CURVE	FLOAT32	SP	B,I	1.000				Curve parameter E	Parameter E for customer programmable curve	0.000...3.000	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.10				Start value	Start value	0.05...1.60 xUn	Settings\Settings\Voltage protection\PHPTOV3	UL1TVTR1
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.MinOpTmms.setVal	ING	INT32	SP	A	40				Minimum operate time	Minimum operate time for IDMT curves	40...60000 ms	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PHPTOV3	

PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.CrvSatRl.setMag.f	ASG	FLOAT32	SP	A,I	0.0				Curve Sat Relative	Tuning parameter to avoid curve discontinuities	0.0...10.0	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.VSel.setVal	ENG	Enum	SP	B	2				Voltage selection	Parameter to select phase or phase-to-phase voltages	1=phase-to-earth; 2=phase-to-phase	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	SET	LD0.PHPTOV3.TypTmRs.setVal	ENG	Enum	SG	A	1				Type of time reset	Selection of time reset	1=Freeze Op timer; 2=Decrease Op timer	Settings\Settings\Voltage protection\PHPTOV3	
PHPTOV3	3U>(3)	59(3)	TES	LD0.PHPTOV3.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPTOV3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PHPTOV3	3U>(3)	59(3)	VER	LD0.PHPTOV3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

VSMSQI1: Sequence voltage measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c1.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	PsSeq-kV	Measured positive sequence voltage	0.00...4.00 xUn	Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c1.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U1_ANGL	Positive sequence voltage angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c1.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U1_DB	Positive sequence voltage amplitude, reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c1.range	SEQ	Enum	MX	B		MeasFlt	P		U1_RANGE	Positive sequence voltage amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c2.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	NgSeq-kV	Measured negative sequence voltage	0.00...4.00 xUn	Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c2.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U2_ANGL	Negative sequence voltage angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c2.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U2_DB	Negative sequence voltage amplitude, reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c2.range	SEQ	Enum	MX	B		MeasFlt	P		U2_RANGE	Negative sequence voltage amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c3.instCVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	ZroSeq-kV	Measured zero sequence voltage	0.00...4.00 xUn	Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c3.instCVal.ang.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U0_ANGL	Zero sequence voltage angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1

VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c3.cVal.mag.f	SEQ	FLOAT32	MX	B		MeasFlt	P		U0_DB	Zero sequence voltage amplitude, reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	MON	LD0.VSMSQI1.SeqV.c3.range	SEQ	Enum	MX	B		MeasFlt	P		U0_RANGE	Zero sequence voltage amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VSMSQI1\Monitored data	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\VSMSQI1	
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c1.db	SEQ	INT32U	CF	B,I	10000				Ps Seq V deadband	Deadband configuration value for positive sequence voltage for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c1.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	1.40				Ps Seq V Hi high Lim	High alarm voltage limit for positive sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c1.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	1.20				Ps Seq V high limit	High warning voltage limit for positive sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c1.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ps Seq V low limit	Low warning voltage limit for positive sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c1.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ps Seq V low low Lim	Low alarm voltage limit for positive sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c2.db	SEQ	INT32U	CF	B,I	10000				Ng Seq V deadband	Deadband configuration value for negative sequence voltage for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c2.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	0.20				Ng Seq V Hi high Lim	High alarm voltage limit for negative sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c2.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	0.05				Ng Seq V High limit	High warning voltage limit for negative sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c2.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ng Seq V low limit	Low warning voltage limit for negative sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c2.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Ng Seq V low low Lim	Low alarm voltage limit for negative sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c3.db	SEQ	INT32U	CF	B,I	10000				Zro V deadband	Deadband configuration value for zero sequence voltage for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c3.rangeC.hhLim.f	SEQ	FLOAT32	CF	B,I	0.20				Zro V Hi high Lim	High alarm voltage limit for zero sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c3.rangeC.hLim.f	SEQ	FLOAT32	CF	B,I	0.05				Zro V High limit	High warning voltage limit for zero sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c3.rangeC.lLim.f	SEQ	FLOAT32	CF	B,I	0.00				Zro V low limit	Low warning voltage limit for zero sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	CFG	LD0.VSMSQI1.SeqV.c3.rangeC.llLim.f	SEQ	FLOAT32	CF	B,I	0.00				Zro V low low Lim	Low alarm voltage limit for zero sequence voltage	0.00...4.00 xUn	Configuration\Measurements\VSMSQI1	UL1TVTR1
VSMSQI1	U1,U2,U0(1)	V1,V2,V0(1)	VER	LD0.VSMSQI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

VMMXU1: Three-phase voltage measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
VMMXU1	3U(1)	3V(1)	INP	LD0.VMMXU1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\VMMXU1\Inputs	
VMMXU1	3U(1)	3V(1)	OUT	LD0.VMMXU1.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\VMMXU1\Outputs	
VMMXU1	3U(1)	3V(1)	OUT	LD0.VMMXU1.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\VMMXU1\Outputs	
VMMXU1	3U(1)	3V(1)	OUT	LD0.VMMXU1.LoWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_WARN	Low warning		Monitoring\I/O status\Measurements\VMMXU1\Outputs	
VMMXU1	3U(1)	3V(1)	OUT	LD0.VMMXU1.LoAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_ALARM	Low alarm		Monitoring\I/O status\Measurements\VMMXU1\Outputs	
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsAB.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U12-kV	Measured phase to phase voltage amplitude phase AB	0.00...4.00 xUn	Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsAB.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_AB	U12 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_AB	U12 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsAB.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_AB	U12 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsBC.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U23-kV	Measured phase to phase voltage amplitude phase BC	0.00...4.00 xUn	Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsBC.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_BC	U23 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_BC	U23 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsBC.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_BC	U23 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsCA.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U31-kV	Measured phase to phase voltage amplitude phase CA	0.00...4.00 xUn	Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsCA.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_CA	U31 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_CA	U31 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PPV.phsCA.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_CA	U31 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_A	UL1 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsA.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_A	UL1 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_B	UL2 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsB.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_B	UL2 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1

VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_C	UL3 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VMMXU1.PhV.phsC.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_C	UL3 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PPV.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_AB	Demand value of U12 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PPV.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_BC	Demand value of U23 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PPV.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_CA	Demand value of U31 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_A	Demand value of UL1 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_B	Demand value of UL2 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	MON	LD0.VAVMMXU1.PhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_C	Demand value of UL3 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU1\Monitored data	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\VMMXU1	
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.PPV.phsAB.db	DEL	INT32U	CF	B,I	10000				V deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.PPV.phsAB.rangeC.hhLim.f	DEL	FLOAT32	CF	B,I	1.40				V high high limit	High alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.PPV.phsAB.rangeC.hLim.f	DEL	FLOAT32	CF	B,I	1.20				V high limit	High warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.PPV.phsAB.rangeC.lLim.f	DEL	FLOAT32	CF	B,I	0.00				V low limit	Low warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.PPV.phsAB.rangeC.llLim.f	DEL	FLOAT32	CF	B,I	0.00				V low low limit	Low alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU1	UL1TVTR1
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.VMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\VMMXU1	
VMMXU1	3U(1)	3V(1)	CFG	LD0.VMMXU1.NumPh.setVal	ENG	Enum	SP	B	1				Num of phases	Number of phases required by limit supervision	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Configuration\Measurements\VMMXU1	
VMMXU1	3U(1)	3V(1)	VER	LD0.VMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

EFHPTOC1: Non-directional earth-fault protection, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFHPTOC1	Io>>(1)	51N-2(1)	INP	LD0.EFHPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFHPTOC1\Inputs	
EFHPTOC1	Io>>(1)	51N-2(1)	INP	LD0.EFHPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\EFHPTOC1\Inputs	
EFHPTOC1	Io>>(1)	51N-2(1)	OUT	LD0.EFHPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFHPTOC1\Outputs	
EFHPTOC1	Io>>(1)	51N-2(1)	OUT	LD0.EFHPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFHPTOC1\Outputs	
EFHPTOC1	Io>>(1)	51N-2(1)	MON	LD0.EFHPTOC1.Beh.stVal	ENS	Enum	ST	B					EFHPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	

EFHPTOC1	Io>>(1)	51N-2(1)	MON	LD0.EFHPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFHPTOC1\Monitored data	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\EFHPTOC1	RESTCTR1
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	SET	LD0.EFHPTOC1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFHPTOC1	
EFHPTOC1	Io>>(1)	51N-2(1)	TES	LD0.EFHPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFHPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFHPTOC1	Io>>(1)	51N-2(1)	VER	LD0.EFHPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

COLPTOC1: Capacitor bank overload protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
COLPTOC1	3I>3I<(1)	51C/37(1)	INP	LD0.COL1PTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\COLPTOC1\Inputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	INP	LD0.COLPTUC1.InPosCls.stVal	SPS	BOOLEAN	ST	B	0				CB_CLOSED	Input showing the status of capacitor circuit breaker		Monitoring\I/O status\Current protection\COLPTOC1\Inputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COL1PTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_OVLOD	Overload started		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COL1PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OVLOD	Overload operated		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COL2PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COLPTUC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_UN_I	Under current started		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COLPTUC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UN_I	Operate under current		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	OUT	LD0.COLPTUC1.InhRec.stVal	SPS	BOOLEAN	ST	B					BLK_CLOSE	Inhibit re-close of capacitor bank		Monitoring\I/O status\Current protection\COLPTOC1\Outputs	
COLPTOC1	3I>3I<(1)	51C/37(1)	CTR	LD0.COLPTUC1.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				COLPTOC1 Inh reclose	Reset COLPTOC1 inhibit reclose	0=Cancel; 1=Clear	Clear\Clear	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COL1PTOC1.Beh.stVal	ENS	Enum	ST	B					COLPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COL1PTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OVLOD	Start duration for overload stage	0.00...100.00 %	Monitoring\I/O status\Current protection\COLPTOC1\Monitored data	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COL1PTOC1.PkIntgAPhA.mag.f	MV	FLOAT32	MX	B					I_PEAK_INT_A	Phase A peak value of the integrated current of the capacitor	0.00...40.00	Monitoring\I/O status\Current protection\COLPTOC1\Monitored data	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COL1PTOC1.PkIntgAPhB.mag.f	MV	FLOAT32	MX	B					I_PEAK_INT_B	Phase B peak value of the integrated current of the capacitor	0.00...40.00	Monitoring\I/O status\Current protection\COLPTOC1\Monitored data	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COL1PTOC1.PkIntgAPhC.mag.f	MV	FLOAT32	MX	B					I_PEAK_INT_C	Phase C peak value of the integrated current of the capacitor	0.00...40.00	Monitoring\I/O status\Current protection\COLPTOC1\Monitored data	
COLPTOC1	3I>3I<(1)	51C/37(1)	MON	LD0.COLPTUC1.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UN_I	Start duration for under current operation	0.00...100.00 %	Monitoring\I/O status\Current protection\COLPTOC1\Monitored data	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL1PTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL1PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.00				Start value overload	Start value for overload stage	0.30...1.50 xIn	Settings\Settings\Current protection\COLPTOC1	IL1TCTR1

COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL1PTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier for Capacitor Bank protection curves	0.05...2.00	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL1PTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL2PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	105				Alarm start value	Alarm start value (% of Start value overload)	80...120 %	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COL2PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	300000				Alarm delay time	Alarm delay time	500...6000000 ms	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COLPTUC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.50				Start value Un Cur	Start value for under current operation	0.10...0.70 xIn	Settings\Settings\Current protection\COLPTOC1	IL1TCTR1
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COLPTUC1.OpDlTmms.setVal	ING	INT32	SG	B	1000				Un Cur delay time	Delay time for under current operation	100...120000 ms	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COLPTUC1.EnaUnCur.setVal	SPG	BOOLEAN	SP	A	1				Enable under current	Enable under current functionality	0=Disable; 1=Enable	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COLPTUC1.RecInhMod.setVal	ENG	Enum	SP	B	1				Reclose inhibit mode	Reclose inhibit mode	1=Non-latched; 3=Lockout	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	SET	LD0.COLPTUC1.RecInhTms.setVal	ING	INT32	SG	A	1				Reclose inhibit time	Reclose inhibit time	1...6000 s	Settings\Settings\Current protection\COLPTOC1	
COLPTOC1	3I>3I<(1)	51C/37(1)	TES	LD0.COL1PTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				COLPTOC1	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM; 21=Activate BLK_CLOSE; 22=Deactive BLK_CLOSE; 113=Activate OPR_OVLOD; 114=Deactive OPR_OVLOD; 115=Activate ST_OVLOD; 116=Deactive ST_OVLOD; 117=Activate OPR_UN_I; 118=Deactive OPR_UN_I; 119=Activate ST_UN_I; 120=Deactive ST_UN_I	Tests\Function tests\Current protection	
COLPTOC1	3I>3I<(1)	51C/37(1)	VER	LD0.COL1PTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

CUBPTOC1: Capacitor bank unbalance current, double Y bridge

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CUBPTOC1	dI>C(1)	51NC-1(1)	INP	LD0.CUB1PTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\CUBPTOC1\Inputs	
CUBPTOC1	dI>C(1)	51NC-1(1)	OUT	LD0.CUB1PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Current protection\CUBPTOC1\Outputs	
CUBPTOC1	dI>C(1)	51NC-1(1)	OUT	LD0.CUB2PTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\CUBPTOC1\Outputs	
CUBPTOC1	dI>C(1)	51NC-1(1)	OUT	LD0.CUB2PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\CUBPTOC1\Outputs	

CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.FailCnt.Oper.ctlVal	INC	INT32	CO							(Total number of capacitor element failures)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr1PhsA.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch1 of phase A)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr2PhsA.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch2 of phase A)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr1PhsB.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch1 of phase B)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr2PhsB.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch2 of phase B)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr1PhsC.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch1 of phase C)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntBr2PhsC.Oper.ctlVal	INC	INT32	CO							(Capacitor element failures in branch2 of phase C)			
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				CUBPTOC1 counters	Reset all the counters	0=Cancel; 1=Clear	Clear\Clear	
CUBPTOC1	dI>C(1)	51NC-1(1)	CTR	LD0.CUB1PTOC1.RcdUnb.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Record unbalance	Record unbalance current	0=Do not record; 1=Record	Control\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.Beh.stVal	ENS	Enum	ST	B					CUBPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.FailCnt.stVal	INC	INT32	ST	B					FAIL_COUNT	Total number of element failures	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr1PhsA.stVal	INC	INT32	ST	B					COUNT_BR1_A	Number of element failures in branch1 phase-A	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr2PhsA.stVal	INC	INT32	ST	B					COUNT_BR2_A	Number of element failures in branch2 phase-A	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr1PhsB.stVal	INC	INT32	ST	B					COUNT_BR1_B	Number of element failures in branch1 phase-B	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	

CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr2PhsB.stVal	INC	INT32	ST	B					COUNT_BR2_B	Number of element failures in branch2 phase-B	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr1PhsC.stVal	INC	INT32	ST	B					COUNT_BR1_C	Number of element failures in branch1 phase-C	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CntBr2PhsC.stVal	INC	INT32	ST	B					COUNT_BR2_C	Number of element failures in branch2 phase-C	0...2147483647	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.NatUnbCur.neut.cVal.mag.f	WYE	FLOAT32	MX	B					I_NAT_AMPL	Recorded natural unbalance current amplitude	0.00...5.00 xIn	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.NatUnbCur.neut.cVal.ang.f	WYE	FLOAT32	MX	B					I_NAT_ANGL	Recorded natural unbalance current angle	-179.00...179.00 deg	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CompUnbCur.neut.cVal.mag.f	WYE	FLOAT32	MX	B					I_COM_AMPL	Compensated unbalance current amplitude	0.00...5.00 xIn	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB1PTOC1.CompUnbCur.neut.cVal.ang.f	WYE	FLOAT32	MX	B					I_COM_ANGL	Compensated unbalance current angle	-179.00...179.00 deg	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	MON	LD0.CUB2PTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\CUBPTOC1\Monitored data	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Alarm start value	Alarm start value	0.01...1.00 xIn	Settings\Settings\Current protection\CUBPTOC1	IL1TCTR2
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	200000				Alarm delay time	Alarm delay time	50...200000 ms	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.FailCntLim.setVal	ING	INT32	SG	A	3				Element fail limit	Element failure limit above which alarm is active	1...100	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.NatCompEna.setVal	SPG	BOOLEAN	SG	A	0				Natural Comp enable	Enable natural unbalance compensation		Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.CubAlmMod.setVal	ENG	Enum	SG	B	1				Alarm mode	Mode of operation for Alarm stage	1=Normal; 2=Element counter	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB1PTOC1.FuLoct.setVal	ENG	Enum	SG	A	1				Fuse location	Location of capacitor fuse	1=Internal; 2=External	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.;	Settings\Settings\Current protection\CUBPTOC1	

															14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type		
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086 ...120.0000	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000 ...0.7120	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.01...1.00 xIn	Settings\Settings\Current protection\CUBPTOC1	IL1TCTR2
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	5000				Operate delay time	Operate delay time	50...200000 ms	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	SET	LD0.CUB2PTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\CUBPTOC1	
CUBPTOC1	dI>C(1)	51NC-1(1)	TES	LD0.CUB1PTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				CUBPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Current protection	
CUBPTOC1	dI>C(1)	51NC-1(1)	VER	LD0.CUB1PTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

HCUBPTOC1: Capacitor bank unbalance current, H bridge

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HCUBPTOC1	3dI>C(1)	51NC-2(1)	INP	LD0.HCUB1PTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\HCUBPTOC1\Inputs	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	OUT	LD0.HCUB1PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Current protection\HCUBPTOC1\Outputs	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	OUT	LD0.HCUB2PTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\HCUBPTOC1\Outputs	

HCUBPTOC1	3dI>C(1)	51NC-2(1)	OUT	LD0.HCUB2PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\HCUBPTOC1\Outputs	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	CTR	LD0.HCUB1PTOC1.UnbRcdPh.Oper.ctlVal	ENC	Enum	CO	B	0				Record unbalance	Record natural unbalance current	0=Do not record; 1=Record all phases; 2=Record phase A; 3=Record phase B; 4=Record phase C	Control\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.Beh.stVal	ENS	Enum	ST	B					HCUBPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_NAT_AMPL_A	Recorded natural unbalance current amplitude phase A	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsA.cVal.ang.f	WYE	FLOAT32	MX	B					I_NAT_ANGL_A	Recorded natural unbalance current angle phase A	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_NAT_AMPL_B	Recorded natural unbalance current amplitude phase B	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsB.cVal.ang.f	WYE	FLOAT32	MX	B					I_NAT_ANGL_B	Recorded natural unbalance current angle phase B	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_NAT_AMPL_C	Recorded natural unbalance current amplitude phase C	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.NatUnbCur.phsC.cVal.ang.f	WYE	FLOAT32	MX	B					I_NAT_ANGL_C	Recorded natural unbalance current angle phase C	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_COM_AMPL_A	Compensated unbalance current amplitude phase A	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsA.cVal.ang.f	WYE	FLOAT32	MX	B					I_COM_ANGL_A	Compensated unbalance current angle phase A	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_COM_AMPL_B	Compensated unbalance current amplitude phase B	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsB.cVal.ang.f	WYE	FLOAT32	MX	B					I_COM_ANGL_B	Compensated unbalance current angle phase B	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_COM_AMPL_C	Compensated unbalance current amplitude phase C	0.00...5.00 xIn	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	

HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB1PTOC1.CompUnbCur.phsC.cVal.ang.f	WYE	FLOAT32	MX	B					I_COM_ANGL_C	Compensated unbalance current angle phase C	-179.00...179.00 deg	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	MON	LD0.HCUB2PTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\HCUBPTOC1\Monitored data	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Alarm start value	Alarm start value	0.01...1.00 xIn	Settings\Settings\Current protection\HCUBPTOC1	IL1TCTR2
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	200000				Alarm delay time	Alarm delay time	40...200000 ms	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhsA.setVal	SPG	BOOLEAN	SG	ED2,A	0				Natural Comp Ena PhA	Enable natural unbalance compensation PhA		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhA.setVal	SPG	BOOLEAN	SG	ED1	0				Natural Comp Ena PhA	Enable natural unbalance compensation PhA		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhsB.setVal	SPG	BOOLEAN	SG	ED2,A	0				Natural Comp Ena PhB	Enable natural unbalance compensation PhB		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhB.setVal	SPG	BOOLEAN	SG	ED1	0				Natural Comp Ena PhB	Enable natural unbalance compensation PhB		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhsC.setVal	SPG	BOOLEAN	SG	ED2,A	0				Natural Comp Ena PhC	Enable natural unbalance compensation PhC		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB1PTOC1.CompEnaPhC.setVal	SPG	BOOLEAN	SG	ED1	0				Natural Comp Ena PhC	Enable natural unbalance compensation PhC		Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086 ...120.0000	Settings\Settings\Current protection\HCUBPTOC1	

HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000 ...0.7120	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.01...1.00 xIn	Settings\Settings\Current protection\HCUBPTOC1	IL1TCTR2
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	5000				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	SET	LD0.HCUB2PTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\HCUBPTOC1	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	TES	LD0.HCUB1PTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				HCUBPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Current protection	
HCUBPTOC1	3dI>C(1)	51NC-2(1)	VER	LD0.HCUB1PTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

SRCPTOC1: Capacitor resonance protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SRCPTOC1	TD>(1)	55TD(1)	INP	LD0.SRC1PTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\SRCPTOC1\Inputs	
SRCPTOC1	TD>(1)	55TD(1)	INP	LD0.SRC2PTOC1.InReso.stVal	SPS	BOOLEAN	ST	B	0				RESO_IN	Input signal from higher frequency resonance branch		Monitoring\I/O status\Current protection\SRCPTOC1\Inputs	
SRCPTOC1	TD>(1)	55TD(1)	OUT	LD0.SRC1PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Current protection\SRCPTOC1\Outputs	
SRCPTOC1	TD>(1)	55TD(1)	OUT	LD0.SRC2PTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate signal		Monitoring\I/O status\Current protection\SRCPTOC1\Outputs	
SRCPTOC1	TD>(1)	55TD(1)	MON	LD0.SRC1PTOC1.Beh.stVal	ENS	Enum	ST	B					SRCPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
SRCPTOC1	TD>(1)	55TD(1)	MON	LD0.SRC1PTOC1.ResoA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					I_RESO_A	Resonance current for phase A	0.00...40.00 xIn	Monitoring\I/O status\Current protection\SRCPTOC1\Monitored data	

SRCPTOC1	TD>(1)	55TD(1)	MON	LD0.SRC1PTOC1.ResoA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					I_RESO_B	Resonance current for phase B	0.00...40.00 xIn	Monitoring\I/O status\Current protection\SRCPTOC1\Monitored data	
SRCPTOC1	TD>(1)	55TD(1)	MON	LD0.SRC1PTOC1.ResoA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					I_RESO_C	Resonance current for phase C	0.00...40.00 xIn	Monitoring\I/O status\Current protection\SRCPTOC1\Monitored data	
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC1PTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\SRCPTOC1	
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC1PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.03				Alarm start value	Alarm limit for filtered harmonic currents	0.03...0.50 xIn	Settings\Settings\Current protection\SRCPTOC1	IL1TCTR1
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC1PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	200				Alarm delay time	Alarm delay time for resonance alarm	120...360000 ms	Settings\Settings\Current protection\SRCPTOC1	
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC1PTOC1.TunHNum.setVal	ING	INT32	SG	B	11				Tuning harmonic Num	Tuning frequency harmonic number of the filter branch	1...11	Settings\Settings\Current protection\SRCPTOC1	
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC2PTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.03				Start value	Tripping limit for filtered harmonic currents indicating resonance condition	0.03...0.50 xIn	Settings\Settings\Current protection\SRCPTOC1	IL1TCTR1
SRCPTOC1	TD>(1)	55TD(1)	SET	LD0.SRC2PTOC1.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate delay time	Operate delay time for resonance	120...360000 ms	Settings\Settings\Current protection\SRCPTOC1	
SRCPTOC1	TD>(1)	55TD(1)	TES	LD0.SRC1PTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	1				SRCPTOC1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Current protection	
SRCPTOC1	TD>(1)	55TD(1)	VER	LD0.SRC1PTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

DEFLPDEF1: Directional earth-fault, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DEFLPDEF1	Io>->(1)	67N-1(1)	INP	LD0.DEFLPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DEFLPDEF1\Inputs	
DEFLPDEF1	Io>->(1)	67N-1(1)	INP	LD0.DEFLPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DEFLPDEF1\Inputs	
DEFLPDEF1	Io>->(1)	67N-1(1)	INP	LD0.DEFLRDIR1.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\DEFLPDEF1\Inputs	
DEFLPDEF1	Io>->(1)	67N-1(1)	OUT	LD0.DEFLPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\DEFLPDEF1\Outputs	
DEFLPDEF1	Io>->(1)	67N-1(1)	OUT	LD0.DEFLPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\DEFLPDEF1\Outputs	
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLPTOC1.Beh.stVal	ENS	Enum	ST	B					DEFLPDEF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLPTOC1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	

DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLRDIR1.OpAEF.mag.f	MV	FLOAT32	MX	B					I_OPER	Calculated operating current	0.00...40.00 xIn	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	RESTCTR1
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLRDIR1.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	
DEFLPDEF1	Io>->(1)	67N-1(1)	MON	LD0.DEFLRDIR1.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFLPDEF1\Monitored data	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.010				Start value	Start value	0.010...5.000 xIn	Settings\Settings\Current protection\DEFLPDEF1	RESTCTR1
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	50				Minimum operate time	Minimum operate time for IDMT curves	50...60000 ms	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	50				Operate delay time	Operate delay time	50...200000 ms	Settings\Settings\Current protection\DEFLPDEF1	

DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.VStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Voltage start value	0.010...1.000 xUn	Settings\Settings\Current protection\DEFLPDEF1	RESTVTR1
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-dir when dir info is invalid		Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.EnaVLim.setVal	SPG	BOOLEAN	SG	A	1				Enable voltage limit	Enable voltage limit		Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLPTOC1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.005				Min operate current	Minimum operating current	0.005...1.000 xIn	Settings\Settings\Current protection\DEFLPDEF1	RESTCTR1
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DEFLPDEF1	RESTVTR1
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.PolQty.setVal	ENG	Enum	SP	A,I	3				Pol quantity	Reference quantity used to determine fault direction	3=Zero seq. volt.; 4=Neg. seq. volt.	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.OpModEF.setVal	ENG	Enum	SG	A	1				Operation mode	Operation criteria	1=Phase angle; 2=IoSin; 3=IoCos; 4=Phase angle 80; 5=Phase angle 88	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.CorAng.setMag.f	ASG	FLOAT32	SP	A	0.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\DEFLPDEF1	

DEFLPDEF1	Io>->(1)	67N-1(1)	SET	LD0.DEFLRDIR1.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\DEFLPDEF1	
DEFLPDEF1	Io>->(1)	67N-1(1)	TES	LD0.DEFLPTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DEFLPDEF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DEFLPDEF1	Io>->(1)	67N-1(1)	VER	LD0.DEFLPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

DEFLPDEF2: Directional earth-fault, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DEFLPDEF2	Io>->(2)	67N-1(2)	INP	LD0.DEFLPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DEFLPDEF2\Inputs	
DEFLPDEF2	Io>->(2)	67N-1(2)	INP	LD0.DEFLPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DEFLPDEF2\Inputs	
DEFLPDEF2	Io>->(2)	67N-1(2)	INP	LD0.DEFLRDIR2.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\DEFLPDEF2\Inputs	
DEFLPDEF2	Io>->(2)	67N-1(2)	OUT	LD0.DEFLPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\DEFLPDEF2\Outputs	
DEFLPDEF2	Io>->(2)	67N-1(2)	OUT	LD0.DEFLPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\DEFLPDEF2\Outputs	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLPTOC2.Beh.stVal	ENS	Enum	ST	B					DEFLPDEF2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLPTOC2.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLRDIR2.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLRDIR2.OpAEF.mag.f	MV	FLOAT32	MX	B					I_OPER	Calculated operating current	0.00...40.00 xIn	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	RESTCTR1
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLRDIR2.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	
DEFLPDEF2	Io>->(2)	67N-1(2)	MON	LD0.DEFLRDIR2.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFLPDEF2\Monitored data	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.;	Settings\Settings\Current protection\DEFLPDEF2	

															13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type		
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.010				Start value	Start value	0.010...5.000 xIn	Settings\Settings\Current protection\DEFLPDEF2	RESTCTR1
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	50				Minimum operate time	Minimum operate time for IDMT curves	50...60000 ms	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	50				Operate delay time	Operate delay time	50...200000 ms	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.VStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Voltage start value	0.010...1.000 xUn	Settings\Settings\Current protection\DEFLPDEF2	RESTVTR1
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-dir when dir info is invalid		Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DEFLPDEF2	

DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.EnaVLim.setVal	SPG	BOOLEAN	SG	A	1				Enable voltage limit	Enable voltage limit		Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLPTOC2.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.005				Min operate current	Minimum operating current	0.005...1.000 xIn	Settings\Settings\Current protection\DEFLPDEF2	RESTCTR1
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DEFLPDEF2	RESTVTR1
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.PolQty.setVal	ENG	Enum	SP	A,I	3				Pol quantity	Reference quantity used to determine fault direction	3=Zero seq. volt.; 4=Neg. seq. volt.	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.OpModEF.setVal	ENG	Enum	SG	A	1				Operation mode	Operation criteria	1=Phase angle; 2=IoSin; 3=IoCos; 4=Phase angle 80; 5=Phase angle 88	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.CorAng.setMag.f	ASG	FLOAT32	SP	A	0.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	SET	LD0.DEFLRDIR2.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\DEFLPDEF2	
DEFLPDEF2	Io>->(2)	67N-1(2)	TES	LD0.DEFLPTOC2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DEFLPDEF2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DEFLPDEF2	Io>->(2)	67N-1(2)	VER	LD0.DEFLPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

DEFHPDEF1: Directional earth-fault, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DEFHPDEF1	Io>>->(1)	67N-2(1)	INP	LD0.DEFHPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DEFHPDEF1\Inputs	
DEFHPDEF1	Io>>->(1)	67N-2(1)	INP	LD0.DEFHPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DEFHPDEF1\Inputs	

DEFHPDEF1	Io>>->(1)	67N-2(1)	INP	LD0.DEFHRDIR1.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\DEFHPDEF1\Inputs	
DEFHPDEF1	Io>>->(1)	67N-2(1)	OUT	LD0.DEFHPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\DEFHPDEF1\Outputs	
DEFHPDEF1	Io>>->(1)	67N-2(1)	OUT	LD0.DEFHPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\DEFHPDEF1\Outputs	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHPTOC1.Beh.stVal	ENS	Enum	ST	B					DEFHPDEF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHPTOC1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHRDIR1.OpAEF.mag.f	MV	FLOAT32	MX	B					I_OPER	Calculated operating current	0.00...40.00 xIn	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	RESTCTR1
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHRDIR1.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	
DEFHPDEF1	Io>>->(1)	67N-2(1)	MON	LD0.DEFHRDIR1.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DEFHPDEF1\Monitored data	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\DEFHPDEF1	RESTCTR1
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	40				Minimum operate time	Minimum operate time for IDMT curves	40...60000 ms	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DEFHPDEF1	

DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.VStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Voltage start value	0.010...1.000 xUn	Settings\Settings\Current protection\DEFHPDEF1	RESTVTR1
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-dir when dir info is invalid		Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.EnaVLim.setVal	SPG	BOOLEAN	SG	A	1				Enable voltage limit	Enable voltage limit		Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHPTOC1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...180 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...180 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.005				Min operate current	Minimum operating current	0.005...1.000 xIn	Settings\Settings\Current protection\DEFHPDEF1	RESTCTR1
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DEFHPDEF1	RESTVTR1
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.PolQty.setVal	ENG	Enum	SP	A,I	3				Pol quantity	Reference quantity used to determine fault direction	3=Zero seq. volt.; 4=Neg. seq. volt.	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.OpModEF.setVal	ENG	Enum	SG	A	1				Operation mode	Operation criteria	1=Phase angle; 2=IoSin; 3=IoCos; 4=Phase angle 80; 5=Phase angle 88	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.CorAng.setMag.f	ASG	FLOAT32	SP	A	0.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	SET	LD0.DEFHRDIR1.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\DEFHPDEF1	
DEFHPDEF1	Io>>->(1)	67N-2(1)	TES	LD0.DEFHPTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DEFHPDEF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DEFHPDEF1	Io>>->(1)	67N-2(1)	VER	LD0.DEFHPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

ROVPTOV1: Residual overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ROVPTOV1	Uo>(1)	59G(1)	INP	LD0.ROVPTOV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\ROVPTOV1\Inputs	
ROVPTOV1	Uo>(1)	59G(1)	OUT	LD0.ROVPTOV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\ROVPTOV1\Outputs	
ROVPTOV1	Uo>(1)	59G(1)	OUT	LD0.ROVPTOV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\ROVPTOV1\Outputs	
ROVPTOV1	Uo>(1)	59G(1)	MON	LD0.ROVPTOV1.Beh.stVal	ENS	Enum	ST	B					ROVPTOV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ROVPTOV1	Uo>(1)	59G(1)	MON	LD0.ROVPTOV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\ROVPTOV1\Monitored data	
ROVPTOV1	Uo>(1)	59G(1)	SET	LD0.ROVPTOV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\ROVPTOV1	
ROVPTOV1	Uo>(1)	59G(1)	SET	LD0.ROVPTOV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.030				Start value	Residual overvoltage start value	0.010...1.000 xUn	Settings\Settings\Voltage protection\ROVPTOV1	RESTVTR1
ROVPTOV1	Uo>(1)	59G(1)	SET	LD0.ROVPTOV1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\ROVPTOV1	
ROVPTOV1	Uo>(1)	59G(1)	SET	LD0.ROVPTOV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\ROVPTOV1	
ROVPTOV1	Uo>(1)	59G(1)	SET	LD0.ROVPTOV1.VResSigSel.setVal	ENG	Enum	SP	B,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Voltage protection\ROVPTOV1	
ROVPTOV1	Uo>(1)	59G(1)	TES	LD0.ROVPTOV1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ROVPTOV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
ROVPTOV1	Uo>(1)	59G(1)	VER	LD0.ROVPTOV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

ROVPTOV2: Residual overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ROVPTOV2	Uo>(2)	59G(2)	INP	LD0.ROVPTOV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\ROVPTOV2\Inputs	
ROVPTOV2	Uo>(2)	59G(2)	OUT	LD0.ROVPTOV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\ROVPTOV2\Outputs	
ROVPTOV2	Uo>(2)	59G(2)	OUT	LD0.ROVPTOV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\ROVPTOV2\Outputs	
ROVPTOV2	Uo>(2)	59G(2)	MON	LD0.ROVPTOV2.Beh.stVal	ENS	Enum	ST	B					ROVPTOV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ROVPTOV2	Uo>(2)	59G(2)	MON	LD0.ROVPTOV2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\ROVPTOV2\Monitored data	
ROVPTOV2	Uo>(2)	59G(2)	SET	LD0.ROVPTOV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\ROVPTOV2	

ROVPTOV2	Uo>(2)	59G(2)	SET	LD0.ROVPTOV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.030				Start value	Residual overvoltage start value	0.010...1.000 xUn	Settings\Settings\Voltage protection\ROVPTOV2	RESTVTR1
ROVPTOV2	Uo>(2)	59G(2)	SET	LD0.ROVPTOV2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\ROVPTOV2	
ROVPTOV2	Uo>(2)	59G(2)	SET	LD0.ROVPTOV2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\ROVPTOV2	
ROVPTOV2	Uo>(2)	59G(2)	SET	LD0.ROVPTOV2.VResSigSel.setVal	ENG	Enum	SP	B,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Voltage protection\ROVPTOV2	
ROVPTOV2	Uo>(2)	59G(2)	TES	LD0.ROVPTOV2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ROVPTOV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
ROVPTOV2	Uo>(2)	59G(2)	VER	LD0.ROVPTOV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PSPTUV1: Positive sequence undervoltage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PSPTUV1	U1<(1)	47U+(1)	INP	LD0.PSPTUV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PSPTUV1\Inputs	
PSPTUV1	U1<(1)	47U+(1)	OUT	LD0.PSPTUV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\PSPTUV1\Outputs	
PSPTUV1	U1<(1)	47U+(1)	OUT	LD0.PSPTUV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\PSPTUV1\Outputs	
PSPTUV1	U1<(1)	47U+(1)	MON	LD0.PSPTUV1.Beh.stVal	ENS	Enum	ST	B					PSPTUV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PSPTUV1	U1<(1)	47U+(1)	MON	LD0.PSPTUV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PSPTUV1\Monitored data	
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PSPTUV1	
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.500				Start value	Start value	0.010...1.200 xUn	Settings\Settings\Voltage protection\PSPTUV1	UL1TVTR1
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...120000 ms	Settings\Settings\Voltage protection\PSPTUV1	
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PSPTUV1	
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.BlkVal.setMag.f	ASG	FLOAT32	SG	A	0.20				Voltage block value	Internal blocking level	0.01...1.00 xUn	Settings\Settings\Voltage protection\PSPTUV1	UL1TVTR1
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.EnaBlkVal.setVal	SPG	BOOLEAN	SG	A	1				Enable block value	Enable Internal Blocking		Settings\Settings\Voltage protection\PSPTUV1	
PSPTUV1	U1<(1)	47U+(1)	SET	LD0.PSPTUV1.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PSPTUV1	
PSPTUV1	U1<(1)	47U+(1)	TES	LD0.PSPTUV1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PSPTUV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PSPTUV1	U1<(1)	47U+(1)	VER	LD0.PSPTUV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PSPTUV2: Positive sequence undervoltage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PSPTUV2	U1<(2)	47U+(2)	INP	LD0.PSPTUV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\PSPTUV2\Inputs	
PSPTUV2	U1<(2)	47U+(2)	OUT	LD0.PSPTUV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\PSPTUV2\Outputs	IL1TCTR1
PSPTUV2	U1<(2)	47U+(2)	OUT	LD0.PSPTUV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\PSPTUV2\Outputs	IL1TCTR1
PSPTUV2	U1<(2)	47U+(2)	MON	LD0.PSPTUV2.Beh.stVal	ENS	Enum	ST	B					PSPTUV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PSPTUV2	U1<(2)	47U+(2)	MON	LD0.PSPTUV2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\PSPTUV2\Monitored data	
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\PSPTUV2	
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.500				Start value	Start value	0.010...1.200 xUn	Settings\Settings\Voltage protection\PSPTUV2	UL1TVTR1
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...120000 ms	Settings\Settings\Voltage protection\PSPTUV2	
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\PSPTUV2	
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.BlkVal.setMag.f	ASG	FLOAT32	SG	A	0.20				Voltage block value	Internal blocking level	0.01...1.00 xUn	Settings\Settings\Voltage protection\PSPTUV2	UL1TVTR1
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.EnaBlkVal.setVal	SPG	BOOLEAN	SG	A	1				Enable block value	Enable Internal Blocking		Settings\Settings\Voltage protection\PSPTUV2	
PSPTUV2	U1<(2)	47U+(2)	SET	LD0.PSPTUV2.HysRl.setMag.f	ASG	FLOAT32	SP	A,I	4.0				Relative hysteresis	Relative hysteresis for operation	1.0...5.0 %	Settings\Settings\Voltage protection\PSPTUV2	
PSPTUV2	U1<(2)	47U+(2)	TES	LD0.PSPTUV2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PSPTUV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
PSPTUV2	U1<(2)	47U+(2)	VER	LD0.PSPTUV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

NSPTOV1: Negative sequence overvoltage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
NSPTOV1	U2>(1)	47O-(1)	INP	LD0.NSPTOV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\NSPTOV1\Inputs	
NSPTOV1	U2>(1)	47O-(1)	OUT	LD0.NSPTOV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\NSPTOV1\Outputs	
NSPTOV1	U2>(1)	47O-(1)	OUT	LD0.NSPTOV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\NSPTOV1\Outputs	

NSPTOV1	U2>(1)	47O-(1)	MON	LD0.NSPTOV1.Beh.stVal	ENS	Enum	ST	B					NSPTOV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
NSPTOV1	U2>(1)	47O-(1)	MON	LD0.NSPTOV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\NSPTOV1\Monitored data	
NSPTOV1	U2>(1)	47O-(1)	SET	LD0.NSPTOV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\NSPTOV1	
NSPTOV1	U2>(1)	47O-(1)	SET	LD0.NSPTOV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.030				Start value	Start value	0.010...1.000 xUn	Settings\Settings\Voltage protection\NSPTOV1	UL1TVTR1
NSPTOV1	U2>(1)	47O-(1)	SET	LD0.NSPTOV1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...120000 ms	Settings\Settings\Voltage protection\NSPTOV1	
NSPTOV1	U2>(1)	47O-(1)	SET	LD0.NSPTOV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\NSPTOV1	
NSPTOV1	U2>(1)	47O-(1)	TES	LD0.NSPTOV1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				NSPTOV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
NSPTOV1	U2>(1)	47O-(1)	VER	LD0.NSPTOV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

NSPTOV2: Negative sequence overvoltage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
NSPTOV2	U2>(2)	47O-(2)	INP	LD0.NSPTOV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\NSPTOV2\Inputs	
NSPTOV2	U2>(2)	47O-(2)	OUT	LD0.NSPTOV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\NSPTOV2\Outputs	
NSPTOV2	U2>(2)	47O-(2)	OUT	LD0.NSPTOV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\NSPTOV2\Outputs	
NSPTOV2	U2>(2)	47O-(2)	MON	LD0.NSPTOV2.Beh.stVal	ENS	Enum	ST	B					NSPTOV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
NSPTOV2	U2>(2)	47O-(2)	MON	LD0.NSPTOV2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\NSPTOV2\Monitored data	
NSPTOV2	U2>(2)	47O-(2)	SET	LD0.NSPTOV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\NSPTOV2	
NSPTOV2	U2>(2)	47O-(2)	SET	LD0.NSPTOV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.030				Start value	Start value	0.010...1.000 xUn	Settings\Settings\Voltage protection\NSPTOV2	UL1TVTR1
NSPTOV2	U2>(2)	47O-(2)	SET	LD0.NSPTOV2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...120000 ms	Settings\Settings\Voltage protection\NSPTOV2	
NSPTOV2	U2>(2)	47O-(2)	SET	LD0.NSPTOV2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\NSPTOV2	
NSPTOV2	U2>(2)	47O-(2)	TES	LD0.NSPTOV2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				NSPTOV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
NSPTOV2	U2>(2)	47O-(2)	VER	LD0.NSPTOV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

FRPFRQ1: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ1	f>/f	81(1)	INP	LD0.FRPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ1\Inputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTRC1.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTRC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTOF1.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTOF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTUF1.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPTUF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPFRC1.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	OUT	LD0.FRPFRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ1\Outputs	
FRPFRQ1	f>/f	81(1)	MON	LD0.FRPTRC1.Beh.stVal	ENS	Enum	ST	B					FRPFRQ1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ1	f>/f	81(1)	MON	LD0.FRPTRC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ1\Monitored data	
FRPFRQ1	f>/f	81(1)	MON	LD0.FRPTOF1.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ1\Monitored data	
FRPFRQ1	f>/f	81(1)	MON	LD0.FRPTUF1.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ1\Monitored data	
FRPFRQ1	f>/f	81(1)	MON	LD0.FRPFRC1.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ1\Monitored data	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTRC1.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTOF1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTOF1.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTOF1.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPTUF1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ1	

FRPFRQ1	f>/f	81(1)	SET	LD0.FRPFRC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPFRC1.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	SET	LD0.FRPFRC1.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ1	
FRPFRQ1	f>/f	81(1)	TES	LD0.FRPTRC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ; 70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG	Tests\Function tests\Frequency protection	
FRPFRQ1	f>/f	81(1)	VER	LD0.FRPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

FRPFRQ2: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ2	f>/f	81(2)	INP	LD0.FRPTRC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ2\Inputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTRC2.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTRC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTOF2.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTOF2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTUF2.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPTUF2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPFRC2.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	OUT	LD0.FRPFRC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ2\Outputs	
FRPFRQ2	f>/f	81(2)	MON	LD0.FRPTRC2.Beh.stVal	ENS	Enum	ST	B					FRPFRQ2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ2	f>/f	81(2)	MON	LD0.FRPTRC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ2\Monitored data	
FRPFRQ2	f>/f	81(2)	MON	LD0.FRPTOF2.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ2\Monitored data	
FRPFRQ2	f>/f	81(2)	MON	LD0.FRPTUF2.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ2\Monitored data	

FRPFRQ2	f>/f	81(2)	MON	LD0.FRPFRC2.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ2\Monitored data	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTRC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTRC2.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTOF2.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTOF2.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTOF2.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPTUF2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPFRC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPFRC2.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	SET	LD0.FRPFRC2.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ2	
FRPFRQ2	f>/f	81(2)	TES	LD0.FRPTRC2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ; 70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG	Tests\Function tests\Frequency protection	
FRPFRQ2	f>/f	81(2)	VER	LD0.FRPTRC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

FRPFRQ3: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ3	f>/f	81(3)	INP	LD0.FRPTRC3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ3\Inputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTRC3.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTRC3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTOF3.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTOF3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	

FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTUF3.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPTUF3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPFRC3.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	OUT	LD0.FRPFRC3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ3\Outputs	
FRPFRQ3	f>/f	81(3)	MON	LD0.FRPTRC3.Beh.stVal	ENS	Enum	ST	B					FRPFRQ3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ3	f>/f	81(3)	MON	LD0.FRPTRC3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ3\Monitored data	
FRPFRQ3	f>/f	81(3)	MON	LD0.FRPTOF3.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ3\Monitored data	
FRPFRQ3	f>/f	81(3)	MON	LD0.FRPTUF3.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ3\Monitored data	
FRPFRQ3	f>/f	81(3)	MON	LD0.FRPFRC3.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ3\Monitored data	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTRC3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTRC3.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTOF3.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTOF3.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTOF3.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPTUF3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPFRC3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPFRC3.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	SET	LD0.FRPFRC3.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ3	
FRPFRQ3	f>/f	81(3)	TES	LD0.FRPTRC3.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ; 70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG	Tests\Function tests\Frequency protection	
FRPFRQ3	f>/f	81(3)	VER	LD0.FRPTRC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

FRPFRQ4: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ4	f>/f	81(4)	INP	LD0.FRPTRC4.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ4\Inputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTRC4.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTRC4.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTOF4.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTOF4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTUF4.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPTUF4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPFRC4.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	OUT	LD0.FRPFRC4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ4\Outputs	
FRPFRQ4	f>/f	81(4)	MON	LD0.FRPTRC4.Beh.stVal	ENS	Enum	ST	B					FRPFRQ4	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ4	f>/f	81(4)	MON	LD0.FRPTRC4.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ4\Monitored data	
FRPFRQ4	f>/f	81(4)	MON	LD0.FRPTOF4.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ4\Monitored data	
FRPFRQ4	f>/f	81(4)	MON	LD0.FRPTUF4.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ4\Monitored data	
FRPFRQ4	f>/f	81(4)	MON	LD0.FRPFRC4.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ4\Monitored data	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTRC4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTRC4.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTOF4.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTOF4.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTOF4.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPTUF4.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ4	

FRPFRQ4	f>/f	81(4)	SET	LD0.FRPFRC4.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPFRC4.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	SET	LD0.FRPFRC4.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ4	
FRPFRQ4	f>/f	81(4)	TES	LD0.FRPTRC4.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ4	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ; 70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG	Tests\Function tests\Frequency protection	
FRPFRQ4	f>/f	81(4)	VER	LD0.FRPTRC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

DOPPDPR1: Reverse power / Directional over power protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DOPPDPR1	P>/Q>(1)	32R/32O(1)	INP	LD0.DPPDOP1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DOPPDPR1\Inputs	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	OUT	LD0.DPPDOP1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DOPPDPR1\Outputs	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	OUT	LD0.DPPDOP1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DOPPDPR1\Outputs	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DPPDOP1.Beh.stVal	ENS	Enum	ST	B					DOPPDPR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DPPDOP1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DOPPDPR1\Monitored data	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DOPMMXU1.TotW.mag.f	MV	FLOAT32	MX	B					P	Active power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR1\Monitored data	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DOPMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR1\Monitored data	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DOPMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B					S	Apparent power	0.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR1\Monitored data	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	MON	LD0.DOPMMXU1.TotPFAng.mag.f	MV	FLOAT32	MX	B					PF_ANGLE	Power factor angle	-180.00...180.00 deg	Monitoring\I/O status\Power protection\DOPPDPR1\Monitored data	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value	Start value	0.01...2.00 xSn	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Power protection\DOPPDPR1	

DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.PwrMeasMod.setVal	ENG	Enum	SP	B	3				Measurement mode	Selection of power calculation method	1=PhsA, PhsB, PhsC; 2=Arone; 3=Pos Seq; 4=PhsAB; 5=PhsBC; 6=PhsCA; 7=PhsA; 8=PhsB; 9=PhsC	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the power direction		Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	SET	LD0.DPPDOP1.PwrAng.setMag.f	ASG	FLOAT32	SG	B	0				Power angle	Adjustable angle for power	-90...90 deg	Settings\Settings\Power protection\DOPPDPR1	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	TES	LD0.DPPDOP1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DOPPDPR1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DOPPDPR1	P>/Q>(1)	32R/32O(1)	VER	LD0.DPPDOP1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

DOPPDPR2: Reverse power / Directional over power protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DOPPDPR2	P>/Q>(2)	32R/32O(2)	INP	LD0.DPPDOP2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DOPPDPR2\Inputs	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	OUT	LD0.DPPDOP2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DOPPDPR2\Outputs	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	OUT	LD0.DPPDOP2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DOPPDPR2\Outputs	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DPPDOP2.Beh.stVal	ENS	Enum	ST	B					DOPPDPR2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DPPDOP2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DOPPDPR2\Monitored data	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DOPMMXU2.TotW.mag.f	MV	FLOAT32	MX	B					P	Active power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR2\Monitored data	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DOPMMXU2.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR2\Monitored data	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DOPMMXU2.TotVA.mag.f	MV	FLOAT32	MX	B					S	Apparent power	0.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR2\Monitored data	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	MON	LD0.DOPMMXU2.TotPFAng.mag.f	MV	FLOAT32	MX	B					PF_ANGLE	Power factor angle	-180.00...180.00 deg	Monitoring\I/O status\Power protection\DOPPDPR2\Monitored data	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value	Start value	0.01...2.00 xSn	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Power protection\DOPPDPR2	

DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.PwrMeasMod.setVal	ENG	Enum	SP	B	3				Measurement mode	Selection of power calculation method	1=PhsA, PhsB, PhsC; 2=Arone; 3=Pos Seq; 4=PhsAB; 5=PhsBC; 6=PhsCA; 7=PhsA; 8=PhsB; 9=PhsC	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the power direction		Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	SET	LD0.DPPDOP2.PwrAng.setMag.f	ASG	FLOAT32	SG	B	0				Power angle	Adjustable angle for power	-90...90 deg	Settings\Settings\Power protection\DOPPDPR2	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	TES	LD0.DPPDOP2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DOPPDPR2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DOPPDPR2	P>/Q>(2)	32R/32O(2)	VER	LD0.DPPDOP2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

SEQSPVC1: Fuse failure supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SEQSPVC1	FUSEF(1)	60(1)	INP	LD0.SEQSPVC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Inputs	
SEQSPVC1	FUSEF(1)	60(1)	INP	LD0.SEQSPVC1.InPosCls.stVal	SPS	BOOLEAN	ST	B	0				CB_CLOSED	Active when circuit breaker is closed		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Inputs	
SEQSPVC1	FUSEF(1)	60(1)	INP	LD0.SEQSPVC1.InDCPosOpn.stVal	SPS	BOOLEAN	ST	B	0				DISCON_OPEN	Active when line disconnector is open		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Inputs	
SEQSPVC1	FUSEF(1)	60(1)	INP	LD0.SEQSPVC1.InMCBPsOpn.stVal	SPS	BOOLEAN	ST	B	0				MINCB_OPEN	Active when external MCB opens protected voltage circuit		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Inputs	
SEQSPVC1	FUSEF(1)	60(1)	OUT	LD0.SEQSPVC1.Str.general	ACD	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	FUSEF_U	General start of function		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Outputs	
SEQSPVC1	FUSEF(1)	60(1)	OUT	LD0.SEQSPVC1.Str3Ph.general	ACD	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	FUSEF_3PH	Three-phase start of function		Monitoring\I/O status\Condition monitoring\SEQSPVC1\Outputs	
SEQSPVC1	FUSEF(1)	60(1)	MON	LD0.SEQSPVC1.Beh.stVal	ENS	Enum	ST	B					SEQSPVC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\SEQSPVC1	
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.10				Min Op current delta	Minimum operate level of phase current for delta calculation	0.01...1.00 xIn	Configuration\Condition monitoring\SEQSPVC1	IL1TCTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.NgSeqLevA.setMag.f	ASG	FLOAT32	SP	A	0.03				Neg Seq current Lev	Operate level of neg seq undercurrent element	0.03...0.20 xIn	Configuration\Condition monitoring\SEQSPVC1	IL1TCTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.ChgRteA.setMag.f	ASG	FLOAT32	SP	A	0.15				Current change rate	Operate level of change in phase current	0.01...0.50 xIn	Configuration\Condition monitoring\SEQSPVC1	IL1TCTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.ChgRteEna.setVal	SPG	BOOLEAN	SP	A	0				Change rate enable	Enabling operation of change based function		Configuration\Condition monitoring\SEQSPVC1	
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.ChgRteV.setMag.f	ASG	FLOAT32	SP	A	0.40				Voltage change rate	Operate level of change in phase voltage	0.25...0.90 xUn	Configuration\Condition monitoring\SEQSPVC1	UL1TVTR1

SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.EnaSealIn.setVal	SPG	BOOLEAN	SP	A	0				Enable seal in	Enabling seal in functionality		Configuration\Condition monitoring\SEQSPVC1	
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.50				Min Op voltage delta	Minimum operate level of phase voltage for delta calculation	0.01...1.00 xUn	Configuration\Condition monitoring\SEQSPVC1	UL1TVTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.SealInV.setMag.f	ASG	FLOAT32	SP	A	0.50				Seal in voltage	Operate level of seal-in phase voltage	0.01...1.00 xUn	Configuration\Condition monitoring\SEQSPVC1	UL1TVTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.NgSeqLevV.setMag.f	ASG	FLOAT32	SP	A	0.10				Neg Seq voltage Lev	Operate level of neg seq overvoltage element	0.03...0.20 xUn	Configuration\Condition monitoring\SEQSPVC1	UL1TVTR1
SEQSPVC1	FUSEF(1)	60(1)	CFG	LD0.SEQSPVC1.DeaLinValA.setMag.f	ASG	FLOAT32	SP	A	0.05				Current dead Lin Val	Operate level for open phase current detection	0.05...1.00 xIn	Configuration\Condition monitoring\SEQSPVC1	IL1TCTR1
SEQSPVC1	FUSEF(1)	60(1)	TES	LD0.SEQSPVC1.TestSpvn.Oper.ctlVal	ENC	Enum	CO	B	0				SEQSPVC1	Test control for outputs	0=Reset; 43=Activate FUSEF_3PH; 44=Deactive FUSEF_3PH; 45=Activate FUSEF_U; 46=Deactive FUSEF_U	Tests\Function tests\Condition monitoring	
SEQSPVC1	FUSEF(1)	60(1)	VER	LD0.SEQSPVC1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

RESVMMXU1: Residual voltage measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
RESVMMXU1	Uo(1)	Vn(1)	INP	LD0.RESVMMXU1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\RESVMMXU1\Inputs	
RESVMMXU1	Uo(1)	Vn(1)	OUT	LD0.RESVMMXU1.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\RESVMMXU1\Outputs	
RESVMMXU1	Uo(1)	Vn(1)	OUT	LD0.RESVMMXU1.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\RESVMMXU1\Outputs	
RESVMMXU1	Uo(1)	Vn(1)	CTR	LD0.RESVMMXU1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(RESVMMXU1 demands)			
RESVMMXU1	Uo(1)	Vn(1)	MON	LD0.RESVMMXU1.PhV.res.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	Uo-kV	Measured residual voltage	0.00...4.00 xUn	Measurements\RESVMMXU1	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	MON	LD0.RESVMMXU1.PhV.res.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_RES	Residual voltage angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\RESVMMXU1\Monitored data	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	MON	LD0.RESVMMXU1.PhV.res.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_DB_RES	Residual voltage Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\RESVMMXU1\Monitored data	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	MON	LD0.RESVMMXU1.PhV.res.range	WYE	Enum	MX	B		MeasFlt	P		U_RANGE_RES	Residual voltage Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\RESVMMXU1\Monitored data	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	MON	LD0.RVAVMMXU1.PhV.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_RES	Demand value of residual voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\RESVMMXU1\Monitored data	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	CFG	LD0.RESVMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\RESVMMXU1	
RESVMMXU1	Uo(1)	Vn(1)	CFG	LD0.RESVMMXU1.PhV.res.db	WYE	INT32U	CF	B,I	10000				V deadband res	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\RESVMMXU1	RESTVTR1

RESVMMXU1	Uo(1)	Vn(1)	CFG	LD0.RESVMMXU1.PhV.res.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	0.20				V Hi high limit res	High alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\RESVMMXU1	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	CFG	LD0.RESVMMXU1.PhV.res.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	0.05				V high limit res	High warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\RESVMMXU1	RESTVTR1
RESVMMXU1	Uo(1)	Vn(1)	CFG	LD0.RESVMMXU1.VMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\RESVMMXU1	
RESVMMXU1	Uo(1)	Vn(1)	VER	LD0.RESVMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

FMMXU1: Frequency measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FMMXU1	f(1)	f(1)	MON	LD0.FMMXU1.Hz.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	f-Hz	Measured frequency	35.00...75.00 Hz	Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	MON	LD0.FMMXU1.Hz.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		F_DB	Frequency, reported value	35.00...75.00 Hz	Monitoring\I/O status\Measurements\FMMXU1\Monitored data	
FMMXU1	f(1)	f(1)	MON	LD0.FMMXU1.Hz.range	MV	Enum	MX	B		MeasFlt	P		F_RANGE	Measured frequency range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\FMMXU1\Monitored data	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Hz.db	MV	INT32U	CF	B,I	1000				F deadband	Deadband configuration value for integral calculation (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Hz.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	60.00				F high high limit	High alarm frequency limit	35.00...75.00 Hz	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Hz.rangeC.hLim.f	MV	FLOAT32	CF	B,I	55.00				F high limit	High warning frequency limit	35.00...75.00 Hz	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Hz.rangeC.lLim.f	MV	FLOAT32	CF	B,I	45.00				F low limit	Low warning frequency limit	35.00...75.00 Hz	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.Hz.rangeC.llLim.f	MV	FLOAT32	CF	B,I	40.00				F low low limit	Low alarm frequency limit	35.00...75.00 Hz	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	CFG	LD0.FMMXU1.DefHzSel.setVal	ENG	Enum	SP	A,I	1				Def frequency Sel	Default frequency selection	1=Nominal; 2=Zero	Configuration\Measurements\FMMXU1	
FMMXU1	f(1)	f(1)	VER	LD0.FMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

PEMMXU1: Three-phase power and energy measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PEMMXU1	P,E(1)	P,E(1)	INP	LD0.PEMMTR1.SupDmdRs.stVal	SPC	BOOLEAN	ST	B	0				RSTACM	Reset of accumulated energy reading		Monitoring\I/O status\Measurements\PEMMXU1\Inputs	
PEMMXU1	P,E(1)	P,E(1)	CTR	LD0.PEMMXU1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(PEMMXU1 demands)			
PEMMXU1	P,E(1)	P,E(1)	CTR	LD0.PEMMTR1.SupDmdRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	PEMMXU1 acc.energy	Reset of accumulated energy reading	0=Cancel; 1=Clear	Clear\Clear	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotW.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	P-kW	Total Active Power	-999999.9...999999.9 kW	Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotW.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		P_DB	Active power, magnitude of reported value	-999999.9...999999.9 kW	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	

PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotVAr.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	Q-kVAr	Total Reactive Power	-999999.9...999999.9 kVAr	Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		Q_DB	Reactive power, magnitude of reported value	-999999.9...999999.9 kVAr	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotVA.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	S-kVA	Total Apparent Power	-999999.9...999999.9 kVA	Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		S_DB	Apparent power, magnitude of reported value	-999999.9...999999.9 kVA	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotPF.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	PF	Average Power factor	-1.00...1.00	Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMXU1.TotPF.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		PF_DB	Power factor, magnitude of reported value	-1.00...1.00	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMTR1.SupWh.actVal	BCR	INT64	ST	B				MB,DN,I3	EA_RV_ACM	Accumulated reverse active energy value	0...999999999 kWh	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMTR1.SupVArh.actVal	BCR	INT64	ST	B				MB,DN,I3	ER_RV_ACM	Accumulated reverse reactive energy value	0...999999999 kVArh	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMTR1.DmdWh.actVal	BCR	INT64	ST	B				MB,DN,I3	EA_FWD_ACM	Accumulated forward active energy value	0...999999999 kWh	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMMTR1.DmdVArh.actVal	BCR	INT64	ST	B				MB,DN,I3	ER_FWD_ACM	Accumulated forward reactive energy value	0...999999999 kVArh	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEAVMMXU1.TotW.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	P_DMD	Demand value of active power	-999999.9...999999.9 kW	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEAVMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Q_DMD	Demand value of reactive power	-999999.9...999999.9 kVAr	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEAVMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	S_DMD	Demand value of apparent power	-999999.9...999999.9 kVA	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEAVMMXU1.TotPF.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	PF_DMD	Demand value of power factor	-1.00...1.00	Monitoring\I/O status\Measurements\PEMMXU1\Monitored data	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotW.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Max demand P	Maximum demand value of active power	-999999.9...999999.9 kW	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotW.t	MV	Timestamp	MX	B					Time max dmd P	Time of maximum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Max demand Q	Maximum demand value of reactive power	-999999.9...999999.9 kVAr	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotVAr.t	MV	Timestamp	MX	B					Time max dmd Q	Time of maximum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Max demand S	Maximum demand value of apparent power	-999999.9...999999.9 kVA	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMAMMXU1.TotVA.t	MV	Timestamp	MX	B					Time max dmd S	Time of maximum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotW.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Min demand P	Minimum demand value of active power	-999999.9...999999.9 kW	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotW.t	MV	Timestamp	MX	B					Time min dmd P	Time of minimum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Min demand Q	Minimum demand value of reactive power	-999999.9...999999.9 kVAr	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotVAr.t	MV	Timestamp	MX	B					Time min dmd Q	Time of minimum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Min demand S	Minimum demand value of apparent power	-999999.9...999999.9 kVA	Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	MON	LD0.PEMIMMXU1.TotVA.t	MV	Timestamp	MX	B					Time min dmd S	Time of minimum demand		Monitoring\Recorded data\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMXU1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\PEMMXU1	

PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMXU1.TotW.units.multiplier	MV	Enum	CF	B,I	3				Power unit Mult	Unit multiplier for presentation of the power related values	3=Kilo; 6=Mega	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMXU1.WhDir.setVal	ENG	Enum	SP	B	1				Active power Dir	Direction of active power flow: Forward, Reverse	1=Forward; 2=Reverse	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMXU1.VArhDir.setVal	ENG	Enum	SP	B	1				Reactive power Dir	Direction of reactive power flow: Forward, Reverse	1=Forward; 2=Reverse	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMTR1.SupWh.units.multiplier	BCR	Enum	CF	B,I	3				Energy unit Mult	Unit multiplier for presentation of the energy related values	3=Kilo; 6=Mega	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMTR1.IniDmdWh.setVal	ING	INT32	SP	A	0				Forward Wh Initial	Preset Initial value for forward active energy	0...999999999	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMTR1.IniSupWh.setVal	ING	INT32	SP	A	0				Reverse Wh Initial	Preset Initial value for reverse active energy	0...999999999	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMTR1.IniDmdVArh.setVal	ING	INT32	SP	A	0				Forward VArh Initial	Preset Initial value for forward reactive energy	0...999999999	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	CFG	LD0.PEMMTR1.IniSupVArh.setVal	ING	INT32	SP	A	0				Reverse VArh Initial	Preset Initial value for reverse reactive energy	0...999999999	Configuration\Measurements\PEMMXU1	
PEMMXU1	P,E(1)	P,E(1)	VER	LD0.PEMMXU1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

T1PTTR1: Thermal overload protection, one time constant

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
T1PTTR1	3Ith>F(1)	49F(1)	INP	LD0.T1PTTR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLK_OPR	Block signal for operate outputs		Monitoring\I/O status\Current protection\T1PTTR1\Inputs	
T1PTTR1	3Ith>F(1)	49F(1)	INP	LD0.T1PTTR1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable Current multiplier		Monitoring\I/O status\Current protection\T1PTTR1\Inputs	
T1PTTR1	3Ith>F(1)	49F(1)	INP	LD0.T1PTTR1.TmpAmb.mag.f	MV	FLOAT32	MX	B	0				AMB_TEMP	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\T1PTTR1\Inputs	
T1PTTR1	3Ith>F(1)	49F(1)	OUT	LD0.T1PTTR1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\T1PTTR1\Outputs	
T1PTTR1	3Ith>F(1)	49F(1)	OUT	LD0.T1PTTR1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\T1PTTR1\Outputs	
T1PTTR1	3Ith>F(1)	49F(1)	OUT	LD0.T1PTTR1.AlmThm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Thermal Alarm		Monitoring\I/O status\Current protection\T1PTTR1\Outputs	
T1PTTR1	3Ith>F(1)	49F(1)	OUT	LD0.T1PTTR1.BlkThm.stVal	SPS	BOOLEAN	ST	B					BLK_CLOSE	Thermal overload indicator. To inhibite reclose.		Monitoring\I/O status\Current protection\T1PTTR1\Outputs	
T1PTTR1	3Ith>F(1)	49F(1)	CTR	LD0.T1PTTR1.RsTmp.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				T1PTTR1 temperature	Reset T1PTTR1 tempetature	0=Cancel; 1=Clear	Clear\Clear	
T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.Beh.stVal	ENS	Enum	ST	B					T1PTTR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.Tmp.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	TEMP	The calculated temperature of the protected object	-100.0...9999.9 °C	Monitoring\I/O status\Current protection\T1PTTR1\Monitored data	
T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.TmpRl.mag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	TEMP_RL	The calculated temperature of the protected object relative to the operate level	0.00...99.99	Monitoring\I/O status\Current protection\T1PTTR1\Monitored data	

T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.TmpUsed.mag.f	MV	FLOAT32	MX	B				MB	TEMP_AMB	The ambient temperature used in the calculation	-99...999 °C	Monitoring\I/O status\Current protection\T1PTTR1\Monitored data	
T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.OpTm.stVal	INS	INT32	ST	B				MB,DN	T_OPERATE	Estimated time to operate	0...60000 s	Monitoring\I/O status\Current protection\T1PTTR1\Monitored data	
T1PTTR1	3Ith>F(1)	49F(1)	MON	LD0.T1PTTR1.BlkThmRsTm.stVal	INS	INT32	ST	B				MB,DN	T_ENA_CLOSE	Estimated time to deactivate BLK_CLOSE	0...60000 s	Monitoring\I/O status\Current protection\T1PTTR1\Monitored data	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.TmpMax.setMag.f	ASG	FLOAT32	SG	B	90.0				Maximum temperature	Temperature level for operate	20.0...200.0 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.ConsTms1.setVal	ING	INT32	SG	B	2700				Time constant	Time constant of the line in seconds.	60...60000 s	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.AlmVal.setMag.f	ASG	FLOAT32	SG	B	80.0				Alarm value	Temperature level for start (alarm)	20.0...150.0 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.AMult.setVal	ING	INT32	SG	A	1				Current multiplier	Current multiplier when function is used for parallel lines	1...5	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.ARef.setMag.f	ASG	FLOAT32	SG	B	1.00				Current reference	The load current leading to Temperature raise temperature	0.05...4.00 xIn	Settings\Settings\Current protection\T1PTTR1	IL1TCTR1
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.EnvTmpSet.setMag.f	ASG	FLOAT32	SG	B	40				Env temperature Set	Ambient temperature used when no external temperature measurement available	-50...100 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.IniTmp.setMag.f	ASG	FLOAT32	SP	A	0.0				Initial temperature	Temperature raise above ambient temperature at startup	-50.0...100.0 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.RecTmpSet.setMag.f	ASG	FLOAT32	SG	B	70.0				Reclose temperature	Temperature for reset of block reclose after operate	20.0...150.0 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	SET	LD0.T1PTTR1.TmpR.setMag.f	ASG	FLOAT32	SG	B	75.0				Temperature rise	End temperature rise above ambient	0.0...200.0 °C	Settings\Settings\Current protection\T1PTTR1	
T1PTTR1	3Ith>F(1)	49F(1)	TES	LD0.T1PTTR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				T1PTTR1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 17=Activate ALARM; 18=Deactive ALARM; 21=Activate BLK_CLOSE; 22=Deactive BLK_CLOSE	Tests\Function tests\Current protection	
T1PTTR1	3Ith>F(1)	49F(1)	VER	LD0.T1PTTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

INTRPTEF1: Intermittent earth fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	INP	LD0.INTRPTEF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\INTRPTEF1\Inputs	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	OUT	LD0.INTRPTEF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\INTRPTEF1\Outputs	

INTRPTEF1	Io>->IEF(1)	67NIEF(1)	OUT	LD0.INTRPTEF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\INTRPTEF1\Outputs	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	OUT	LD0.INTRPTEF1.InhEF.stVal	SPS	BOOLEAN	ST	B					BLK_EF	Block signal for EF to indicate opposite direction peaks		Monitoring\I/O status\Current protection\INTRPTEF1\Outputs	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	MON	LD0.INTRPTEF1.Beh.stVal	ENS	Enum	ST	B					INTRPTEF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	MON	LD0.INTRPTEF1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\INTRPTEF1\Monitored data	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	MON	LD0.INTRPTEF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\INTRPTEF1\Monitored data	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.GndStr.setMag.f	ASG	FLOAT32	SG	B	0.20				Voltage start value	Voltage start value	0.05...0.50 xUn	Settings\Settings\Current protection\INTRPTEF1	RESTVTR1
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.OpDlTmms.setVal	ING	INT32	SG	B	500				Operate delay time	Operate delay time	40...1200000 ms	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.RsDlTmms.setVal	ING	INT32	SP	A	500				Reset delay time	Reset delay time	40...60000 ms	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current for transient detector	0.01...1.00 xIn	Settings\Settings\Current protection\INTRPTEF1	RESTCTR1
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.PkCntLim.setVal	ING	INT32	SP	A	2				Peak counter limit	Min requirement for peak counter before start in IEF mode	2...20	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.OpModTEF.setVal	ENG	Enum	SP	B	1				Operation mode	Operation criteria	1=Intermittent EF; 2=Transient EF	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	SET	LD0.INTRPTEF1.VResSigSel.setVal	ENG	Enum	SP	B,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\INTRPTEF1	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	TES	LD0.INTRPTEF1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				INTRPTEF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 31=Activate BLK_EF; 32=Deactive BLK_EF	Tests\Function tests\Current protection	
INTRPTEF1	Io>->IEF(1)	67NIEF(1)	VER	LD0.INTRPTEF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

ROVPTOV3: Residual overvoltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ROVPTOV3	Uo>(3)	59G(3)	INP	LD0.ROVPTOV3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\ROVPTOV3\Inputs	
ROVPTOV3	Uo>(3)	59G(3)	OUT	LD0.ROVPTOV3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\ROVPTOV3\Outputs	

ROVPTOV3	Uo>(3)	59G(3)	OUT	LD0.ROVPTOV3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\ROVPTOV3\Outputs	
ROVPTOV3	Uo>(3)	59G(3)	MON	LD0.ROVPTOV3.Beh.stVal	ENS	Enum	ST	B					ROVPTOV3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ROVPTOV3	Uo>(3)	59G(3)	MON	LD0.ROVPTOV3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\ROVPTOV3\Monitored data	
ROVPTOV3	Uo>(3)	59G(3)	SET	LD0.ROVPTOV3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\ROVPTOV3	
ROVPTOV3	Uo>(3)	59G(3)	SET	LD0.ROVPTOV3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.030				Start value	Residual overvoltage start value	0.010...1.000 xUn	Settings\Settings\Voltage protection\ROVPTOV3	RESTVTR1
ROVPTOV3	Uo>(3)	59G(3)	SET	LD0.ROVPTOV3.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Voltage protection\ROVPTOV3	
ROVPTOV3	Uo>(3)	59G(3)	SET	LD0.ROVPTOV3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\ROVPTOV3	
ROVPTOV3	Uo>(3)	59G(3)	SET	LD0.ROVPTOV3.VResSigSel.setVal	ENG	Enum	SP	B,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Voltage protection\ROVPTOV3	
ROVPTOV3	Uo>(3)	59G(3)	TES	LD0.ROVPTOV3.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ROVPTOV3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
ROVPTOV3	Uo>(3)	59G(3)	VER	LD0.ROVPTOV3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PDNSPTOC1: Phase discontinuity protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PDNSPTOC1	I2/I1>(1)	46PD(1)	INP	LD0.PDNSPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PDNSPTOC1\Inputs	
PDNSPTOC1	I2/I1>(1)	46PD(1)	OUT	LD0.PDNSPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\PDNSPTOC1\Outputs	
PDNSPTOC1	I2/I1>(1)	46PD(1)	OUT	LD0.PDNSPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\PDNSPTOC1\Outputs	
PDNSPTOC1	I2/I1>(1)	46PD(1)	MON	LD0.PDNSPTOC1.Beh.stVal	ENS	Enum	ST	B					PDNSPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PDNSPTOC1	I2/I1>(1)	46PD(1)	MON	LD0.PDNSPTOC1.ImbNgA.mag.f	MV	FLOAT32	MX	B					RATIO_I2_I1	Measured current ratio I2 / I1	0.00...999.99 %	Monitoring\I/O status\Current protection\PDNSPTOC1\Monitored data	
PDNSPTOC1	I2/I1>(1)	46PD(1)	MON	LD0.PDNSPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PDNSPTOC1\Monitored data	
PDNSPTOC1	I2/I1>(1)	46PD(1)	SET	LD0.PDNSPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PDNSPTOC1	
PDNSPTOC1	I2/I1>(1)	46PD(1)	SET	LD0.PDNSPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	10				Start value	Start value	10...100 %	Settings\Settings\Current protection\PDNSPTOC1	
PDNSPTOC1	I2/I1>(1)	46PD(1)	SET	LD0.PDNSPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	100				Operate delay time	Operate delay time	100...30000 ms	Settings\Settings\Current protection\PDNSPTOC1	
PDNSPTOC1	I2/I1>(1)	46PD(1)	SET	LD0.PDNSPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PDNSPTOC1	

PDNSPTOC1	I2/I1>(1)	46PD(1)	SET	LD0.PDNSPTOC1.MinPhA.setMag.f	ASG	FLOAT32	SP	A	0.10				Min phase current	Minimum phase current	0.05...0.30 xIn	Settings\Settings\Current protection\PDNSPTOC1	IL1TCTR1
PDNSPTOC1	I2/I1>(1)	46PD(1)	TES	LD0.PDNSPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PDNSPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PDNSPTOC1	I2/I1>(1)	46PD(1)	VER	LD0.PDNSPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

PHIZ1: High Impedance Fault Detection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHIZ1	HIF(1)	HIZ(1)	INP	LD0.PHIZ1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\PHIZ1\Inputs	
PHIZ1	HIF(1)	HIZ(1)	INP	LD0.PHIZ1.PosCls.stVal	SPS	BOOLEAN	ST	B	0				CB_CLOSED	Circuit Breaker Closed input		Monitoring\I/O status\Other protection\PHIZ1\Inputs	
PHIZ1	HIF(1)	HIZ(1)	INP	LD0.PHIZ1.PosOpn.stVal	SPS	BOOLEAN	ST	B	0				CB_OPEN	Circuit Breaker Open input		Monitoring\I/O status\Other protection\PHIZ1\Inputs	
PHIZ1	HIF(1)	HIZ(1)	OUT	LD0.PHIZ1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\PHIZ1\Outputs	
PHIZ1	HIF(1)	HIZ(1)	MON	LD0.PHIZ1.Beh.stVal	ENS	Enum	ST	B					PHIZ1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHIZ1	HIF(1)	HIZ(1)	MON	LD0.PHIZ1.Str.general	ACD	BOOLEAN	ST			StatNrml	P,H	MB,DN,I3		(Start)			
PHIZ1	HIF(1)	HIZ(1)	MON	LD0.PHIZ1.Str.dirGeneral	ACD	Enum	ST			StatNrml	P,H	MB,DN		(Start)	0=unknown1=forward2=backward3=both		
PHIZ1	HIF(1)	HIZ(1)	MON	LD0.PHIZ1.Pos.stVal	DPC	Dbpos	ST	B					Position	Position	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Other protection\PHIZ1\Monitored data	
PHIZ1	HIF(1)	HIZ(1)	SET	LD0.PHIZ1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\PHIZ1	
PHIZ1	HIF(1)	HIZ(1)	SET	LD0.PHIZ1.SysTyp.setVal	ENG	Enum	SP	B,I	1				System type	System Type	1=Grounded; 2=Ungrounded	Settings\Settings\Other protection\PHIZ1	
PHIZ1	HIF(1)	HIZ(1)	SET	LD0.PHIZ1.SecLev.setVal	ING	INT32	SG	B,I	5				Security Level	Security Level	1...10	Settings\Settings\Other protection\PHIZ1	
PHIZ1	HIF(1)	HIZ(1)	TES	LD0.PHIZ1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHIZ1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Other protection	
PHIZ1	HIF(1)	HIZ(1)	VER	LD0.PHIZ1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

EFLPTOC1: Non-directional earth-fault protection, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFLPTOC1	Io>(1)	51N-1(1)	INP	LD0.EFLPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFLPTOC1\Inputs	
EFLPTOC1	Io>(1)	51N-1(1)	INP	LD0.EFLPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\EFLPTOC1\Inputs	
EFLPTOC1	Io>(1)	51N-1(1)	OUT	LD0.EFLPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFLPTOC1\Outputs	
EFLPTOC1	Io>(1)	51N-1(1)	OUT	LD0.EFLPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFLPTOC1\Outputs	

EFLPTOC1	Io>(1)	51N-1(1)	MON	LD0.EFLPTOC1.Beh.stVal	ENS	Enum	ST	B					EFLPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFLPTOC1	Io>(1)	51N-1(1)	MON	LD0.EFLPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFLPTOC1\Monitored data	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.010				Start value	Start value	0.010...5.000 xIn	Settings\Settings\Current protection\EFLPTOC1	RESTCTR1
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\EFLPTOC1	

EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	SET	LD0.EFLPTOC1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFLPTOC1	
EFLPTOC1	Io>(1)	51N-1(1)	TES	LD0.EFLPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFLPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFLPTOC1	Io>(1)	51N-1(1)	VER	LD0.EFLPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	G					(Name plate)			

EFLPTOC2: Non-directional earth-fault protection, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFLPTOC2	Io>(2)	51N-1(2)	INP	LD0.EFLPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFLPTOC2\Inputs	
EFLPTOC2	Io>(2)	51N-1(2)	INP	LD0.EFLPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\EFLPTOC2\Inputs	
EFLPTOC2	Io>(2)	51N-1(2)	OUT	LD0.EFLPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFLPTOC2\Outputs	
EFLPTOC2	Io>(2)	51N-1(2)	OUT	LD0.EFLPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFLPTOC2\Outputs	
EFLPTOC2	Io>(2)	51N-1(2)	MON	LD0.EFLPTOC2.Beh.stVal	ENS	Enum	ST	B					EFLPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFLPTOC2	Io>(2)	51N-1(2)	MON	LD0.EFLPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFLPTOC2\Monitored data	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\EFLPTOC2	

EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.010				Start value	Start value	0.010...5.000 xIn	Settings\Settings\Current protection\EFLPTOC2	RESTCTR1
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	SET	LD0.EFLPTOC2.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFLPTOC2	
EFLPTOC2	Io>(2)	51N-1(2)	TES	LD0.EFLPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFLPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFLPTOC2	Io>(2)	51N-1(2)	VER	LD0.EFLPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	G					(Name plate)			

EFIPTOC1: Non-directional earth-fault protection, inst. stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFIPTOC1	Io>>>(1)	50N/51N(1)	INP	LD0.EFIPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFIPTOC1\Inputs	
EFIPTOC1	Io>>>(1)	50N/51N(1)	INP	LD0.EFIPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\EFIPTOC1\Inputs	
EFIPTOC1	Io>>>(1)	50N/51N(1)	OUT	LD0.EFIPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFIPTOC1\Outputs	
EFIPTOC1	Io>>>(1)	50N/51N(1)	OUT	LD0.EFIPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFIPTOC1\Outputs	

EFIPTOC1	Io>>>(1)	50N/51N(1)	MON	LD0.EFIPTOC1.Beh.stVal	ENS	Enum	ST	B					EFIPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFIPTOC1	Io>>>(1)	50N/51N(1)	MON	LD0.EFIPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFIPTOC1\Monitored data	
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFIPTOC1	
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.00				Start value	Start value	1.00...40.00 xIn	Settings\Settings\Current protection\EFIPTOC1	RESTCTR1
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	20				Operate delay time	Operate delay time	20...200000 ms	Settings\Settings\Current protection\EFIPTOC1	
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFIPTOC1	
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\EFIPTOC1	
EFIPTOC1	Io>>>(1)	50N/51N(1)	SET	LD0.EFIPTOC1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFIPTOC1	
EFIPTOC1	Io>>>(1)	50N/51N(1)	TES	LD0.EFIPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFIPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFIPTOC1	Io>>>(1)	50N/51N(1)	VER	LD0.EFIPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

DPHHPDOC1: Three-phase directional overcurrent, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DPHHPDOC1	3I>>->(1)	67-2(1)	INP	LD0.DPHHPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DPHHPDOC1\Inputs	
DPHHPDOC1	3I>>->(1)	67-2(1)	INP	LD0.DPHHPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DPHHPDOC1\Inputs	
DPHHPDOC1	3I>>->(1)	67-2(1)	INP	LD0.DPHHPTOC1.NonDir.stVal	SPS	BOOLEAN	ST	B	0				NON_DIR	Forces protection to non-directional		Monitoring\I/O status\Current protection\DPHHPDOC1\Inputs	
DPHHPDOC1	3I>>->(1)	67-2(1)	OUT	LD0.DPHHPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\DPHHPDOC1\Outputs	
DPHHPDOC1	3I>>->(1)	67-2(1)	OUT	LD0.DPHHPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\DPHHPDOC1\Outputs	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHPTOC1.Beh.stVal	ENS	Enum	ST	B					DPHHPDOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHPTOC1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H	MB,DN,I3	FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.Dir.dirPhsA	ACD	Enum	ST	B					DIR_A	Direction phase A	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	

DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.Dir.dirPhsB	ACD	Enum	ST	B					DIR_B	Direction phase B	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.Dir.dirPhsC	ACD	Enum	ST	B					DIR_C	Direction phase C	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngPhsA.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngA.mag.f	MV	FLOAT32	MX	ED1					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngPhsB.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngB.mag.f	MV	FLOAT32	MX	ED1					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngPhsC.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.OpChrAngC.mag.f	MV	FLOAT32	MX	ED1					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	MON	LD0.DPHHRDIR1.VMemUsedSt.stVal	SPS	BOOLEAN	ST	B					VMEM_USED	Voltage memory in use status		Monitoring\I/O status\Current protection\DPHHPDOC1\Monitored data	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\DPHHPDOC1	IL1TCTR1
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\DPHHPDOC1	

DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHPTOC1.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-dir when dir info is invalid		Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.ChrAng.setMag.f	ASG	FLOAT32	SG	B	+60				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\DPHHPDOC1	IL1TCTR1
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DPHHPDOC1	UL1TVTR1
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.PolQty.setVal	ENG	Enum	SG	A	5				Pol quantity	Reference quantity used to determine fault direction	1=Self pol; 4=Neg. seq. volt.; 5=Cross pol; 7=Pos. seq. volt.	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	SET	LD0.DPHHRDIR1.VMemTmms.setVal	ING	INT32	SG	A	40				Voltage Mem time	Voltage memory time	0...3000 ms	Settings\Settings\Current protection\DPHHPDOC1	
DPHHPDOC1	3I>>->(1)	67-2(1)	TES	LD0.DPHHPTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DPHHPDOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DPHHPDOC1	3I>>->(1)	67-2(1)	VER	LD0.DPHHPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

DPHLPDOC1: Three-phase directional overcurrent, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

DPHLPDOC1	3I>->(1)	67-1(1)	INP	LD0.DPHLPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DPHLPDOC1\Inputs	
DPHLPDOC1	3I>->(1)	67-1(1)	INP	LD0.DPHLPTOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DPHLPDOC1\Inputs	
DPHLPDOC1	3I>->(1)	67-1(1)	INP	LD0.DPHLPTOC1.NonDir.stVal	SPS	BOOLEAN	ST	B	0				NON_DIR	Forces protection to non-directional		Monitoring\I/O status\Current protection\DPHLPDOC1\Inputs	
DPHLPDOC1	3I>->(1)	67-1(1)	OUT	LD0.DPHLPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\DPHLPDOC1\Outputs	
DPHLPDOC1	3I>->(1)	67-1(1)	OUT	LD0.DPHLPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\DPHLPDOC1\Outputs	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLPTOC1.Beh.stVal	ENS	Enum	ST	B					DPHLPDOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLPTOC1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H	MB,DN,I3	FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.Dir.dirPhsA	ACD	Enum	ST	B					DIR_A	Direction phase A	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.Dir.dirPhsB	ACD	Enum	ST	B					DIR_B	Direction phase B	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.Dir.dirPhsC	ACD	Enum	ST	B					DIR_C	Direction phase C	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngPhsA.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngA.mag.f	MV	FLOAT32	MX	ED1					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngPhsB.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngB.mag.f	MV	FLOAT32	MX	ED1					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngPhsC.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.OpChrAngC.mag.f	MV	FLOAT32	MX	ED1					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	

DPHLPDOC1	3I>->(1)	67-1(1)	MON	LD0.DPHLRDIR1.VMemUsedSt.stVal	SPS	BOOLEAN	ST	B					VMEM_USED	Voltage memory in use status		Monitoring\I/O status\Current protection\DPHLPDOC1\Monitored data	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\DPHLPDOC1	IL1TCTR1
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\DPHLPDOC1	

DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLPTOC1.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-dir when dir info is invalid		Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.ChrAng.setMag.f	ASG	FLOAT32	SG	B	+60				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\DPHLPDOC1	IL1TCTR1
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DPHLPDOC1	UL1TVTR1
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.PolQty.setVal	ENG	Enum	SG	A	5				Pol quantity	Reference quantity used to determine fault direction	1=Self pol; 4=Neg. seq. volt.; 5=Cross pol; 7=Pos. seq. volt.	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	SET	LD0.DPHLRDIR1.VMemTmms.setVal	ING	INT32	SG	A	40				Voltage Mem time	Voltage memory time	0...3000 ms	Settings\Settings\Current protection\DPHLPDOC1	
DPHLPDOC1	3I>->(1)	67-1(1)	TES	LD0.DPHLPTOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DPHLPDOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DPHLPDOC1	3I>->(1)	67-1(1)	VER	LD0.DPHLPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

DPHLPDOC2: Three-phase directional overcurrent, low stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DPHLPDOC2	3I>->(2)	67-1(2)	INP	LD0.DPHLPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\DPHLPDOC2\Inputs	
DPHLPDOC2	3I>->(2)	67-1(2)	INP	LD0.DPHLPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\DPHLPDOC2\Inputs	
DPHLPDOC2	3I>->(2)	67-1(2)	INP	LD0.DPHLPTOC2.NonDir.stVal	SPS	BOOLEAN	ST	B	0				NON_DIR	Forces protection to non-directional		Monitoring\I/O status\Current protection\DPHLPDOC2\Inputs	

DPHLPDOC2	3I>->(2)	67-1(2)	OUT	LD0.DPHLPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\DPHLPDOC2\Outputs	
DPHLPDOC2	3I>->(2)	67-1(2)	OUT	LD0.DPHLPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\DPHLPDOC2\Outputs	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLPTOC2.Beh.stVal	ENS	Enum	ST	B					DPHLPDOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLPTOC2.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H	MB,DN,I3	FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.Dir.dirPhsA	ACD	Enum	ST	B					DIR_A	Direction phase A	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.Dir.dirPhsB	ACD	Enum	ST	B					DIR_B	Direction phase B	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.Dir.dirPhsC	ACD	Enum	ST	B					DIR_C	Direction phase C	0=unknown; 1=forward; 2=backward; -1=both	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngPhsA.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngA.mag.f	MV	FLOAT32	MX	ED1					ANGLE_A	Calculated angle difference, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngPhsB.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngB.mag.f	MV	FLOAT32	MX	ED1					ANGLE_B	Calculated angle difference, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngPhsC.mag.f	MV	FLOAT32	MX	ED2,B					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.OpChrAngC.mag.f	MV	FLOAT32	MX	ED1					ANGLE_C	Calculated angle difference, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	MON	LD0.DPHLRDIR2.VMemUsedSt.stVal	SPS	BOOLEAN	ST	B					VMEM_USED	Voltage memory in use status		Monitoring\I/O status\Current protection\DPHLPDOC2\Monitored data	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E.	Settings\Settings\Current protection\DPHLPDOC2	

															inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type		
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\DPHLPDOC2	IL1TCTR1
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.0	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLPTOC2.AllwNonDir.setVal	SPG	BOOLEAN	SP	A	0				Allow Non Dir	Allows prot activation as non-		Settings\Settings\Current protection\DPHLPDOC2	

															dir when dir info is invalid			
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.ChrAng.setMag.f	ASG	FLOAT32	SG	B	+60				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.MinFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Min forward angle	Minimum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.MinRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Min reverse angle	Minimum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.MaxFwdAng.setMag.f	ASG	FLOAT32	SG	B	80				Max forward angle	Maximum phase angle in forward direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.MaxRvAng.setMag.f	ASG	FLOAT32	SG	B	80				Max reverse angle	Maximum phase angle in reverse direction	0...90 deg	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\DPHLPDOC2	IL1TCTR1
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\DPHLPDOC2	UL1TVTR1
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.PolQty.setVal	ENG	Enum	SG	A	5				Pol quantity	Reference quantity used to determine fault direction	1=Self pol; 4=Neg. seq. volt.; 5=Cross pol; 7=Pos. seq. volt.	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	SET	LD0.DPHLRDIR2.VMemTmms.setVal	ING	INT32	SG	A	40				Voltage Mem time	Voltage memory time	0...3000 ms	Settings\Settings\Current protection\DPHLPDOC2	
DPHLPDOC2	3I>->(2)	67-1(2)	TES	LD0.DPHLPTOC2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				DPHLPDOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
DPHLPDOC2	3I>->(2)	67-1(2)	VER	LD0.DPHLPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

SECRSYN1: Synchrocheck

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SECRSYN1	SYNC(1)	25(1)	INP	LD0.SECRSYN1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Blocking signal of the synchro check and voltage check function		Monitoring\I/O status\Control\SECRSYN1\Inputs	
SECRSYN1	SYNC(1)	25(1)	INP	LD0.SECRSYN1.ClsRq.stVal	SPS	BOOLEAN	ST	B	0				CL_COMMAND	External closing request		Monitoring\I/O status\Control\SECRSYN1\Inputs	
SECRSYN1	SYNC(1)	25(1)	INP	LD0.SECRSYN1.Byps.stVal	SPS	BOOLEAN	ST	B	0				BYPASS	Request to bypass synchronism check and voltage check		Monitoring\I/O status\Control\SECRSYN1\Inputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.Rel.stVal	SPS	BOOLEAN	ST	B					SYNC_OK	Systems in synchronism		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.SynPrg.stVal	SPC	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	SYNC_INPRO	Synchronizing in progress		Monitoring\I/O status\Control\SECRSYN1\Outputs	

SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.FailCmd.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	CMD_FAIL_AL	CB closing request failed		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.FailSyn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	CL_FAIL_AL	CB closing failed		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.LLDBInd.stVal	SPS	BOOLEAN	ST	B					LLDB	Live Line, Dead Bus		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.LLLBInd.stVal	SPS	BOOLEAN	ST	B					LLLB	Live Line, Live Bus		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.DLLBInd.stVal	SPS	BOOLEAN	ST	B					DLLB	Dead Line, Live Bus		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	OUT	LD0.SECRSYN1.DLDBInd.stVal	SPS	BOOLEAN	ST	B					DLDB	Dead Line, Dead Bus		Monitoring\I/O status\Control\SECRSYN1\Outputs	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.Beh.stVal	ENS	Enum	ST	B					SECRSYN1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.VInd.stVal	SPS	BOOLEAN	ST	B					U_DIFF_SYNC	Voltage difference out of limit for synchronizing		Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.AngInd.stVal	SPS	BOOLEAN	ST	B					PH_DIF_SYNC	Phase angle difference out of limit for synchronizing		Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.HzInd.stVal	SPS	BOOLEAN	ST	B					FR_DIFF_SYNC	Frequency difference out of limit for synchronizing		Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.DifVClc.mag.f	MV	FLOAT32	MX	B					U_DIFF_MEAS	Calculated voltage amplitude difference	0.00...1.00 xUn	Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.DifHzClc.mag.f	MV	FLOAT32	MX	B					FR_DIFF_MEAS	Calculated voltage frequency difference	0.000...0.100 xFn	Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.DifAngClc.mag.f	MV	FLOAT32	MX	B					PH_DIFF_MEAS	Calculated voltage phase angle difference	0.00...180.00 deg	Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	MON	LD0.SECRSYN1.EnSt.stVal	ENS	Enum	ST	B		StatUrg	P,H	MB,DN,I3	ENERG_STATE	Energization state of Line and Bus	0=Unknown; 1=Both Live; 2=Live L, Dead B; 3=Dead L, Live B; 4=Both Dead	Monitoring\I/O status\Control\SECRSYN1\Monitored data	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.DifV.setMag.f	ASG	FLOAT32	SG	B	0.05				Difference voltage	Maximum voltage difference limit	0.01...0.50 xUn	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.DifHz.setMag.f	ASG	FLOAT32	SG	B	0.001				Difference frequency	Maximum frequency difference limit	0.001...0.100 xFn	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.DifAng.setMag.f	ASG	FLOAT32	SG	B	5				Difference angle	Maximum angle difference limit	5...90 deg	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.LivDeaMod.setVal	ENG	Enum	SG	B	1				Live dead mode	Energizing check mode	-1=Off; 1=Both Dead; 2=Live L, Dead B; 3=Dead L, Live B; 4=Dead Bus, L Any; 5=Dead L, Bus Any; 6=One Live, Dead; 7=Not Both Live	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.DeaLinVal.setMag.f	ASG	FLOAT32	SP	B	0.2				Dead line value	Voltage low limit line for energizing check	0.1...0.8 xUn	Settings\Settings\Control\SECRSYN1	UL1TVTR2

SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.LivLinVal.setMag.f	ASG	FLOAT32	SP	B	0.8				Live line value	Voltage high limit line for energizing check	0.2...1.0 xUn	Settings\Settings\Control\SECRSYN1	UL1TVTR2
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.DeaBusVal.setMag.f	ASG	FLOAT32	SP	B	0.2				Dead bus value	Voltage low limit bus for energizing check	0.1...0.8 xUn	Settings\Settings\Control\SECRSYN1	UL1TVTR1
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.LivBusVal.setMag.f	ASG	FLOAT32	SP	B	0.5				Live bus value	Voltage high limit bus for energizing check	0.2...1.0 xUn	Settings\Settings\Control\SECRSYN1	UL1TVTR1
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.PlsTmms.setVal	ING	INT32	SP	A	200				Close pulse	Breaker closing pulse duration	200...60000 ms	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.CBTmms.setVal	ING	INT32	SP	A	60				Closing time of CB	Closing time of the breaker	40...250 ms	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.OpModSC.setVal	ENG	Enum	SP	B	3				Synchro check mode	Synchro check operation mode	1=Off; 2=Synchronous; 3=Asynchronous	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.OpModCtl.setVal	ENG	Enum	SP	A	1				Control mode	Selection of synchro check command or Continuous control mode	1=Continuous; 2=Command	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.MaxVEn.setMag.f	ASG	FLOAT32	SP	B	1.05				Max energizing V	Maximum voltage for energizing	0.50...1.15 xUn	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.PhSht.setMag.f	ASG	FLOAT32	SP	A	0				Phase shift	Correction of phase difference between measured U_BUS and U_LINE	-180...180 deg	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.EnTmms.setVal	ING	INT32	SP	A	100				Energizing time	Time delay for energizing check	100...60000 ms	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.MaxSynTmms.setVal	ING	INT32	SP	A	2000				Maximum Syn time	Maximum time to accept synchronizing	100...6000000 ms	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.MinSynTmms.setVal	ING	INT32	SP	A	0				Minimum Syn time	Minimum time to accept synchronizing	0...60000 ms	Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	SET	LD0.SECRSYN1.VSrcSw.setVal	SPG	BOOLEAN	SP	A	0				Voltage source switch	Voltage source switch		Settings\Settings\Control\SECRSYN1	
SECRSYN1	SYNC(1)	25(1)	TES	LD0.SECRSYN1.TestCtl.Oper.ctlVal	ENC	Enum	CO	B	0				SECRSYN1	Test control for outputs	0=Reset; 29=Activate SYNC_INPRO; 30=Deactive SYNC_INPRO; 31=Activate SYNC_OK; 32=Deactive SYNC_OK; 33=Activate CL_FAIL_AL; 34=Deactive CL_FAIL_AL; 35=Activate CMD_FAIL_AL; 36=Deactive CMD_FAIL_AL; 37=Activate LLDB; 38=Deactive LLDB; 39=Activate LLLB; 40=Deactive LLLB; 41=Activate DLLB; 42=Deactive DLLB; 43=Activate DLDB; 44=Deactive DLDB	Tests\Function tests\Control	
SECRSYN1	SYNC(1)	25(1)	VER	LD0.SECRSYN1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

VMMXU2: Three-phase voltage measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

VMMXU2	3U(2)	3V(2)	INP	LD0.VMMXU2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\VMMXU2\Inputs	
VMMXU2	3U(2)	3V(2)	OUT	LD0.VMMXU2.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\VMMXU2\Outputs	
VMMXU2	3U(2)	3V(2)	OUT	LD0.VMMXU2.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\VMMXU2\Outputs	
VMMXU2	3U(2)	3V(2)	OUT	LD0.VMMXU2.LoWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_WARN	Low warning		Monitoring\I/O status\Measurements\VMMXU2\Outputs	
VMMXU2	3U(2)	3V(2)	OUT	LD0.VMMXU2.LoAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_ALARM	Low alarm		Monitoring\I/O status\Measurements\VMMXU2\Outputs	
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsAB.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U12B-kV	Measured phase to phase voltage amplitude phase AB	0.00...4.00 xUn	Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsAB.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_AB	U12 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_AB	U12 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsAB.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_AB	U12 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsBC.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U23B-kV	Measured phase to phase voltage amplitude phase BC	0.00...4.00 xUn	Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsBC.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_BC	U23 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_BC	U23 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsBC.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_BC	U23 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsCA.instCVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	MB,I3	U31B-kV	Measured phase to phase voltage amplitude phase CA	0.00...4.00 xUn	Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsCA.instCVal.ang.f	DEL	FLOAT32	MX	B		MeasFlt	P		U_ANGL_CA	U31 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B		MeasFlt	P	DN	U_DB_CA	U31 Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PPV.phsCA.range	DEL	Enum	MX	B		MeasFlt	P		U_RANGE_CA	U31 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_A	UL1 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsA.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_A	UL1 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_B	UL2 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsB.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_B	UL2 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	U_INST_C	UL3 Amplitude, magnitude of instantaneous value	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2

VMMXU2	3U(2)	3V(2)	MON	LD0.VMMXU2.PhV.phsC.cVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_C	UL3 angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PPV.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_AB	Demand value of U12 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PPV.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_BC	Demand value of U23 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PPV.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B				MB,DN,I3	U_DMD_CA	Demand value of U31 voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_A	Demand value of UL1 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_B	Demand value of UL2 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	MON	LD0.VAVMMXU2.PhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_C	Demand value of UL3 voltage	0.00...5.00 xUn	Monitoring\I/O status\Measurements\VMMXU2\Monitored data	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\VMMXU2	
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.PPV.phsAB.db	DEL	INT32U	CF	B,I	10000				V deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.PPV.phsAB.rangeC.hhLim.f	DEL	FLOAT32	CF	B,I	1.40				V high high limit	High alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.PPV.phsAB.rangeC.hLim.f	DEL	FLOAT32	CF	B,I	1.20				V high limit	High warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.PPV.phsAB.rangeC.lLim.f	DEL	FLOAT32	CF	B,I	0.00				V low limit	Low warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.PPV.phsAB.rangeC.llLim.f	DEL	FLOAT32	CF	B,I	0.00				V low low limit	Low alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\VMMXU2	UL1TVTR2
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.VMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\VMMXU2	
VMMXU2	3U(2)	3V(2)	CFG	LD0.VMMXU2.NumPh.setVal	ENG	Enum	SP	B	1				Num of phases	Number of phases required by limit supervision	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Configuration\Measurements\VMMXU2	
VMMXU2	3U(2)	3V(2)	VER	LD0.VMMXU2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

HREFPDIF1: High impedance restricted earth fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HREFPDIF1	dIoHi>(1)	87NH(1)	INP	LD0.HREFPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\HREFPDIF1\Inputs	
HREFPDIF1	dIoHi>(1)	87NH(1)	OUT	LD0.HREFPDIF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Differential prot\HREFPDIF1\Outputs	
HREFPDIF1	dIoHi>(1)	87NH(1)	OUT	LD0.HREFPDIF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Differential prot\HREFPDIF1\Outputs	
HREFPDIF1	dIoHi>(1)	87NH(1)	MON	LD0.HREFPDIF1.Beh.stVal	ENS	Enum	ST	B					HREFPDIF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HREFPDIF1	dIoHi>(1)	87NH(1)	MON	LD0.HREFPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\HREFPDIF1\Monitored data	
HREFPDIF1	dIoHi>(1)	87NH(1)	SET	LD0.HREFPDIF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\HREFPDIF1	

HREFPDIF1	dIoHi>(1)	87NH(1)	SET	LD0.HREFPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	1.0				Operate value	Low operate value, percentage of the nominal current	1.0...50.0 %In	Settings\Settings\Differential prot\HREFPDIF1	RESTCTR1
HREFPDIF1	dIoHi>(1)	87NH(1)	SET	LD0.HREFPDIF1.MinOpTmms.setVal	ING	INT32	SG	B	40				Minimum operate time	Minimum operate time	40...300000 ms	Settings\Settings\Differential prot\HREFPDIF1	
HREFPDIF1	dIoHi>(1)	87NH(1)	SET	LD0.HREFPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Differential prot\HREFPDIF1	
HREFPDIF1	dIoHi>(1)	87NH(1)	TES	LD0.HREFPDIF1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				HREFPDIF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Differential prot	
HREFPDIF1	dIoHi>(1)	87NH(1)	VER	LD0.HREFPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

MFADPSDE1: Multi-frequency neutral admittance earth-fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MFADPSDE1	Io>->Y(1)	67YN(1)	INP	LD0.MFADPSDE1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\MFADPSDE1\Inputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	INP	LD0.MFADPSDE1.TrgSt.stVal	SPS	BOOLEAN	ST	B	0				RELEASE	External trigger to release neutral admittance protection		Monitoring\I/O status\Current protection\MFADPSDE1\Inputs	
MFADRDIR1			INP	LD0.MFADRDIR1.DirRs.stVal	SPC	BOOLEAN	ST	B	0				RESET	External trigger to reset direction calculatio		Monitoring\I/O status\Current protection\MFADPSDE1\Inputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	OUT	LD0.MFADPSDE1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\MFADPSDE1\Outputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	OUT	LD0.MFADPSDE1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\MFADPSDE1\Outputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	OUT	LD0.MFADPSDE1.ItmEFInd.stVal	SPS	BOOLEAN	ST	B					INTR_EF	Intermittent earth-fault indication		Monitoring\I/O status\Current protection\MFADPSDE1\Outputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	OUT	LD0.MFADPSDE1.InhEF.stVal	SPS	BOOLEAN	ST	B					BLK_EF	Block signal for EF to indicate opposite direction peaks		Monitoring\I/O status\Current protection\MFADPSDE1\Outputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	OUT	LD0.MFADPSDE1.PkInd.stVal	SPS	BOOLEAN	ST	B					PEAK_IND	Current transient detection indication		Monitoring\I/O status\Current protection\MFADPSDE1\Outputs	
MFADPSDE1	Io>->Y(1)	67YN(1)	MON	LD0.MFADPSDE1.Beh.stVal	ENS	Enum	ST	B					MFADPSDE1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MFADPSDE1	Io>->Y(1)	67YN(1)	MON	LD0.MFADPSDE1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\MFADPSDE1\Monitored data	
MFADPSDE1	Io>->Y(1)	67YN(1)	MON	LD0.MFADPSDE1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\MFADPSDE1\Monitored data	
MFADRDIR1			MON	LD0.MFADRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\MFADPSDE1\Monitored data	

MFADRDIR1			MON	LD0.MFADRDIR1.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\MFADPSDE1\Monitored data	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.GndStr.setMag.f	ASG	FLOAT32	SG	B	0.10				Voltage start value	Voltage start value	0.01...1.00 xUn	Settings\Settings\Current protection\MFADPSDE1	RESTVTR1
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.StrDlTmms.setVal	ING	INT32	SP	A,I	30				Start delay time	Start delay time	30...60000 ms	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.OpDlTmms.setVal	ING	INT32	SG	B	500				Operate delay time	Operate delay time	60...1200000 ms	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.RsDlTmms.setVal	ING	INT32	SP	A	500				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.PkCntLim.setVal	ING	INT32	SP	A	2				Peak counter limit	Peak counter limit for restriking EF	2...20	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.OpModTEF.setVal	ENG	Enum	SP	B,I	3				Operation mode	Operation criteria	1=Intermittent EF; 3=General EF; 4=Alarming EF	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	SET	LD0.MFADPSDE1.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\MFADPSDE1	
MFADRDIR1			SET	LD0.MFADRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SG	A	0.01				Min operate current	Minimum operate current	0.005...5.000 xIn	Settings\Settings\Current protection\MFADPSDE1	RESTCTR1
MFADRDIR1			SET	LD0.MFADRDIR1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\MFADPSDE1	
MFADRDIR1			SET	LD0.MFADRDIR1.TiltAng.setMag.f	ASG	FLOAT32	SG	A	5				Tilt angle	Characteristic tilt angle	2.0...20.0 deg	Settings\Settings\Current protection\MFADPSDE1	
MFADRDIR1			SET	LD0.MFADRDIR1.OpQtySel.setVal	ENG	Enum	SG	A	1				Operating quantity	Operating quantity selection	1=Adaptive; 2=Amplitude	Settings\Settings\Current protection\MFADPSDE1	
MFADPSDE1	Io>->Y(1)	67YN(1)	TES	LD0.MFADPSDE1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				MFADPSDE1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 121=Activate INTR_EF; 122=Deactive INTR_EF; 123=Activate PEAK_IND; 124=Deactive PEAK_IND; 23=Activate BLK_EF; 24=Deactive BLK_EF	Tests\Function tests\Current protection	
MFADPSDE1	Io>->Y(1)	67YN(1)	VER	LD0.MFADPSDE1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

FRPFRQ5: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ5	f>/f	81(5)	INP	LD0.FRPTRC5.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ5\Inputs	

FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTRC5.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTRC5.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTOF5.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTOF5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTUF5.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPTUF5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPFRC5.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	OUT	LD0.FRPFRC5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ5\Outputs	
FRPFRQ5	f>/f	81(5)	MON	LD0.FRPTRC5.Beh.stVal	ENS	Enum	ST	B					FRPFRQ5	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ5	f>/f	81(5)	MON	LD0.FRPTRC5.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ5\Monitored data	
FRPFRQ5	f>/f	81(5)	MON	LD0.FRPTOF5.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ5\Monitored data	
FRPFRQ5	f>/f	81(5)	MON	LD0.FRPTUF5.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ5\Monitored data	
FRPFRQ5	f>/f	81(5)	MON	LD0.FRPFRC5.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ5\Monitored data	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTRC5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTRC5.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTOF5.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTOF5.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTOF5.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPTUF5.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPFRC5.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPFRC5.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	SET	LD0.FRPFRC5.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ5	
FRPFRQ5	f>/f	81(5)	TES	LD0.FRPTRC5.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ5	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ;	Tests\Function tests\Frequency protection	

															70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG		
FRPFRQ5	f>/f	81(5)	VER	LD0.FRPTRC5.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

FRPFRQ6: Frequency protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
FRPFRQ6	f>/f	81(6)	INP	LD0.FRPTRC6.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\FRPFRQ6\Inputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTRC6.Op.general	ACT	BOOLEAN	ST	B					OPERATE	Operate		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTRC6.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTOF6.Str.general	ACD	BOOLEAN	ST	B					ST_OFRQ	Start signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTOF6.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_OFRQ	Operate signal for overfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTUF6.Str.general	ACD	BOOLEAN	ST	B					ST_UFRQ	Start signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPTUF6.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_UFRQ	Operate signal for underfrequency		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPFRC6.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Start signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	OUT	LD0.FRPFRC6.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_FRG	Operate signal for frequency gradient		Monitoring\I/O status\Frequency protection\FRPFRQ6\Outputs	
FRPFRQ6	f>/f	81(6)	MON	LD0.FRPTRC6.Beh.stVal	ENS	Enum	ST	B					FRPFRQ6	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
FRPFRQ6	f>/f	81(6)	MON	LD0.FRPTRC6.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ6\Monitored data	
FRPFRQ6	f>/f	81(6)	MON	LD0.FRPTOF6.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_OFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ6\Monitored data	
FRPFRQ6	f>/f	81(6)	MON	LD0.FRPTUF6.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_UFRQ	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ6\Monitored data	
FRPFRQ6	f>/f	81(6)	MON	LD0.FRPFRC6.StrDur.mag.f	MV	FLOAT32	MX	B					ST_DUR_FRG	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\FRPFRQ6\Monitored data	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTRC6.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTRC6.OpModProHz.setVal	ENG	Enum	SG	B	1				Operation mode	Frequency protection operation mode selection	1=Freq<; 2=Freq>; 3=df/dt; 4=Freq< + df/dt; 5=Freq> + df/dt; 6=Freq< OR df/dt; 7=Freq> OR df/dt	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTOF6.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.050				Start value Freq>	Frequency start value overfrequency	0.900...1.200 xFn	Settings\Settings\Frequency protection\FRPFRQ6	

FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTOF6.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Operate delay time for frequency	80...200000 ms	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTOF6.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm Freq	Reset delay time for frequency	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPTUF6.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.950				Start value Freq<	Frequency start value underfrequency	0.800...1.100 xFn	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPFRC6.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.0100				Start value df/dt	Frequency start value rate of change	-0.2000...0.2000 xFn /s	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPFRC6.OpDlTmms.setVal	ING	INT32	SG	B	400				Operate Tm df/dt	Operate delay time for frequency rate of change	120...200000 ms	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	SET	LD0.FRPFRC6.RsDlTmms.setVal	ING	INT32	SP	A	0				Reset delay Tm df/dt	Reset delay time for rate of change	0...60000 ms	Settings\Settings\Frequency protection\FRPFRQ6	
FRPFRQ6	f>/f	81(6)	TES	LD0.FRPTRC6.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				FRPFRQ6	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 69=Activate OPR_UFRQ; 70=Deactive OPR_UFRQ; 71=Activate OPR_OFRQ; 72=Deactive OPR_OFRQ; 73=Activate OPR_FRG; 74=Deactive OPR_FRG; 75=Activate ST_UFRQ; 76=Deactive ST_UFRQ; 77=Activate ST_OFRQ; 78=Deactive ST_OFRQ; 79=Activate ST_FRG; 80=Deactive ST_FRG	Tests\Function tests\Frequency protection	
FRPFRQ6	f>/f	81(6)	VER	LD0.FRPTRC6.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

HIAPDIF1: High impedance differential protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HIAPDIF1	dHi_A>(1)	87A(1)	INP	LD0.HIAPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\HIAPDIF1\Inputs	
HIAPDIF1	dHi_A>(1)	87A(1)	OUT	LD0.HIAPDIF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Differential prot\HIAPDIF1\Outputs	
HIAPDIF1	dHi_A>(1)	87A(1)	OUT	LD0.HIAPDIF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Differential prot\HIAPDIF1\Outputs	
HIAPDIF1	dHi_A>(1)	87A(1)	MON	LD0.HIAPDIF1.Beh.stVal	ENS	Enum	ST	B					HIAPDIF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HIAPDIF1	dHi_A>(1)	87A(1)	MON	LD0.HIAPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\HIAPDIF1\Monitored data	
HIAPDIF1	dHi_A>(1)	87A(1)	SET	LD0.HIAPDIF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\HIAPDIF1	
HIAPDIF1	dHi_A>(1)	87A(1)	SET	LD0.HIAPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	5.0				Operate value	Operate value, percentage of the nominal current	1.0...200.0 %In	Settings\Settings\Differential prot\HIAPDIF1	
HIAPDIF1	dHi_A>(1)	87A(1)	SET	LD0.HIAPDIF1.MinOpTmms.setVal	ING	INT32	SG	B	20				Minimum operate time	Minimum operate time	20...300000 ms	Settings\Settings\Differential prot\HIAPDIF1	
HIAPDIF1	dHi_A>(1)	87A(1)	SET	LD0.HIAPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Differential prot\HIAPDIF1	

HIAPDIF1	dHi_A>(1)	87A(1)	TES	LD0.HIAPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				HIAPDIF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Differential prot	
HIAPDIF1	dHi_A>(1)	87A(1)	VER	LD0.HIAPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

HIBPDIF1: High impedance differential protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HIBPDIF1	dHi_B>(1)	87B(1)	INP	LD0.HIBPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\HIBPDIF1\Inputs	
HIBPDIF1	dHi_B>(1)	87B(1)	OUT	LD0.HIBPDIF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Differential prot\HIBPDIF1\Outputs	
HIBPDIF1	dHi_B>(1)	87B(1)	OUT	LD0.HIBPDIF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Differential prot\HIBPDIF1\Outputs	
HIBPDIF1	dHi_B>(1)	87B(1)	MON	LD0.HIBPDIF1.Beh.stVal	ENS	Enum	ST	B					HIBPDIF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HIBPDIF1	dHi_B>(1)	87B(1)	MON	LD0.HIBPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\HIBPDIF1\Monitored data	
HIBPDIF1	dHi_B>(1)	87B(1)	SET	LD0.HIBPDIF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\HIBPDIF1	
HIBPDIF1	dHi_B>(1)	87B(1)	SET	LD0.HIBPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	5.0				Operate value	Operate value, percentage of the nominal current	1.0...200.0 %In	Settings\Settings\Differential prot\HIBPDIF1	
HIBPDIF1	dHi_B>(1)	87B(1)	SET	LD0.HIBPDIF1.MinOpTmms.setVal	ING	INT32	SG	B	20				Minimum operate time	Minimum operate time	20...300000 ms	Settings\Settings\Differential prot\HIBPDIF1	
HIBPDIF1	dHi_B>(1)	87B(1)	SET	LD0.HIBPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Differential prot\HIBPDIF1	
HIBPDIF1	dHi_B>(1)	87B(1)	TES	LD0.HIBPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				HIBPDIF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Differential prot	
HIBPDIF1	dHi_B>(1)	87B(1)	VER	LD0.HIBPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

HICPDIF1: High impedance differential protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HICPDIF1	dHi_C>(1)	87C(1)	INP	LD0.HICPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\HICPDIF1\Inputs	
HICPDIF1	dHi_C>(1)	87C(1)	OUT	LD0.HICPDIF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Differential prot\HICPDIF1\Outputs	
HICPDIF1	dHi_C>(1)	87C(1)	OUT	LD0.HICPDIF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Differential prot\HICPDIF1\Outputs	
HICPDIF1	dHi_C>(1)	87C(1)	MON	LD0.HICPDIF1.Beh.stVal	ENS	Enum	ST	B					HICPDIF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	

HICPDIF1	dHi_C>(1)	87C(1)	MON	LD0.HICPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\HICPDIF1\Monitored data	
HICPDIF1	dHi_C>(1)	87C(1)	SET	LD0.HICPDIF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\HICPDIF1	
HICPDIF1	dHi_C>(1)	87C(1)	SET	LD0.HICPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	5.0				Operate value	Operate value, percentage of the nominal current	1.0...200.0 %In	Settings\Settings\Differential prot\HICPDIF1	
HICPDIF1	dHi_C>(1)	87C(1)	SET	LD0.HICPDIF1.MinOpTmms.setVal	ING	INT32	SG	B	20				Minimum operate time	Minimum operate time	20...300000 ms	Settings\Settings\Differential prot\HICPDIF1	
HICPDIF1	dHi_C>(1)	87C(1)	SET	LD0.HICPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Differential prot\HICPDIF1	
HICPDIF1	dHi_C>(1)	87C(1)	TES	LD0.HICPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				HICPDIF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Differential prot	
HICPDIF1	dHi_C>(1)	87C(1)	VER	LD0.HICPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

HZCCASPVC1: Phase segregated CT supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	INP	LD0.HZCCASPVC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating blocking mode		Monitoring\I/O status\Condition monitoring\HZCCASPVC1\Inputs	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	OUT	LD0.HZCCASPVC1.Alm.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\HZCCASPVC1\Outputs	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CTR	LD0.HZCCASPVC1.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				HZCCASPVC1 alarm	Reset HZCCASPVC1 lockout alarm	0=Cancel; 1=Clear	Clear\Clear	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	MON	LD0.HZCCASPVC1.Beh.stVal	ENS	Enum	ST	B					HZCCASPVC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\HZCCASPVC1	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	10.0				Start value	Start value, percentage of the nominal current	1.0...100.0 %In	Configuration\Condition monitoring\HZCCASPVC1	IL1TCTR1
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.AlmTmms.setVal	ING	INT32	SG	B	3000				Alarm delay time	Alarm delay time	100...300000 ms	Configuration\Condition monitoring\HZCCASPVC1	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Configuration\Condition monitoring\HZCCASPVC1	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	2=DFT; 3=Peak-to-Peak	Configuration\Condition monitoring\HZCCASPVC1	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	CFG	LD0.HZCCASPVC1.AlmOutMod.setVal	ENG	Enum	SP	B	3				Alarm output mode	Select the operation mode for alarm output	1=Non-latched; 3=Lockout	Configuration\Condition monitoring\HZCCASPVC1	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	TES	LD0.HZCCASPVC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				HZCCASPVC1	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Condition monitoring	
HZCCASPVC1	MCS I_A(1)	MCS I_A(1)	VER	LD0.HZCCASPVC1.NamPlt.swRev	LPL	VisString255 (20)	DC		B					(Name plate)			

HZCCBSPVC1: Phase segregated CT supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	INP	LD0.HZCCBSPVC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating blocking mode		Monitoring\I/O status\Condition monitoring\HZCCBSPVC1\Inputs	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	OUT	LD0.HZCCBSPVC1.Alm.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\HZCCBSPVC1\Outputs	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CTR	LD0.HZCCBSPVC1.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				HZCCBSPVC1 alarm	Reset HZCCBSPVC1 lockout alarm	0=Cancel; 1=Clear	Clear\Clear	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	MON	LD0.HZCCBSPVC1.Beh.stVal	ENS	Enum	ST	B					HZCCBSPVC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\HZCCBSPVC1	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	10.0				Start value	Start value, percentage of the nominal current	1.0...100.0 %In	Configuration\Condition monitoring\HZCCBSPVC1	IL1TCTR1
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.AlmTmms.setVal	ING	INT32	SG	B	3000				Alarm delay time	Alarm delay time	100...300000 ms	Configuration\Condition monitoring\HZCCBSPVC1	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Configuration\Condition monitoring\HZCCBSPVC1	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	2=DFT; 3=Peak-to-Peak	Configuration\Condition monitoring\HZCCBSPVC1	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	CFG	LD0.HZCCBSPVC1.AlmOutMod.setVal	ENG	Enum	SP	B	3				Alarm output mode	Select the operation mode for alarm output	1=Non-latched; 3=Lockout	Configuration\Condition monitoring\HZCCBSPVC1	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	TES	LD0.HZCCBSPVC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				HZCCBSPVC1	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Condition monitoring	
HZCCBSPVC1	MCS I_B(1)	MCS I_B(1)	VER	LD0.HZCCBSPVC1.NamPlt.swRev	LPL	VisString255 (20)	DC		B					(Name plate)			

HZCCCSPVC1: Phase segregated CT supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	INP	LD0.HZCCCSPVC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating blocking mode		Monitoring\I/O status\Condition monitoring\HZCCCSPVC1\Inputs	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	OUT	LD0.HZCCCSPVC1.Alm.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ALARM	Alarm output		Monitoring\I/O status\Condition monitoring\HZCCCSPVC1\Outputs	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CTR	LD0.HZCCCSPVC1.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				HZCCCSPVC1 alarm	Reset HZCCCSPVC1 lockout alarm	0=Cancel; 1=Clear	Clear\Clear	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	MON	LD0.HZCCCSPVC1.Beh.stVal	ENS	Enum	ST	B					HZCCCSPVC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Condition monitoring\HZCCCSPVC1	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	10.0				Start value	Start value, percentage of the nominal current	1.0...100.0 %In	Configuration\Condition monitoring\HZCCCSPVC1	IL1TCTR1

HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.AlmTmms.setVal	ING	INT32	SG	B	3000				Alarm delay time	Alarm delay time	100...300000 ms	Configuration\Condition monitoring\HZCCCSPVC1	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Configuration\Condition monitoring\HZCCCSPVC1	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	2=DFT; 3=Peak-to-Peak	Configuration\Condition monitoring\HZCCCSPVC1	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	CFG	LD0.HZCCCSPVC1.AlmOutMod.setVal	ENG	Enum	SP	B	3				Alarm output mode	Select the operation mode for alarm output	1=Non-latched; 3=Lockout	Configuration\Condition monitoring\HZCCCSPVC1	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	TES	LD0.HZCCCSPVC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				HZCCCSPVC1	Test control for outputs	0=Reset; 17=Activate ALARM; 18=Deactive ALARM	Tests\Function tests\Condition monitoring	
HZCCCSPVC1	MCS I_C(1)	MCS I_C(1)	VER	LD0.HZCCCSPVC1.NamPlt.swRev	LPL	VisString255 (20)	DC		B					(Name plate)			

LREFPNDF1: Low impedance restricted earth fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LREFPNDF1	dIoLo>(1)	87NL(1)	INP	LD0.LREFPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\LREFPNDF1\Inputs	
LREFPNDF1	dIoLo>(1)	87NL(1)	OUT	LD0.LREFPDIF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Differential prot\LREFPNDF1\Outputs	
LREFPNDF1	dIoLo>(1)	87NL(1)	OUT	LD0.LREFPDIF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Differential prot\LREFPNDF1\Outputs	
LREFPNDF1	dIoLo>(1)	87NL(1)	OUT	LD0.LREFPDIF1.Blk2HSt.general	ACT	BOOLEAN	ST	B					BLK2H	2nd harmonic block		Monitoring\I/O status\Differential prot\LREFPNDF1\Outputs	
LREFPNDF1	dIoLo>(1)	87NL(1)	MON	LD0.LREFPDIF1.Beh.stVal	ENS	Enum	ST	B					LREFPNDF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LREFPNDF1	dIoLo>(1)	87NL(1)	MON	LD0.LREFPDIF1.DifAClc.res.cVal.mag.f	WYE	FLOAT32	MX	B					ID_COSPHI	Directional differential current Id cosphi	0.00...80.00 xIn	Monitoring\I/O status\Differential prot\LREFPNDF1\Monitored data	IL1TCTR1
LREFPNDF1	dIoLo>(1)	87NL(1)	MON	LD0.LREFPDIF1.RstA.res.cVal.mag.f	WYE	FLOAT32	MX	B					IB	Bias current	0.00...80.00 xIn	Monitoring\I/O status\Differential prot\LREFPNDF1\Monitored data	IL1TCTR1
LREFPNDF1	dIoLo>(1)	87NL(1)	MON	LD0.LREFPDIF1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Differential prot\LREFPNDF1\Monitored data	
LREFPNDF1	dIoLo>(1)	87NL(1)	MON	LD0.LREFPHAR1.Str.general	ACD	BOOLEAN	ST	B					RES2H	2nd harmonic restraint		Monitoring\I/O status\Differential prot\LREFPNDF1\Monitored data	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	5.0				Operate value	Operate value	5.0...50.0 %In	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.MinOpTmms.setVal	ING	INT32	SG	A	40				Minimum operate time	Minimum operate time	40...300000 ms	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.RstMod.setVal	ENG	Enum	SG	A	1				Restraint mode	Restraint mode	1=None; 2=Harmonic2	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Differential prot\LREFPNDF1	

LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPDIF1.CTConnTyp.setVal	ENG	Enum	SP	B	2				CT connection type	CT connection type	1=Type 1; 2=Type 2	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	SET	LD0.LREFPHAR1.PhStr.setMag.f	ASG	FLOAT32	SG	A	50				Start value 2.H	The ratio of the 2. harmonic to fundamental component required for blocking	10...50 %	Settings\Settings\Differential prot\LREFPNDF1	
LREFPNDF1	dIoLo>(1)	87NL(1)	TES	LD0.LREFPDIF1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LREFPNDF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; 35=Activate BLK2H; 36=Deactive BLK2H	Tests\Function tests\Differential prot	
LREFPNDF1	dIoLo>(1)	87NL(1)	VER	LD0.LREFPDIF1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

EFHPTOC2: Non-directional earth-fault protection, high stage

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFHPTOC2	Io>>(2)	51N-2(2)	INP	LD0.EFHPTOC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFHPTOC2\Inputs	
EFHPTOC2	Io>>(2)	51N-2(2)	INP	LD0.EFHPTOC2.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\EFHPTOC2\Inputs	
EFHPTOC2	Io>>(2)	51N-2(2)	OUT	LD0.EFHPTOC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFHPTOC2\Outputs	
EFHPTOC2	Io>>(2)	51N-2(2)	OUT	LD0.EFHPTOC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFHPTOC2\Outputs	
EFHPTOC2	Io>>(2)	51N-2(2)	MON	LD0.EFHPTOC2.Beh.stVal	ENS	Enum	ST	B					EFHPTOC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFHPTOC2	Io>>(2)	51N-2(2)	MON	LD0.EFHPTOC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFHPTOC2\Monitored data	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 3=ANSI Norm. inv.; 5=ANSI Def. Time; 9=IEC Norm. inv.; 10=IEC Very inv.; 12=IEC Ext. inv.; 15=IEC Def. Time; 17=Programmable	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\EFHPTOC2	

EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.10...40.00 xIn	Settings\Settings\Current protection\EFHPTOC2	RESTCTR1
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.MinOpTmms.setVal	ING	INT32	SP	A	20				Minimum operate time	Minimum operate time for IDMT curves	20...60000 ms	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	SET	LD0.EFHPTOC2.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFHPTOC2	
EFHPTOC2	Io>>(2)	51N-2(2)	TES	LD0.EFHPTOC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFHPTOC2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFHPTOC2	Io>>(2)	51N-2(2)	VER	LD0.EFHPTOC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

LSHDPFRQ1: Load shedding

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	INP	LD0.LSHDPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Inputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	INP	LD0.LSHDPTOF1.ManRest.stVal	SPC	BOOLEAN	ST	B	0				MAN_RESTORE	Manual restore signal		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Inputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	INP	LD0.LSHDPTOF1.BlkRest.stVal	SPC	BOOLEAN	ST	B	0				BLK_REST	Block restore		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Inputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operation of load shedding		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTRC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTUF1.Str.general	ACD	BOOLEAN	ST	B					ST_FRQ	Pick-Up signal for under frequency detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	

LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTUF1.Op.general	ACT	BOOLEAN	ST	B					OPR_FRQ	Operate signal for under frequency		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPFRC1.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Pick-Up signal for high df/dt detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPFRC1.Op.general	ACT	BOOLEAN	ST	B					OPR_FRG	Operate signal for high df/dt		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTOF1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_REST	Restore frequency attained and restore timer started		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	OUT	LD0.LSHDPTOF1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	RESTORE	Restore signal for load restoring purposes		Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Outputs	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	CTR	LD0.LSHDPTOF1.ManRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Manual restore command)			
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	CTR	LD0.LSHDPTOF1.BlkRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Cancel restore)			
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	MON	LD0.LSHDPTRC1.Beh.stVal	ENS	Enum	ST	B					LSHDPFRQ1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	MON	LD0.LSHDPTRC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\LSHDPFRQ1\Monitored data	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTRC1.OpDlTmms.setVal	ING	INT32	SG	B	300				Restore delay time	Time delay to restore	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTRC1.RsDlTmms.setVal	ING	INT32	SP	A	50				Reset delay time	Time delay after which the definite timers will reset	0...60000 ms	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTRC1.LodShdMod.setVal	ENG	Enum	SG	B	1				Load shed mode	Set the operation mode for load shedding function	1=Freq<; 6=Freq< OR df/dt; 8=Freq< AND df/dt	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTUF1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.975				Start value Freq	Frequency setting/start value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTUF1.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Time delay to operate for under frequency stage	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPFRC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	-0.010				Start value df/dt	Setting of frequency gradient for df/dt detection	-0.200...-0.005 xFn /s	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPFRC1.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm df/dt	Time delay to operate for df/dt stage	120...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ1	

LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTOF1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.998				Restore start Val	Restore frequency setting value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	SET	LD0.LSHDPTOF1.RestMod.setVal	ENG	Enum	SG	B	1				Restore mode	Mode of operation of restore functionality	1=Disabled; 2=Auto; 3=Manual	Settings\Settings\Frequency protection\LSHDPFRQ1	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	TES	LD0.LSHDPTRC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LSHDPFRQ1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -21=Activate OPR_UFRQ; -22=Deactive OPR_UFRQ; -25=Activate OPR_FRG; -26=Deactive OPR_FRG; -27=Activate ST_UFRQ; -28=Deactive ST_UFRQ; -31=Activate ST_FRG; -32=Deactive ST_FRG; 115=Activate RESTORE; 116=Deactive RESTORE; -55=Activate ST_REST; -56=Deactive ST_REST	Tests\Function tests\Frequency protection	
LSHDPFRQ1	UFLS/R(1)	81LSH(1)	VER	LD0.LSHDPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LSHDPFRQ2: Load shedding

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	INP	LD0.LSHDPTRC2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Inputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	INP	LD0.LSHDPTOF2.ManRest.stVal	SPC	BOOLEAN	ST	B	0				MAN_RESTORE	Manual restore signal		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Inputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	INP	LD0.LSHDPTOF2.BlkRest.stVal	SPC	BOOLEAN	ST	B	0				BLK_REST	Block restore		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Inputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTRC2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operation of load shedding		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTRC2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTUF2.Str.general	ACD	BOOLEAN	ST	B					ST_FRQ	Pick-Up signal for under frequency detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTUF2.Op.general	ACT	BOOLEAN	ST	B					OPR_FRQ	Operate signal for under frequency		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPFRC2.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Pick-Up signal for high df/dt detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPFRC2.Op.general	ACT	BOOLEAN	ST	B					OPR_FRG	Operate signal for high df/dt		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTOF2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_REST	Restore frequency attained and		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	

														restore timer started			
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	OUT	LD0.LSHDPTOF2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	RESTORE	Restore signal for load restoring purposes		Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Outputs	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	CTR	LD0.LSHDPTOF2.ManRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Manual restore command)			
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	CTR	LD0.LSHDPTOF2.BlkRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Cancel restore)			
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	MON	LD0.LSHDPTRC2.Beh.stVal	ENS	Enum	ST	B					LSHDPFRQ2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	MON	LD0.LSHDPTRC2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\LSHDPFRQ2\Monitored data	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTRC2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTRC2.OpDlTmms.setVal	ING	INT32	SG	B	300				Restore delay time	Time delay to restore	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTRC2.RsDlTmms.setVal	ING	INT32	SP	A	50				Reset delay time	Time delay after which the definite timers will reset	0...60000 ms	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTRC2.LodShdMod.setVal	ENG	Enum	SG	B	1				Load shed mode	Set the operation mode for load shedding function	1=Freq<; 6=Freq< OR df/dt; 8=Freq< AND df/dt	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTUF2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.975				Start value Freq	Frequency setting/start value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTUF2.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Time delay to operate for under frequency stage	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPFRC2.StrVal.setMag.f	ASG	FLOAT32	SG	B	-0.010				Start value df/dt	Setting of frequency gradient for df/dt detection	-0.200...-0.005 xFn /s	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPFRC2.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm df/dt	Time delay to operate for df/dt stage	120...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTOF2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.998				Restore start Val	Restore frequency setting value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	SET	LD0.LSHDPTOF2.RestMod.setVal	ENG	Enum	SG	B	1				Restore mode	Mode of operation of restore functionality	1=Disabled; 2=Auto; 3=Manual	Settings\Settings\Frequency protection\LSHDPFRQ2	
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	TES	LD0.LSHDPTRC2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LSHDPFRQ2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -21=Activate OPR_UFRQ; -22=Deactive OPR_UFRQ; -25=Activate OPR_FRG; -26=Deactive OPR_FRG; -27=Activate ST_UFRQ; -28=Deactive ST_UFRQ; -31=Activate ST_FRG; -32=Deactive	Tests\Function tests\Frequency protection	

															ST_FRG; 115=Activate RESTORE; 116=Deactive RESTORE; -55=Activate ST_REST; -56=Deactive ST_REST		
LSHDPFRQ2	UFLS/R(2)	81LSH(2)	VER	LD0.LSHDPTRC2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LSHDPFRQ3: Load shedding

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	INP	LD0.LSHDPTRC3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Inputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	INP	LD0.LSHDPTOF3.ManRest.stVal	SPC	BOOLEAN	ST	B	0				MAN_RESTORE	Manual restore signal		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Inputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	INP	LD0.LSHDPTOF3.BlkRest.stVal	SPC	BOOLEAN	ST	B	0				BLK_REST	Block restore		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Inputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTRC3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operation of load shedding		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTRC3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTUF3.Str.general	ACD	BOOLEAN	ST	B					ST_FRQ	Pick-Up signal for under frequency detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTUF3.Op.general	ACT	BOOLEAN	ST	B					OPR_FRQ	Operate signal for under frequency		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPFRC3.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Pick-Up signal for high df/dt detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPFRC3.Op.general	ACT	BOOLEAN	ST	B					OPR_FRG	Operate signal for high df/dt		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTOF3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_REST	Restore frequency attained and restore timer started		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	OUT	LD0.LSHDPTOF3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	RESTORE	Restore signal for load restoring purposes		Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Outputs	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	CTR	LD0.LSHDPTOF3.ManRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Manual restore command)			
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	CTR	LD0.LSHDPTOF3.BlkRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Cancel restore)			
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	MON	LD0.LSHDPTRC3.Beh.stVal	ENS	Enum	ST	B					LSHDPFRQ3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	MON	LD0.LSHDPTRC3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\LSHDPFRQ3\Monitored data	

LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTRC3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTRC3.OpDlTmms.setVal	ING	INT32	SG	B	300				Restore delay time	Time delay to restore	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTRC3.RsDlTmms.setVal	ING	INT32	SP	A	50				Reset delay time	Time delay after which the definite timers will reset	0...60000 ms	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTRC3.LodShdMod.setVal	ENG	Enum	SG	B	1				Load shed mode	Set the operation mode for load shedding function	1=Freq<; 6=Freq< OR df/dt; 8=Freq< AND df/dt	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTUF3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.975				Start value Freq	Frequency setting/start value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTUF3.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Time delay to operate for under frequency stage	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPFRC3.StrVal.setMag.f	ASG	FLOAT32	SG	B	-0.010				Start value df/dt	Setting of frequency gradient for df/dt detection	-0.200...-0.005 xFn /s	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPFRC3.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm df/dt	Time delay to operate for df/dt stage	120...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTOF3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.998				Restore start Val	Restore frequency setting value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	SET	LD0.LSHDPTOF3.RestMod.setVal	ENG	Enum	SG	B	1				Restore mode	Mode of operation of restore functionality	1=Disabled; 2=Auto; 3=Manual	Settings\Settings\Frequency protection\LSHDPFRQ3	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	TES	LD0.LSHDPTRC3.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LSHDPFRQ3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -21=Activate OPR_UFRQ; -22=Deactive OPR_UFRQ; -25=Activate OPR_FRG; -26=Deactive OPR_FRG; -27=Activate ST_UFRQ; -28=Deactive ST_UFRQ; -31=Activate ST_FRG; -32=Deactive ST_FRG; 115=Activate RESTORE; 116=Deactive RESTORE; -55=Activate ST_REST; -56=Deactive ST_REST	Tests\Function tests\Frequency protection	
LSHDPFRQ3	UFLS/R(3)	81LSH(3)	VER	LD0.LSHDPTRC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LSHDPFRQ4: Load shedding

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

LSHDPFRQ4	UFLS/R(4)	81LSH(4)	INP	LD0.LSHDPTRC4.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Inputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	INP	LD0.LSHDPTOF4.ManRest.stVal	SPC	BOOLEAN	ST	B	0				MAN_RESTORE	Manual restore signal		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Inputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	INP	LD0.LSHDPTOF4.BlkRest.stVal	SPC	BOOLEAN	ST	B	0				BLK_REST	Block restore		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Inputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTRC4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operation of load shedding		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTRC4.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTUF4.Str.general	ACD	BOOLEAN	ST	B					ST_FRQ	Pick-Up signal for under frequency detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTUF4.Op.general	ACT	BOOLEAN	ST	B					OPR_FRQ	Operate signal for under frequency		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPFRC4.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Pick-Up signal for high df/dt detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPFRC4.Op.general	ACT	BOOLEAN	ST	B					OPR_FRG	Operate signal for high df/dt		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTOF4.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_REST	Restore frequency attained and restore timer started		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	OUT	LD0.LSHDPTOF4.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	RESTORE	Restore signal for load restoring purposes		Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Outputs	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	CTR	LD0.LSHDPTOF4.ManRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Manual restore command)			
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	CTR	LD0.LSHDPTOF4.BlkRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Cancel restore)			
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	MON	LD0.LSHDPTRC4.Beh.stVal	ENS	Enum	ST	B					LSHDPFRQ4	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	MON	LD0.LSHDPTRC4.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\LSHDPFRQ4\Monitored data	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTRC4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTRC4.OpDlTmms.setVal	ING	INT32	SG	B	300				Restore delay time	Time delay to restore	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTRC4.RsDlTmms.setVal	ING	INT32	SP	A	50				Reset delay time	Time delay after which the definite timers will reset	0...60000 ms	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTRC4.LodShdMod.setVal	ENG	Enum	SG	B	1				Load shed mode	Set the operation mode for load	1=Freq<; 6=Freq< OR df/dt; 8=Freq< AND df/dt	Settings\Settings\Frequency protection\LSHDPFRQ4	

														shedding function			
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTUF4.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.975				Start value Freq	Frequency setting/start value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTUF4.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Time delay to operate for under frequency stage	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPFRC4.StrVal.setMag.f	ASG	FLOAT32	SG	B	-0.010				Start value df/dt	Setting of frequency gradient for df/dt detection	-0.200...-0.005 xFn /s	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPFRC4.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm df/dt	Time delay to operate for df/dt stage	120...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTOF4.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.998				Restore start Val	Restore frequency setting value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	SET	LD0.LSHDPTOF4.RestMod.setVal	ENG	Enum	SG	B	1				Restore mode	Mode of operation of restore functionality	1=Disabled; 2=Auto; 3=Manual	Settings\Settings\Frequency protection\LSHDPFRQ4	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	TES	LD0.LSHDPTRC4.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LSHDPFRQ4	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -21=Activate OPR_UFRQ; -22=Deactive OPR_UFRQ; -25=Activate OPR_FRG; -26=Deactive OPR_FRG; -27=Activate ST_UFRQ; -28=Deactive ST_UFRQ; -31=Activate ST_FRG; -32=Deactive ST_FRG; 115=Activate RESTORE; 116=Deactive RESTORE; -55=Activate ST_REST; -56=Deactive ST_REST	Tests\Function tests\Frequency protection	
LSHDPFRQ4	UFLS/R(4)	81LSH(4)	VER	LD0.LSHDPTRC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

LSHDPFRQ5: Load shedding

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	INP	LD0.LSHDPTRC5.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Inputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	INP	LD0.LSHDPTOF5.ManRest.stVal	SPC	BOOLEAN	ST	B	0				MAN_RESTORE	Manual restore signal		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Inputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	INP	LD0.LSHDPTOF5.BlkRest.stVal	SPC	BOOLEAN	ST	B	0				BLK_REST	Block restore		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Inputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTRC5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operation of load shedding		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTRC5.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	

LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTUF5.Str.general	ACD	BOOLEAN	ST	B					ST_FRQ	Pick-Up signal for under frequency detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTUF5.Op.general	ACT	BOOLEAN	ST	B					OPR_FRQ	Operate signal for under frequency		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPFRC5.Str.general	ACD	BOOLEAN	ST	B					ST_FRG	Pick-Up signal for high df/dt detection		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPFRC5.Op.general	ACT	BOOLEAN	ST	B					OPR_FRG	Operate signal for high df/dt		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTOF5.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ST_REST	Restore frequency attained and restore timer started		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	OUT	LD0.LSHDPTOF5.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	RESTORE	Restore signal for load restoring purposes		Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Outputs	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	CTR	LD0.LSHDPTOF5.ManRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Manual restore command)			
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	CTR	LD0.LSHDPTOF5.BlkRest.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(Cancel restore)			
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	MON	LD0.LSHDPTRC5.Beh.stVal	ENS	Enum	ST	B					LSHDPFRQ5	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	MON	LD0.LSHDPTRC5.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Start duration	0.00...100.00 %	Monitoring\I/O status\Frequency protection\LSHDPFRQ5\Monitored data	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTRC5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTRC5.OpDlTmms.setVal	ING	INT32	SG	B	300				Restore delay time	Time delay to restore	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTRC5.RsDlTmms.setVal	ING	INT32	SP	A	50				Reset delay time	Time delay after which the definite timers will reset	0...60000 ms	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTRC5.LodShdMod.setVal	ENG	Enum	SG	B	1				Load shed mode	Set the operation mode for load shedding function	1=Freq<; 6=Freq< OR df/dt; 8=Freq< AND df/dt	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTUF5.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.975				Start value Freq	Frequency setting/start value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTUF5.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm Freq	Time delay to operate for under frequency stage	80...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPFRC5.StrVal.setMag.f	ASG	FLOAT32	SG	B	-0.010				Start value df/dt	Setting of frequency gradient for df/dt detection	-0.200...-0.005 xFn /s	Settings\Settings\Frequency protection\LSHDPFRQ5	

LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPFRC5.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate Tm df/dt	Time delay to operate for df/dt stage	120...200000 ms	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTOF5.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.998				Restore start Val	Restore frequency setting value	0.800...1.200 xFn	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	SET	LD0.LSHDPTOF5.RestMod.setVal	ENG	Enum	SG	B	1				Restore mode	Mode of operation of restore functionality	1=Disabled; 2=Auto; 3=Manual	Settings\Settings\Frequency protection\LSHDPFRQ5	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	TES	LD0.LSHDPTRC5.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				LSHDPFRQ5	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -21=Activate OPR_UFRQ; -22=Deactive OPR_UFRQ; -25=Activate OPR_FRG; -26=Deactive OPR_FRG; -27=Activate ST_UFRQ; -28=Deactive ST_UFRQ; -31=Activate ST_FRG; -32=Deactive ST_FRG; 115=Activate RESTORE; 116=Deactive RESTORE; -55=Activate ST_REST; -56=Deactive ST_REST	Tests\Function tests\Frequency protection	
LSHDPFRQ5	UFLS/R(5)	81LSH(5)	VER	LD0.LSHDPTRC5.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

OLATCC1: On-load tap changer controller

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
OLATCC1	COLTC(1)	90V(1)	INP			Channel							TAP_POS	(ACT input channel)			
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.LTCBlk.stVal	SPC	BOOLEAN	ST	B	0				LTC_BLOCK	External signal for blocking		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.VRed.stVal	SPC	BOOLEAN	ST	B	0				RSV	Reduce set voltage active		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf1TapPos.stVal	INS	INT32	ST	B	0				TR1_TAP_POS	Integer value representing tap changer position of transformer 1	-36...36	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf2TapPos.stVal	INS	INT32	ST	B	0				TR2_TAP_POS	Integer value representing tap changer position of transformer 2	-36...36	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf3TapPos.stVal	INS	INT32	ST	B	0				TR3_TAP_POS	Integer value representing tap changer position of transformer 3	-36...36	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.TapChgFllw.stVal	INS	INT32	ST		0					(Change follower tap position (stop, lower, higher))			
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.InConSt.stVal	SPS	BOOLEAN	ST	B	0				CON_STATUS	Network connection status of the (own) transformer		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.InLTCOp.stVal	SPS	BOOLEAN	ST	B	0				TCO	Tap changer operating input		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf1A.cVal.mag.f	CMV	FLOAT32	MX	B	0.00				TR1_I_AMPL	Received current magnitude from transformer 1	0.00...15000.00 A	Monitoring\I/O status\Control\OLATCC1\Inputs	

OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf1A.cVal.ang.f	CMV	FLOAT32	MX	B	0.0				TR1_I_ANGL	Received current angle from transformer 1	-180.00...180.00 deg	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf2A.cVal.mag.f	CMV	FLOAT32	MX	B	0.00				TR2_I_AMPL	Received current magnitude from transformer 2	0.00...15000.00 A	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf2A.cVal.ang.f	CMV	FLOAT32	MX	B	0.0				TR2_I_ANGL	Received current angle from transformer 2	-180.00...180.00 deg	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf3A.cVal.mag.f	CMV	FLOAT32	MX	B	0.00				TR3_I_AMPL	Received current magnitude from transformer 3	0.00...15000.00 A	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.Trf3A.cVal.ang.f	CMV	FLOAT32	MX	B	0.0				TR3_I_ANGL	Received current angle from transformer 3	-180.00...180.00 deg	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.TapChgR.stVal	SPS	BOOLEAN	ST	B	0				RAISE_LOCAL	Raise command input from configuration		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.TapChgL.stVal	SPS	BOOLEAN	ST	B	0				LOWER_LOCAL	Lower command input from configuration		Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.InAuto.stVal	SPS	BOOLEAN	ST		0					(Input auto operation)			
OLATCC1	COLTC(1)	90V(1)	INP	LD0.OLATCC1.InParOp.stVal	SPS	BOOLEAN	ST		0					(Input parallel operation)			
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.ParOp.stVal	SPC	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	PARALLEL	Parallel or single operation		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.Auto.stVal	SPC	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	AUTO	Auto/Manual indication		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpErr.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Alarm status		Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpR.stVal	SPS	BOOLEAN	ST	B		StatIO	P,T	MB,DN,I3	RAISE_OWN	Raise command for own transformer		Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpL.stVal	SPS	BOOLEAN	ST	B		StatIO	P,T	MB,DN,I3	LOWER_OWN	Lower command for own transformer		Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.LTCBlkAHi.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	BLKD_I_LOD	Indication of over current blocking		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.LTCBlkVLo.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	BLKD_U_UN	Indication of under voltage blocking		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.Blk.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	BLKD_LTCBLK	Indication of external blocking		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.ErrPar.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	PAR_FAIL	Parallel failure detected		Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpFllw1.stVal	INS	INT32	ST	B					FLLW1_CTL	Lower/Raise command for follower transformer 1 in the Master/Follower operation mode	0...2	Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpFllw2.stVal	INS	INT32	ST	B					FLLW2_CTL	Lower/Raise command for follower transformer 2 in the Master/Follower operation mode	0...2	Monitoring\I/O status\Control\OLATCC1\Outputs	

OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.TapOpFllw3.stVal	INS	INT32	ST	B					FLLW3_CTL	Lower/Raise command for follower transformer 3 in the Master/Follower operation mode	0...2	Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.LTCRnbk.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	RNBK_U_OV	Indication of raise voltage runback		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.CircAHiBlk.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	BLKD_I_CIR	Indication of high circulating current blocking		Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	OUT	LD0.OLATCC1.CtlDlSt.stVal	SPS	BOOLEAN	ST							(Timer on)			
OLATCC1	COLTC(1)	90V(1)	CTR	LD0.OLATCC1.TapChg.Oper.ctlVal	BSC	Tcmd	CO	B	0			MB,DN,I3	Manual control	Manual control	0=Cancel; 1=Lower; 2=Raise	Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	CTR	LD0.OLATCC1.ParOp.Oper.ctlVal	SPC	BOOLEAN	CO							(Parallel/Independent operation)			
OLATCC1	COLTC(1)	90V(1)	CTR	LD0.OLATCC1.Auto.Oper.ctlVal	SPC	BOOLEAN	CO							(Automatic/Manual operation)			
OLATCC1	COLTC(1)	90V(1)	CTR	LD0.OLATCC1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				OLATCC1 counter	OLATCC1 counter reset	0=Cancel; 1=Clear	Clear\Clear	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.Beh.stVal	ENS	Enum	ST	B					OLATCC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.OpCntRs.stVal	INC	INT32	ST	B					OPR_CNT	Total number of raise and lower commands given in the manual and automatic modes	0...2147483647	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.TapChg.valWTr.posVal	BSC	INT8	ST	B					TAP_POS	Integer value representing tap changer position of own transformer	-36...36	Monitoring\I/O status\Control\OLATCC1\Inputs	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.CtlV.mag.f	MV	FLOAT32	MX	B					U_CTL	Control voltage, Up, target voltage level	0.000...3.000 xUn	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.CircA.mag.f	MV	FLOAT32	MX	B					I_CIR	Calculated circulating current - calculated in operation modes NRP and MCC	-10.00...10.00 xIn	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.LodAVec.cVal.mag.f	CMV	FLOAT32	MX	B					TR0_I_AMPL	Transmitted current magnitude	0.00...15000.00 A	Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.LodAVec.cVal.ang.f	CMV	FLOAT32	MX	B					TR0_I_ANGL	Transmitted current angle	-180.00...180.00 deg	Monitoring\I/O status\Control\OLATCC1\Outputs	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.VMeas.mag.f	MV	FLOAT32	MX	B					U_MEAS	Phase-to-phase voltage, average filtered	0.00...5.00 xUn	Monitoring\I/O status\Control\OLATCC1\Monitored data	UL1TVTR1
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.AngVAPhA.mag.f	MV	FLOAT32	MX	B					ANGL_UA_IA	Measured angle value between phase A voltage and current	-180...180 deg	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.CtlDlOn.stVal	ENS	Enum	ST	B		StatIed	P,H	MB,DN	TIMER_STS	Timer T1, T2 or fast lower timer active	0=Timer off; 1=Lower timer1 on; 2=Raise timer1 on; 3=Lower timer2 on; 4=Raise timer2 on; 5=Fast lower T on	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.CtlOpModSt.stVal	ENS	Enum	ST	B		StatNrml	P,H	MB,DN	OPR_MODE_STS	The acting operation mode of the function block	0=Not in use; 1=Manual; 2=Auto single; 3=Auto master; 4=Auto follower; 5=MCC; 6=NRP	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.CtlVDif.mag.f	MV	FLOAT32	MX	B					UD_CTL	Voltage difference between Measured voltage - Control Voltage: Um - Up	-2.000...2.000 xUn	Monitoring\I/O status\Control\OLATCC1\Monitored data	

OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.ClcLDC.mag.f	MV	FLOAT32	MX	B					LDC	Calculated line drop compensation	-2.00...2.00 xUn	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.BlkSt.stVal	INS	INT32	ST	B					BLK_STATUS	Bit-coded output showing the blocking status for the next operation	0...127	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.AlmReas.stVal	ENS	Enum	ST	B					ALARM_REAS	Status and reason for alarm	0=No alarm; 1=Cmd error; 2=TCO error; 3=Cmd + TCO err; 4=Pump error; 5=Pump + cmd err; 6=Pump + TCO err; 7=Pmp+TCO+cmd err	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.FllwFlt.stVal	ENS	Enum	ST	B					FAIL_FLLW	Failed followers	0=No failed followers; 1=Follower 1; 2=Follower 2; 3=Followers 1+2; 4=Follower 3; 5=Followers 1+3; 6=Followers 2+3; 7=Followers 1+2+3	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.NumParUnit.stVal	ENS	Enum	ST	B					PAR_UNIT_MCC	Parallel units included in MCC calculation	0=No parall units; 1=Trafo 1; 2=Trafo 2; 3=Trafos 1 and 2; 4=Trafo 3; 5=Trafos 1 and 3; 6=Trafos 2 and 3; 7=Trafos 1+2+3	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	MON	LD0.OLATCC1.OpTmhNum.stVal	INS	INT32	ST	B					OP_TM_NUM_H	Number of controls for own tap changer during last hour	0...2147483647	Monitoring\I/O status\Control\OLATCC1\Monitored data	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.BndCtr.setMag.f	ASG	FLOAT32	SG	B	1.000				Band center voltage	Band center voltage Us	0.000...2.000 xUn	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.BndWid.setMag.f	ASG	FLOAT32	SP	B	3.00				Band width voltage	Allowed deviation of the control voltage	1.20...18.00 %Un	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.CtlDlTmms.setVal	ING	INT32	SG	B	60000				Control delay time 1	Control delay time for the first control pulse	1000...300000 ms	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.CtlDl2Tmms.setVal	ING	INT32	SG	B	30000				Control delay time 2	Control delay time for the following control pulses	1000...300000 ms	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LDCR.setMag.f	ASG	FLOAT32	SG	B	0.0				Line drop V Ris	Resistive line-drop compensation factor	0.0...25.0 %	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LDCX.setMag.f	ASG	FLOAT32	SG	B	0.0				Line drop V React	Reactive line-drop compensation factor	0.0...25.0 %	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.RnbkRV.setMag.f	ASG	FLOAT32	SP	B	1.25				Runback raise V	Voltage limit, where fast lower commands takes place	0.80...2.40 xUn	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LimLodA.setMag.f	ASG	FLOAT32	SP	B	2.00				Load current limit	Load current blocking limit	0.10...5.00 xIn	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.TmDlChr.setVal	SPG	BOOLEAN	SP	B	1				Delay characteristic	Selection of delay characteristic	0=Inverse time; 1=Definite time	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.VRedVal.setMag.f	ASG	FLOAT32	SG	B	0.00				Band reduction	Step size for reduce set voltage (RSV)	0.00...9.00 %Un	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.TapBlkR.setVal	ING	INT32	SP	B	17				Raise block tap	Tap changer limit position which gives highest voltage on the regulated side	-36...36	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.TapBlkL.setVal	ING	INT32	SP	B	0				Lower block tap	Tap changer limit position which gives lowest voltage on the regulated side	-36...36	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.BlkVLo.setMag.f	ASG	FLOAT32	SP	B	0.70				Block lower voltage	Voltage limit, where further voltage lowering commands are blocked	0.10...1.20 xUn	Settings\Settings\Control\OLATCC1	

OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.ParTrfMod.setVal	ENG	Enum	SG	B	2				Auto parallel mode	Parallel mode selection	2=Auto master; 3=Auto follower; 5=NRP; 7=MCC	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LodPhAng.setMag.f	ASG	FLOAT32	SG	B	0				Load phase angle	Load phase-shift, used only with the negative reactance principle	-89...89 deg	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.StabFact.setMag.f	ASG	FLOAT32	SG	B	0.0				Stability factor	Stability factor in parallel operation	0.0...70.0 %	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.VCtlOpMod.setVal	ENG	Enum	SP	B	5				Operation mode	The operation mode	1=Manual; 2=Auto single; 3=Auto parallel; 4=Input control; 5=Command	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LTCPlsTmms.setVal	ING	INT32	SP	B	1500				LTC pulse time	Output pulse duration, common for raise and lower pulses	500...10000 ms	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.ManBlkTyp.setVal	ENG	Enum	SP	B	2				Custom Man blocking	Customized manual blocking	1=Custom disabled; 2=OC; 3=UV; 4=OC, UV; 5=EXT; 6=OC, EXT; 7=UV, EXT; 8=OC, UV, EXT	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LimCircA.setMag.f	ASG	FLOAT32	SP	B	0.15				Cir current limit	Blocking limit for high circulating current	0.10...5.00 xIn	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LimLDC.setMag.f	ASG	FLOAT32	SP	B	0.10				LDC limit	Maximum limit for line drop compensation term	0.00...2.00 xUn	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.LDCEna.setVal	SPG	BOOLEAN	SP	B	1				LDC enable	Selection for line drop compensation		Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.RPFAllw.setVal	SPG	BOOLEAN	SP	A	0				Rv Pwr flow allowed	Reverse power flow allowed		Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.OpTmhMax.setVal	ING	INT32	SP	A	100				Max operations in 1h	Allowed number of controls per one hour sliding window	0...10000	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.CmdErrTms.setVal	ING	INT32	SP	A	20				Cmd error delay time	Time delay before command error will be activated	10...50 s	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.FllwDlTms.setVal	ING	INT32	SP	A	6				Follower delay time	Time delay between successive follower commands by a master	6...20 s	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.AlmEna.setVal	SPG	BOOLEAN	SP	A	1				Alarms enabled	Alarm selection		Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	SET	LD0.OLATCC1.ParTrfNum.setVal	ING	INT32	SP	B,I	0				Parallel trafos	Number of parallel transformers in addition to own transformer	0...10	Settings\Settings\Control\OLATCC1	
OLATCC1	COLTC(1)	90V(1)	TES	LD0.OLATCC1.TestCtl.Oper.ctlVal	ENC	Enum	CO	B	1				OLATCC1	Test control for outputs	0=Reset; 3=Activate ALARM; 4=Deactive ALARM; 23=Activate RAISE; 24=Deactive RAISE; 27=Activate LOWER; 28=Deactive LOWER; 27=Activate PAR_FAIL; 28=Deactive PAR_FAIL	Tests\Function tests\Control	
OLATCC1	COLTC(1)	90V(1)	VER	LD0.OLATCC1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

RESVMMXU2: Residual voltage measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

RESVMMXU2	Uo(2)	Vn(2)	INP	LD0.RESVMMXU2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\RESVMMXU2\Inputs	
RESVMMXU2	Uo(2)	Vn(2)	OUT	LD0.RESVMMXU2.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\RESVMMXU2\Outputs	
RESVMMXU2	Uo(2)	Vn(2)	OUT	LD0.RESVMMXU2.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\RESVMMXU2\Outputs	
RESVMMXU2	Uo(2)	Vn(2)	CTR	LD0.RESVMMXU2.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(RESVMMXU2 demands)			
RESVMMXU2	Uo(2)	Vn(2)	MON	LD0.RESVMMXU2.PhV.res.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	UoB-kV	Measured residual voltage	0.00...4.00 xUn	Measurements\RESVMMXU2	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	MON	LD0.RESVMMXU2.PhV.res.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_ANGL_RES	Residual voltage angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\RESVMMXU2\Monitored data	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	MON	LD0.RESVMMXU2.PhV.res.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		U_DB_RES	Residual voltage Amplitude, magnitude of reported value	0.00...4.00 xUn	Monitoring\I/O status\Measurements\RESVMMXU2\Monitored data	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	MON	LD0.RESVMMXU2.PhV.res.range	WYE	Enum	MX	B		MeasFlt	P		U_RANGE_RES	Residual voltage Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\RESVMMXU2\Monitored data	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	MON	LD0.RVAVMMXU2.PhV.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	U_DMD_RES	Demand value of residual voltage	0.00...4.00 xUn	Monitoring\I/O status\Measurements\RESVMMXU2\Monitored data	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	CFG	LD0.RESVMMXU2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\RESVMMXU2	
RESVMMXU2	Uo(2)	Vn(2)	CFG	LD0.RESVMMXU2.PhV.res.db	WYE	INT32U	CF	B,I	10000				V deadband res	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\RESVMMXU2	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	CFG	LD0.RESVMMXU2.PhV.res.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	0.20				V Hi high limit res	High alarm voltage limit	0.00...4.00 xUn	Configuration\Measurements\RESVMMXU2	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	CFG	LD0.RESVMMXU2.PhV.res.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	0.05				V high limit res	High warning voltage limit	0.00...4.00 xUn	Configuration\Measurements\RESVMMXU2	RESTVTR2
RESVMMXU2	Uo(2)	Vn(2)	CFG	LD0.RESVMMXU2.VMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\RESVMMXU2	
RESVMMXU2	Uo(2)	Vn(2)	VER	LD0.RESVMMXU2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

Voltage (UoB,VT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Voltage (UoB,VT)			INP			Channel							Uo	(ACT input channel)			
Voltage (UoB,VT)			OUT	LD0.RESTVTR2.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			OUT	LD0.RESTVTR2.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			CFG	LD0.RESTVTR2.VRtg.setMag.f	ASG	FLOAT32	SP	B,I	11.547				Primary voltage	Primary voltage	0.1...440.000 kV	Configuration\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			CFG	LD0.RESTVTR2.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr	Amplitude correction	0.9000...1.1000	Configuration\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			CFG	LD0.RESTVTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle correction	Angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			CFG	LD0.RESTVTR2.VRtgScy.setMag.f	ASG	FLOAT32	SP	B,I	100				Secondary voltage	Secondary voltage	60...210 V	Configuration\Analog inputs\Voltage (UoB,VT)	
Voltage (UoB,VT)			VER	LD0.RESTVTR2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

DQPTUV1: Directional reactive power and under voltage protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	INP	LD0.DQPTUV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DQPTUV1\Inputs	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	OUT	LD0.DQPTUV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DQPTUV1\Outputs	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	OUT	LD0.DQPTUV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DQPTUV1\Outputs	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	MON	LD0.DQPTUV1.Beh.stVal	ENS	Enum	ST	B					DQPTUV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	MON	LD0.DQPTUV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DQPTUV1\Monitored data	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	MON	LD0.DQMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...+160.000 xSn	Monitoring\I/O status\Power protection\DQPTUV1\Monitored data	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPTUV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DQPTUV1	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPTUV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.85				Voltage start value	Start value for under voltage detection	0.20...1.20 xUn	Settings\Settings\Power protection\DQPTUV1	UL1TVTR1
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPTUV1.OpDlTmms.setVal	ING	INT32	SG	B	500				Operate delay time	Operate delay time	100...300000 ms	Settings\Settings\Power protection\DQPTUV1	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPDOP1.StrVal.setMag.f	ASG	FLOAT32	SP	A	0.05				Min reactive power	Minimum reactive power needed for function to operate	0.01...0.50 xSn	Settings\Settings\Power protection\DQPTUV1	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPDOP1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.05				Min Ps Seq current	Minimum positive sequence current	0.02...0.20 xIn	Settings\Settings\Power protection\DQPTUV1	IL1TCTR1
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPDOP1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the positive reactive power direction		Settings\Settings\Power protection\DQPTUV1	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	SET	LD0.DQPDOP1.PwrSectRed.setMag.f	ASG	FLOAT32	SP	A	3				Pwr sector reduction	Power sector reduction	0...10 deg	Settings\Settings\Power protection\DQPTUV1	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	TES	LD0.DQPTUV1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DQPTUV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DQPTUV1	Q>->,3U<(1)	32Q,27(1)	VER	LD0.DQPTUV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

LVRTPTUV1: Low voltage ride through protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LVRTPTUV1	U<RT(1)	27RT(1)	INP	LD0.LVRTPTUV1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\LVRTPTUV1\Inputs	

LVRTPTUV1	U<RT(1)	27RT(1)	OUT	LD0.LVRTPTUV1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\LVRTPTUV1\Outputs	
LVRTPTUV1	U<RT(1)	27RT(1)	OUT	LD0.LVRTPTUV1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\LVRTPTUV1\Outputs	
LVRTPTUV1	U<RT(1)	27RT(1)	MON	LD0.LVRTPTUV1.Beh.stVal	ENS	Enum	ST	B					LVRTPTUV1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Voltage start value	Voltage value below which function starts	0.05...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.NumPt.setVal	ING	INT32	SP	B	3				Active coordinates	Coordinates used for defining LVRT curve	1...10	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt0Tmms.setVal	ING	INT32	SP	B	500				Recovery time 1	1st time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt1Tmms.setVal	ING	INT32	SP	B	1000				Recovery time 2	2nd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt2Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 3	3rd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt3Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 4	4th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt4Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 5	5th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt5Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 6	6th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt6Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 7	7th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt7Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 8	8th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt8Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 9	9th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt9Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 10	10th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt0Ydir.setMag.f	ASG	FLOAT32	SP	B	0.20				Voltage level 1	1st voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt1Ydir.setMag.f	ASG	FLOAT32	SP	B	0.80				Voltage level 2	2nd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt2Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 3	3rd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt3Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 4	4th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt4Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 5	5th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1

LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt5Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 6	6th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt6Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 7	7th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt7Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 8	8th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt8Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 9	9th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.CrvPt9Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 10	10th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV1	UL1TVTR1
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.NumPh.setVal	ENG	Enum	SP	B	4				Num of start phases	Number of faulty phases	4=Exactly 1 of 3; 5=Exactly 2 of 3; 6=Exactly 3 of 3	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	SET	LD0.LVRTPTUV1.VCrtSel.setVal	ENG	Enum	SP	B	4				Voltage selection	Parameter to select voltage for curve monitoring	1=Highest Ph-to-E; 2=Lowest Ph-to-E; 3=Highest Ph-to-Ph; 4=Lowest Ph-to-Ph; 5=Positive Seq	Settings\Settings\Voltage protection\LVRTPTUV1	
LVRTPTUV1	U<RT(1)	27RT(1)	TES	LD0.LVRTPTUV1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				LVRTPTUV1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
LVRTPTUV1	U<RT(1)	27RT(1)	VER	LD0.LVRTPTUV1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

LVRTPTUV2: Low voltage ride through protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LVRTPTUV2	U<RT(2)	27RT(2)	INP	LD0.LVRTPTUV2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\LVRTPTUV2\Inputs	
LVRTPTUV2	U<RT(2)	27RT(2)	OUT	LD0.LVRTPTUV2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\LVRTPTUV2\Outputs	
LVRTPTUV2	U<RT(2)	27RT(2)	OUT	LD0.LVRTPTUV2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\LVRTPTUV2\Outputs	
LVRTPTUV2	U<RT(2)	27RT(2)	MON	LD0.LVRTPTUV2.Beh.stVal	ENS	Enum	ST	B					LVRTPTUV2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Voltage start value	Voltage value below which function starts	0.05...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.NumPt.setVal	ING	INT32	SP	B	3				Active coordinates	Coordinates used for defining LVRT curve	1...10	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt0Tmms.setVal	ING	INT32	SP	B	500				Recovery time 1	1st time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	

LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt1Tmms.setVal	ING	INT32	SP	B	1000				Recovery time 2	2nd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt2Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 3	3rd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt3Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 4	4th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt4Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 5	5th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt5Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 6	6th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt6Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 7	7th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt7Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 8	8th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt8Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 9	9th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt9Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 10	10th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt0Ydir.setMag.f	ASG	FLOAT32	SP	B	0.20				Voltage level 1	1st voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt1Ydir.setMag.f	ASG	FLOAT32	SP	B	0.80				Voltage level 2	2nd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt2Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 3	3rd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt3Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 4	4th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt4Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 5	5th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt5Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 6	6th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt6Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 7	7th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt7Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 8	8th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt8Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 9	9th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.CrvPt9Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 10	10th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV2	UL1TVTR1

LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.NumPh.setVal	ENG	Enum	SP	B	4				Num of start phases	Number of faulty phases	4=Exactly 1 of 3; 5=Exactly 2 of 3; 6=Exactly 3 of 3	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	SET	LD0.LVRTPTUV2.VCrtSel.setVal	ENG	Enum	SP	B	4				Voltage selection	Parameter to select voltage for curve monitoring	1=Highest Ph-to-E; 2=Lowest Ph-to-E; 3=Highest Ph-to-Ph; 4=Lowest Ph-to-Ph; 5=Positive Seq	Settings\Settings\Voltage protection\LVRTPTUV2	
LVRTPTUV2	U<RT(2)	27RT(2)	TES	LD0.LVRTPTUV2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				LVRTPTUV2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
LVRTPTUV2	U<RT(2)	27RT(2)	VER	LD0.LVRTPTUV2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

LVRTPTUV3: Low voltage ride through protection function

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
LVRTPTUV3	U<RT(3)	27RT(3)	INP	LD0.LVRTPTUV3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\LVRTPTUV3\Inputs	
LVRTPTUV3	U<RT(3)	27RT(3)	OUT	LD0.LVRTPTUV3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\LVRTPTUV3\Outputs	
LVRTPTUV3	U<RT(3)	27RT(3)	OUT	LD0.LVRTPTUV3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\LVRTPTUV3\Outputs	
LVRTPTUV3	U<RT(3)	27RT(3)	MON	LD0.LVRTPTUV3.Beh.stVal	ENS	Enum	ST	B					LVRTPTUV3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.90				Voltage start value	Voltage value below which function starts	0.05...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.NumPt.setVal	ING	INT32	SP	B	3				Active coordinates	Coordinates used for defining LVRT curve	1...10	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt0Tmms.setVal	ING	INT32	SP	B	500				Recovery time 1	1st time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt1Tmms.setVal	ING	INT32	SP	B	1000				Recovery time 2	2nd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt2Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 3	3rd time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt3Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 4	4th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt4Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 5	5th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt5Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 6	6th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt6Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 7	7th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt7Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 8	8th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	

LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt8Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 9	9th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt9Tmms.setVal	ING	INT32	SP	B	10000				Recovery time 10	10th time coordinate for defining LVRT curve	0...300000 ms	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt0Ydir.setMag.f	ASG	FLOAT32	SP	B	0.20				Voltage level 1	1st voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt1Ydir.setMag.f	ASG	FLOAT32	SP	B	0.80				Voltage level 2	2nd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt2Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 3	3rd voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt3Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 4	4th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt4Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 5	5th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt5Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 6	6th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt6Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 7	7th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt7Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 8	8th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt8Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 9	9th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.CrvPt9Ydir.setMag.f	ASG	FLOAT32	SP	B	0.90				Voltage level 10	10th voltage coordinate for defining LVRT curve	0.00...1.20 xUn	Settings\Settings\Voltage protection\LVRTPTUV3	UL1TVTR1
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.NumPh.setVal	ENG	Enum	SP	B	4				Num of start phases	Number of faulty phases	4=Exactly 1 of 3; 5=Exactly 2 of 3; 6=Exactly 3 of 3	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	SET	LD0.LVRTPTUV3.VCrtSel.setVal	ENG	Enum	SP	B	4				Voltage selection	Parameter to select voltage for curve monitoring	1=Highest Ph-to-E; 2=Lowest Ph-to-E; 3=Highest Ph-to-Ph; 4=Lowest Ph-to-Ph; 5=Positive Seq	Settings\Settings\Voltage protection\LVRTPTUV3	
LVRTPTUV3	U<RT(3)	27RT(3)	TES	LD0.LVRTPTUV3.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				LVRTPTUV3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Voltage protection	
LVRTPTUV3	U<RT(3)	27RT(3)	VER	LD0.LVRTPTUV3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

VVSPPAM1: Voltage vector shift protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
VVSPPAM1	VS(1)	78V(1)	INP	LD0.VVSPPAM1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Other protection\VVSPPAM1\Inputs	
VVSPPAM1	VS(1)	78V(1)	OUT	LD0.VVSPPAM1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\VVSPPAM1\Outputs	
VVSPPAM1	VS(1)	78V(1)	OUT	LD0.VVSPPAM1.BlkIntnSt.general	ACT	BOOLEAN	ST	B				MB,DN,I3	INT_BLKD	Protection function internally blocked		Monitoring\I/O status\Other protection\VVSPPAM1\Outputs	
VVSPPAM1	VS(1)	78V(1)	MON	LD0.VVSPPAM1.Beh.stVal	ENS	Enum	ST	B					VVSPPAM1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
VVSPPAM1	VS(1)	78V(1)	MON	LD0.VVSPPAM1.VShtPhA.mag.f	MV	FLOAT32	MX	B					VEC_SHT_A_AB	Vector shift for phase to earth voltage A or phase to phase voltage AB	-180.00...180.00 deg	Monitoring\I/O status\Other protection\VVSPPAM1\Monitored data	
VVSPPAM1	VS(1)	78V(1)	MON	LD0.VVSPPAM1.VShtPhB.mag.f	MV	FLOAT32	MX	B					VEC_SHT_B_BC	Vector shift for phase to earth voltage B or phase to phase voltage BC	-180.00...180.00 deg	Monitoring\I/O status\Other protection\VVSPPAM1\Monitored data	
VVSPPAM1	VS(1)	78V(1)	MON	LD0.VVSPPAM1.VShtPhC.mag.f	MV	FLOAT32	MX	B					VEC_SHT_C_CA	Vector shift for phase to earth voltage C or phase to phase voltage CA	-180.00...180.00 deg	Monitoring\I/O status\Other protection\VVSPPAM1\Monitored data	
VVSPPAM1	VS(1)	78V(1)	MON	LD0.VVSPPAM1.VShtPsSeq.mag.f	MV	FLOAT32	MX	B					VEC_SHT_U1	Vector shift for positive sequence voltage	-180.00...180.00 deg	Monitoring\I/O status\Other protection\VVSPPAM1\Monitored data	
VVSPPAM1	VS(1)	78V(1)	SET	LD0.VVSPPAM1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\VVSPPAM1	
VVSPPAM1	VS(1)	78V(1)	SET	LD0.VVSPPAM1.StrVal.setMag.f	ASG	FLOAT32	SG	B	6				Start value	Start value for vector shift	2...30 deg	Settings\Settings\Other protection\VVSPPAM1	
VVSPPAM1	VS(1)	78V(1)	SET	LD0.VVSPPAM1.BlkValV.setMag.f	ASG	FLOAT32	SG	A	0.80				Under Volt Blk value	Voltage below which function will be internally blocked	0.15...1.00 xUn	Settings\Settings\Other protection\VVSPPAM1	UL1TVTR1
VVSPPAM1	VS(1)	78V(1)	SET	LD0.VVSPPAM1.PhSpvn.setVal	ENG	Enum	SP	A	8				Phase supervision	Monitored voltage phase	7=Ph A + B + C; 8=Pos sequence	Settings\Settings\Other protection\VVSPPAM1	
VVSPPAM1	VS(1)	78V(1)	SET	LD0.VVSPPAM1.MaxV.setMag.f	ASG	FLOAT32	SG	A	1.20				Over Volt Blk value	Voltage above which function will be internally blocked	0.40...1.50 xUn	Settings\Settings\Other protection\VVSPPAM1	UL1TVTR1
VVSPPAM1	VS(1)	78V(1)	TES	LD0.VVSPPAM1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	1				VVSPPAM1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 83=Activate INT_BLKD; 84=Deactive INT_BLKD	Tests\Function tests\Other protection	
VVSPPAM1	VS(1)	78V(1)	VER	LD0.VVSPPAM1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

PHPVOC1: Three phase voltage dependent overcurrent protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHPVOC1	3I(U)>(1)	51V(1)	INP	LD0.PHPVOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\PHPVOC1\Inputs	
PHPVOC1	3I(U)>(1)	51V(1)	INP	LD0.PHPVOC1.InEnaMult.stVal	SPS	BOOLEAN	ST	B	0				ENA_MULT	Enable signal for current multiplier		Monitoring\I/O status\Current protection\PHPVOC1\Inputs	

PHPVOC1	3I(U)>(1)	51V(1)	INP	LD0.PHPVOC1.InEnaLoLim.stVal	SPS	BOOLEAN	ST	B	0				ENA_LOW_LIM	Enable signal for voltage dependent lower start value		Monitoring\I/O status\Current protection\PHPVOC1\Inputs	
PHPVOC1	3I(U)>(1)	51V(1)	OUT	LD0.PHPVOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start	(A,B,C)	Monitoring\I/O status\Current protection\PHPVOC1\Outputs	
PHPVOC1	3I(U)>(1)	51V(1)	OUT	LD0.PHPVOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Current protection\PHPVOC1\Outputs	
PHPVOC1	3I(U)>(1)	51V(1)	MON	LD0.PHPVOC1.Beh.stVal	ENS	Enum	ST	B					PHPVOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHPVOC1	3I(U)>(1)	51V(1)	MON	LD0.PHPVOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\PHPVOC1\Monitored data	
PHPVOC1	3I(U)>(1)	51V(1)	MON	LD0.PHPVOC1.EffStrVal.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					EFF_ST_VAL_A	Effective start value for phase A	0.00...50.00 xIn	Monitoring\I/O status\Current protection\PHPVOC1\Monitored data	IL1TCTR1
PHPVOC1	3I(U)>(1)	51V(1)	MON	LD0.PHPVOC1.EffStrVal.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					EFF_ST_VAL_B	Effective start value for phase B	0.00...50.00 xIn	Monitoring\I/O status\Current protection\PHPVOC1\Monitored data	IL1TCTR1
PHPVOC1	3I(U)>(1)	51V(1)	MON	LD0.PHPVOC1.EffStrVal.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					EFF_ST_VAL_C	Effective start value for phase C	0.00...50.00 xIn	Monitoring\I/O status\Current protection\PHPVOC1\Monitored data	IL1TCTR1
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\PHPVOC1	

PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.MinOpTmms.setVal	ING	INT32	SP	A	40				Minimum operate time	Minimum operate time for IDMT curves	40...60000 ms	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\PHPVOC1	IL1TCTR1
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.CtlMod.setVal	ENG	Enum	SP	A	1				Control mode	Type of control	1=Voltage control; 2=Input control; 3=Voltage and input Ctl; 4=No Volt dependency	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.NumPh.setVal	ENG	Enum	SP	B	1				Num of start phases	Number of phases required for operate activation	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.LoStrVal.setMag.f	ASG	FLOAT32	SG	B	0.05				Start value low	Lower start value based on voltage control	0.05...1.00 xIn	Settings\Settings\Current protection\PHPVOC1	IL1TCTR1
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.VHiLim.setMag.f	ASG	FLOAT32	SG	B	1.00				Voltage high limit	Voltage high limit for voltage control	0.01...1.00 xUn	Settings\Settings\Current protection\PHPVOC1	UL1TVTR1
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.VLoLim.setMag.f	ASG	FLOAT32	SG	B	1.00				Voltage low limit	Voltage low limit for voltage control	0.01...1.00 xUn	Settings\Settings\Current protection\PHPVOC1	UL1TVTR1
PHPVOC1	3I(U)>(1)	51V(1)	SET	LD0.PHPVOC1.StrValMult.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value Mult	Multiplier for scaling the start value	0.8...10.0	Settings\Settings\Current protection\PHPVOC1	
PHPVOC1	3I(U)>(1)	51V(1)	TES	LD0.PHPVOC1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				PHPVOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
PHPVOC1	3I(U)>(1)	51V(1)	VER	LD0.PHPVOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

OEPVPH1: Overexcitation protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
OEPVPH1	U/f>(1)	24(1)	INP	LD0.OEPVPH1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal		Monitoring\I/O status\Voltage protection\OEPVPH1\Inputs	
OEPVPH1	U/f>(1)	24(1)	OUT	LD0.OEPVPH1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Started		Monitoring\I/O status\Voltage protection\OEPVPH1\Outputs	
OEPVPH1	U/f>(1)	24(1)	OUT	LD0.OEPVPH1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operated		Monitoring\I/O status\Voltage protection\OEPVPH1\Outputs	

OEPVPH1	U/f>(1)	24(1)	OUT	LD0.OEPVPH1.StrInh.stVal	SPS	BOOLEAN	ST	B					BLK_RESTART	Signal for blocking reconnection of an overheated machine		Monitoring\I/O status\Voltage protection\OEPVPH1\Outputs	
OEPVPH1	U/f>(1)	24(1)	OUT	LD0.OEPVPH1.ClAct.stVal	SPS	BOOLEAN	ST	B					COOL_ACTIVE	Signal to indicate machine is in cooling process		Monitoring\I/O status\Voltage protection\OEPVPH1\Outputs	
OEPVPH1	U/f>(1)	24(1)	MON	LD0.OEPVPH1.Beh.stVal	ENS	Enum	ST	B					OEPVPH1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
OEPVPH1	U/f>(1)	24(1)	MON	LD0.OEPVPH1.VHzRat.mag.f	MV	FLOAT32	MX	B					VOLTPERHZ	Excitation level, i.e U/f ratio or Volts/Hertz	0.00...10.00 pu	Monitoring\I/O status\Voltage protection\OEPVPH1\Monitored data	
OEPVPH1	U/f>(1)	24(1)	MON	LD0.OEPVPH1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time (in %)	0.00...100.00 %	Monitoring\I/O status\Voltage protection\OEPVPH1\Monitored data	
OEPVPH1	U/f>(1)	24(1)	MON	LD0.OEPVPH1.TmsRecEna.stVal	INS	INT32	ST	B					T_ENARESTART	Estimated time to reset of block restart	0...10000 s	Monitoring\I/O status\Voltage protection\OEPVPH1\Monitored data	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Mode Off / On	1=on; 5=off	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.VHzCrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 17=OvExt IDMT Crv1; 18=OvExt IDMT Crv2; 19=OvExt IDMT Crv3; 20=OvExt IDMT Crv4	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.StrVal.setMag.f	ASG	FLOAT32	SG	B	100				Start value	Over excitation start value	100...200 %	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.OpDlTmms.setVal	ING	INT32	SG	B	500				Operate delay time	Operate delay time in definite- time mode	200...200000 ms	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.RsDlTmms.setVal	ING	INT32	SP	A	100				Reset delay time	Resetting time of the operate time counter in DT mode	0...60000 ms	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.TmMult.setMag.f	ASG	FLOAT32	SG	B	3.0				Time multiplier	Time multiplier for Overexcitation IDMT curves	0.1...100.0	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.MinOpTmms.setVal	ING	INT32	SP	A	200				Minimum operate time	Minimum operate time for IDMT curves	200...60000 ms	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.MaxOpTmms.setVal	ING	INT32	SP	B	1000000				Maximum operate time	Maximum operate time for IDMT curves	500000...10000000 ms	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.MaxVCont.setMag.f	ASG	FLOAT32	SP	B	110				Voltage Max Cont	Maximum allowed continuous operating voltage ratio	80...160 %	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.ClTms.setVal	ING	INT32	SP	B	600				Cooling time	Time required to cool the machine	5...10000 s	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.ConsDlTmms.setVal	ING	INT32	SP	B	800				Constant delay	Parameter constant delay	100...120000 ms	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.XLeak.setMag.f	ASG	FLOAT32	SP	B	0.0				Leakage React	Leakage reactance of the machine	0.0...50.0 %	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.VSel.setVal	ENG	Enum	SP	B	3				Voltage selection	Selection of phase / phase-to-phase / pos sequence voltages	1=phase-to-earth; 2=phase-to-phase; 3=pos sequence	Settings\Settings\Voltage protection\OEPVPH1	
OEPVPH1	U/f>(1)	24(1)	SET	LD0.OEPVPH1.VPhSel.setVal	ENG	Enum	SP	B	1				Phase selection	Parameter for phase selection	1=A or AB; 2=B or BC; 3=C or CA	Settings\Settings\Voltage protection\OEPVPH1	

OEPVPH1	U/f>(1)	24(1)	TES	LD0.OEPVPH1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				OEPVPH1	Test	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -9=Activate BLK_RESTART; -10=Deactive BLK_RESTART; -65=Activate COOL_ACTIVE; -66=Deactive COOL_ACTIVE	Tests\Function tests\Voltage protection	
OEPVPH1	U/f>(1)	24(1)	VER	LD0.OEPVPH1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

TRPPTRC6: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TRPPTRC6	Master Trip(6)	94/86(6)	INP	LD0.TRPPTRC6.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC6\Inputs	
TRPPTRC6	Master Trip(6)	94/86(6)	INP	LD0.TRPPTRC6.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC6\Inputs	
TRPPTRC6	Master Trip(6)	94/86(6)	INP	LD0.TRPPTRC6.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC6\Inputs	
TRPPTRC6	Master Trip(6)	94/86(6)	OUT	LD0.TRPPTRC6.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC6\Outputs	
TRPPTRC6	Master Trip(6)	94/86(6)	OUT	LD0.TRPPTRC6.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC6\Outputs	
TRPPTRC6	Master Trip(6)	94/86(6)	CTR	LD0.TRPPTRC6.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC6	Reset TRPPTRC6 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC6	Master Trip(6)	94/86(6)	CTR	LD0.TRPPTRC6.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC6	Master Trip(6)	94/86(6)	MON	LD0.TRPPTRC6.Beh.stVal	ENS	Enum	ST	B					TRPPTRC6	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC6	Master Trip(6)	94/86(6)	CFG	LD0.TRPPTRC6.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC6	
TRPPTRC6	Master Trip(6)	94/86(6)	CFG	LD0.TRPPTRC6.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC6	
TRPPTRC6	Master Trip(6)	94/86(6)	CFG	LD0.TRPPTRC6.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC6	
TRPPTRC6	Master Trip(6)	94/86(6)	VER	LD0.TRPPTRC6.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

H3EFPSEF1: Third harmonic stator earth-fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	INP	LD0.H3EFPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Voltage protection\H3EFPSEF1\Inputs	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	INP	LD0.H3EFPTOV1.InGnCBPos.stVal	SPS	BOOLEAN	ST	B	0				GCB_CLOSED	Generator CB in closed position		Monitoring\I/O status\Voltage protection\H3EFPSEF1\Inputs	

H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	OUT	LD0.H3EFPTRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Voltage protection\H3EFPSEF1\Outputs	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	OUT	LD0.H3EFPTRC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Voltage protection\H3EFPSEF1\Outputs	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	OUT	LD0.H3EFPTOV1.BlkIntnSt.general	ACT	BOOLEAN	ST	B				MB,DN,I3	INT_BLKD	Protection internally blocked		Monitoring\I/O status\Voltage protection\H3EFPSEF1\Outputs	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTRC1.Beh.stVal	ENS	Enum	ST	B					H3EFPSEF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.Dif3HV.mag.f	MV	FLOAT32	MX	B					UD_3H	3rd harmonic differential voltage amplitude	0.00...40.00 xUn	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	RESTVTR1
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.Bias3HV.mag.f	MV	FLOAT32	MX	B					UB_3H	3rd harmonic bias voltage amplitude	0.00...40.00 xUn	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	RESTVTR2
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.Term3HV.mag.f	MV	FLOAT32	MX	B					U_3H_T	Terminal side 3rd harmonic voltage amplitude	0.00...40.00 xUn	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	RESTVTR1
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.Neut3HV.mag.f	MV	FLOAT32	MX	B					U_3H_N	Neutral side 3rd harmonic voltage amplitude	0.00...40.00 xUn	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	RESTVTR2
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.Ang3HVTerN.mag.f	MV	FLOAT32	MX	B					U_3HANGL_T_N	Phase angle between 3rd harmonic terminal and neutral voltage	-180.00...180.00 deg	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTOV1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	MON	LD0.H3EFPTUV1.Neut3HV.mag.f	MV	FLOAT32	MX	B					U_3H_N	Neutral side 3rd harmonic voltage amplitude	0.00...40.00 xUn	Monitoring\I/O status\Voltage protection\H3EFPSEF1\Monitored data	RESTVTR2
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.OpDlTmms.setVal	ING	INT32	SG	B	20				Operate delay time	Operate delay time	20...300000 ms	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.BlkVal.setMag.f	ASG	FLOAT32	SP	A	0.010				Voltage block value	Low level blocking for 3rd harmonic differential protection	0.010...0.100 xUn	Settings\Settings\Voltage protection\H3EFPSEF1	RESTVTR1
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.Beta.setMag.f	ASG	FLOAT32	SG	B	3.00				Beta	Portion of neutral side 3rd harmonic used as bias	0.50...10.00	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.TermVSel.setVal	ENG	Enum	SG	A	2				Voltage selection	Type of voltage connection available at generator terminal	1=No voltage; 2=Measured Uo; 3=Calculated Uo; 4=Phase A; 5=Phase B; 6=Phase C	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.CBOpnFact.setMag.f	ASG	FLOAT32	SG	A	1.00				CB open factor	Multiplication factor for beta when CB is in open condition	1.00...10.00	Settings\Settings\Voltage protection\H3EFPSEF1	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTOV1.GnCBUsed.setVal	SPG	BOOLEAN	SP	A	0				Generator CB used	Defines if generator circuit breaker exists	0=No; 1=Yes	Settings\Settings\Voltage protection\H3EFPSEF1	

H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	SET	LD0.H3EFPTUV1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage N 3.H Lim	Start value for 3rd harmonic residual undervoltage protection	0.005...0.200 xUn	Settings\Settings\Voltage protection\H3EFPSEF1	RESTVTR2
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	TES	LD0.H3EFPTRC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	1				H3EFPSEF1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -57=Activate INT_BLKD; -58=Deactive INT_BLKD	Tests\Function tests\Voltage protection	
H3EFPSEF1	dUo>/Uo3H(1)	27/59THD(1)	VER	LD0.H3EFPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

DUPPDPR1: Under power protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DUPPDPR1	P<(1)	32U(1)	INP	LD0.DPPDUP1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DUPPDPR1\Inputs	
DUPPDPR1	P<(1)	32U(1)	INP	LD0.DPPDUP1.InDsaSt.stVal	SPS	BOOLEAN	ST	B	0				DISABLE	Signal to block the function during generator startup		Monitoring\I/O status\Power protection\DUPPDPR1\Inputs	
DUPPDPR1	P<(1)	32U(1)	OUT	LD0.DPPDUP1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DUPPDPR1\Outputs	
DUPPDPR1	P<(1)	32U(1)	OUT	LD0.DPPDUP1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DUPPDPR1\Outputs	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPPDUP1.Beh.stVal	ENS	Enum	ST	B					DUPPDPR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPPDUP1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DUPPDPR1\Monitored data	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPMMXU1.TotW.mag.f	MV	FLOAT32	MX	B					P	Active power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR1\Monitored data	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPMMXU1.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR1\Monitored data	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPMMXU1.TotVA.mag.f	MV	FLOAT32	MX	B					S	Apparent power	0.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR1\Monitored data	
DUPPDPR1	P<(1)	32U(1)	MON	LD0.DPMMXU1.TotPFAng.mag.f	MV	FLOAT32	MX	B					PF_ANGLE	Power factor angle	-180.00...180.00 deg	Monitoring\I/O status\Power protection\DUPPDPR1\Monitored data	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.1				Start value	Start value	0.01...2.00 xSn	Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.PwrMeasMod.setVal	ENG	Enum	SP	A	3				Measurement mode	Selection of power calculation method	1=PhsA, PhsB, PhsC; 2=Arone; 3=Pos Seq; 4=PhsAB; 5=PhsBC; 6=PhsCA; 7=PhsA; 8=PhsB; 9=PhsC	Settings\Settings\Power protection\DUPPDPR1	

DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the power direction		Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	SET	LD0.DPPDUP1.DsaTmms.setVal	ING	INT32	SP	A	0				Disable time	Additional wait time after CB closing	0...60000 ms	Settings\Settings\Power protection\DUPPDPR1	
DUPPDPR1	P<(1)	32U(1)	TES	LD0.DPPDUP1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DUPPDPR1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DUPPDPR1	P<(1)	32U(1)	VER	LD0.DPPDUP1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

DUPPDPR2: Under power protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DUPPDPR2	P<(2)	32U(2)	INP	LD0.DPPDUP2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DUPPDPR2\Inputs	
DUPPDPR2	P<(2)	32U(2)	INP	LD0.DPPDUP2.InDsaSt.stVal	SPS	BOOLEAN	ST	B	0				DISABLE	Signal to block the function during generator startup		Monitoring\I/O status\Power protection\DUPPDPR2\Inputs	
DUPPDPR2	P<(2)	32U(2)	OUT	LD0.DPPDUP2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DUPPDPR2\Outputs	
DUPPDPR2	P<(2)	32U(2)	OUT	LD0.DPPDUP2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DUPPDPR2\Outputs	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPPDUP2.Beh.stVal	ENS	Enum	ST	B					DUPPDPR2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPPDUP2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DUPPDPR2\Monitored data	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPMMXU2.TotW.mag.f	MV	FLOAT32	MX	B					P	Active power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR2\Monitored data	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPMMXU2.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR2\Monitored data	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPMMXU2.TotVA.mag.f	MV	FLOAT32	MX	B					S	Apparent power	0.000...160.000 xSn	Monitoring\I/O status\Power protection\DUPPDPR2\Monitored data	
DUPPDPR2	P<(2)	32U(2)	MON	LD0.DPMMXU2.TotPFAng.mag.f	MV	FLOAT32	MX	B					PF_ANGLE	Power factor angle	-180.00...180.00 deg	Monitoring\I/O status\Power protection\DUPPDPR2\Monitored data	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.1				Start value	Start value	0.01...2.00 xSn	Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.PwrMeasMod.setVal	ENG	Enum	SP	A	3				Measurement mode	Selection of power calculation method	1=PhsA, PhsB, PhsC; 2=Arone; 3=Pos Seq; 4=PhsAB; 5=PhsBC; 6=PhsCA; 7=PhsA; 8=PhsB; 9=PhsC	Settings\Settings\Power protection\DUPPDPR2	

DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the power direction		Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	SET	LD0.DPPDUP2.DsaTmms.setVal	ING	INT32	SP	A	0				Disable time	Additional wait time after CB closing	0...60000 ms	Settings\Settings\Power protection\DUPPDPR2	
DUPPDPR2	P<(2)	32U(2)	TES	LD0.DPPDUP2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DUPPDPR2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DUPPDPR2	P<(2)	32U(2)	VER	LD0.DPPDUP2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

DOPPDPR3: Reverse power / Directional over power protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DOPPDPR3	P>/Q>(3)	32R/32O(3)	INP	LD0.DPPDOP3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power protection\DOPPDPR3\Inputs	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	OUT	LD0.DPPDOP3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Power protection\DOPPDPR3\Outputs	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	OUT	LD0.DPPDOP3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Power protection\DOPPDPR3\Outputs	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DPPDOP3.Beh.stVal	ENS	Enum	ST	B					DOPPDPR3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DPPDOP3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Power protection\DOPPDPR3\Monitored data	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DOPMMXU3.TotW.mag.f	MV	FLOAT32	MX	B					P	Active power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR3\Monitored data	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DOPMMXU3.TotVAr.mag.f	MV	FLOAT32	MX	B					Q	Reactive power	-160.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR3\Monitored data	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DOPMMXU3.TotVA.mag.f	MV	FLOAT32	MX	B					S	Apparent power	0.000...160.000 xSn	Monitoring\I/O status\Power protection\DOPPDPR3\Monitored data	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	MON	LD0.DOPMMXU3.TotPFAng.mag.f	MV	FLOAT32	MX	B					PF_ANGLE	Power factor angle	-180.00...180.00 deg	Monitoring\I/O status\Power protection\DOPPDPR3\Monitored data	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.StrVal.setMag.f	ASG	FLOAT32	SG	B	1.0				Start value	Start value	0.01...2.00 xSn	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.OpDlTmms.setVal	ING	INT32	SG	B	40				Operate delay time	Operate delay time	40...300000 ms	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.PwrMeasMod.setVal	ENG	Enum	SP	B	3				Measurement mode	Selection of power calculation method	1=PhsA, PhsB, PhsC; 2=Arone; 3=Pos Seq; 4=PhsAB; 5=PhsBC; 6=PhsCA; 7=PhsA; 8=PhsB; 9=PhsC	Settings\Settings\Power protection\DOPPDPR3	

DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Reverse the definition of the power direction		Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	SET	LD0.DPPDOP3.PwrAng.setMag.f	ASG	FLOAT32	SG	B	0				Power angle	Adjustable angle for power	-90...90 deg	Settings\Settings\Power protection\DOPPDPR3	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	TES	LD0.DPPDOP3.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				DOPPDPR3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Power protection	
DOPPDPR3	P>/Q>(3)	32R/32O(3)	VER	LD0.DPPDOP3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

UEXPDIS1: Under Excitation protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
UEXPDIS1	X<(1)	40(1)	INP	LD0.UEXPDIS1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Impedance protection\UEXPDIS1\Inputs	
UEXPDIS1	X<(1)	40(1)	INP	LD0.UEXPDIS1.InExLos.stVal	SPS	BOOLEAN	ST	B	0				EXT_LOS_DET	External signal for excitation loss detection		Monitoring\I/O status\Impedance protection\UEXPDIS1\Inputs	
UEXPDIS1	X<(1)	40(1)	OUT	LD0.UEXPDIS1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Impedance protection\UEXPDIS1\Outputs	
UEXPDIS1	X<(1)	40(1)	OUT	LD0.UEXPDIS1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Impedance protection\UEXPDIS1\Outputs	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXPDIS1.Beh.stVal	ENS	Enum	ST	B					UEXPDIS1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXPDIS1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time (in %)	0.00...100.00 %	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					Z_AMPL_A	Impedance amplitude phase A	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsA.cVal.ang.f	WYE	FLOAT32	MX	B					Z_ANGLE_A	Impedance angle phase A	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					Z_AMPL_B	Impedance amplitude phase B	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsB.cVal.ang.f	WYE	FLOAT32	MX	B					Z_ANGLE_B	Impedance angle phase B	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					Z_AMPL_C	Impedance amplitude phase C	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.Z.phsC.cVal.ang.f	WYE	FLOAT32	MX	B					Z_ANGLE_C	Impedance angle phase C	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_AB	Phase-to-phase A-B impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsAB.cVal.ang.f	DEL	FLOAT32	MX	B					Z_ANGLE_AB	Phase-to-phase A-B impedance phase angle	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_BC	Phase-to-phase B-C impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsBC.cVal.ang.f	DEL	FLOAT32	MX	B					Z_ANGLE_BC	Phase-to-phase B-C impedance phase angle	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	

UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_CA	Phase-to-phase C-A impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPP.phsCA.cVal.ang.f	DEL	FLOAT32	MX	B					Z_ANGLE_CA	Phase-to-phase C-A impedance phase angle	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPs.cVal.mag.f	CMV	FLOAT32	MX	B					Z1_AMPL	Positive sequence impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	MON	LD0.UEXMMXU1.ZPs.cVal.ang.f	CMV	FLOAT32	MX	B					Z1_ANGLE	Positive sequence impedance phase angle	-180.00...180.00 deg	Monitoring\I/O status\Impedance protection\UEXPDIS1\Monitored data	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.PoRch.setMag.f	ASG	FLOAT32	SG	B	200				Diameter	Diameter of the Mho diagram	1...6000 %Zn	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.Ofs.setMag.f	ASG	FLOAT32	SG	B	-10				Offset	Offset of top of the impedance circle from the R-axis	-1000...1000 %Zn	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.OpDlTmms.setVal	ING	INT32	SG	B	5000				Operate delay time	Operate delay time	60...200000 ms	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.RsDlTmms.setVal	ING	INT32	SP	A	3000				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.Dsp.setMag.f	ASG	FLOAT32	SG	B	0				Displacement	Displacement of impedance circle centre from the X-axis	-1000...1000 %Zn	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.ZMeasMod.setVal	ENG	Enum	SP	B	5				Impedance Meas mode	Select voltage and currents for impedance calculation	1=1Phase-to-earth; 2=1Phase-to-phase; 3=3Phase-to-earth; 4=3Phase-to-phase; 5=Pos sequence	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.PhSelZClc.setVal	ENG	Enum	SP	B	1				Phase Sel for Z Clc	Voltage phase selection	1=A or AB; 2=B or BC; 3=C or CA	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.ExLosEna.setVal	SPG	BOOLEAN	SP	B	1				External Los Det Ena	Enable external excitation loss detection	0=Disable; 1=Enable	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	SET	LD0.UEXPDIS1.VRv.setVal	SPG	BOOLEAN	SP	B	0				Voltage reversal	Rotate voltage signals by 180 degrees	0=No; 1=Yes	Settings\Settings\Impedance protection\UEXPDIS1	
UEXPDIS1	X<(1)	40(1)	TES	LD0.UEXPDIS1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				UEXPDIS1	Test	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Impedance protection	
UEXPDIS1	X<(1)	40(1)	VER	LD0.UEXPDIS1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

UZPDIS1: Under impedance protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
UZPDIS1	Z<G(1)	21G(1)	INP	LD0.UZPDIS1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Impedance protection\UZPDIS1\Inputs	
UZPDIS1	Z<G(1)	21G(1)	OUT	LD0.UZPDIS1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Impedance protection\UZPDIS1\Outputs	
UZPDIS1	Z<G(1)	21G(1)	OUT	LD0.UZPDIS1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Impedance protection\UZPDIS1\Outputs	

UZPDIS1	Z<G(1)	21G(1)	MON	LD0.UZPDIS1.Beh.stVal	ENS	Enum	ST	B					UZPDIS1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
UZPDIS1	Z<G(1)	21G(1)	MON	LD0.UZPDIS1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time (in %)	0.00...100.00 %	Monitoring\I/O status\Impedance protection\UZPDIS1\Monitored data	
UZMMXU1			MON	LD0.UZMMXU1.ZPP.phsAB.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_AB	Phase-to-phase A-B impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UZPDIS1\Monitored data	
UZMMXU1			MON	LD0.UZMMXU1.ZPP.phsBC.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_BC	Phase-to-phase B-C impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UZPDIS1\Monitored data	
UZMMXU1			MON	LD0.UZMMXU1.ZPP.phsCA.cVal.mag.f	DEL	FLOAT32	MX	B					Z_AMPL_CA	Phase-to-phase C-A impedance amplitude	0.00...200.00 xZn	Monitoring\I/O status\Impedance protection\UZPDIS1\Monitored data	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.PoRch.setMag.f	ASG	FLOAT32	SG	B	7				Percentage reach	Radius of the origin centric circle	1...6000 %Zn	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.OpDlTmms.setVal	ING	INT32	SG	B	200				Operate delay time	Operate delay time	40...200000 ms	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.AMeasMod.setVal	ENG	Enum	SP	B	2				Measurement mode	Selects used measurement mode	2=DFT; 3=Peak-to-Peak	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.ZMeasMod.setVal	ENG	Enum	SP	B	4				Impedance Meas mode	Select voltage and current signals for impedance calculation	2=1Phase-to-phase; 4=3Phase-to-phase	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	SET	LD0.UZPDIS1.PhSelZClc.setVal	ENG	Enum	SP	B	1				Phase Sel for Z Clc	Voltage phase selection	1=AB; 2=BC; 3=CA	Settings\Settings\Impedance protection\UZPDIS1	
UZPDIS1	Z<G(1)	21G(1)	TES	LD0.UZPDIS1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	1				UZPDIS1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Impedance protection	
UZPDIS1	Z<G(1)	21G(1)	VER	LD0.UZPDIS1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

OOSRPSB1: Out of step blocking and tripping

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
OOSRPSB1	OOS	78	INP	LD0.OOSRPSB1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Impedance protection\OOSRPSB1\Inputs	
OOSRPSB1	OOS	78	INP	LD0.OOSRPSB1.InDsaSt.stVal	SPC	BOOLEAN	ST	B	0				DISABLE	Disable input		Monitoring\I/O status\Impedance protection\OOSRPSB1\Inputs	
OOSRPSB1	OOS	78	OUT	LD0.OOSRPSB1.Str.general	ACD	BOOLEAN	ST	B					SWING	Swing condition detected		Monitoring\I/O status\Impedance protection\OOSRPSB1\Outputs	
OOSRPSB1	OOS	78	OUT	LD0.OOSRPSB1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OPERATE	Out of step trip on zone 1 or zone 2		Monitoring\I/O status\Impedance protection\OOSRPSB1\Outputs	
OOSRPSB1	OOS	78	OUT	LD0.OOSRPSB1.BlkZn.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OSB	Out of step block for zone 1		Monitoring\I/O status\Impedance protection\OOSRPSB1\Outputs	

OOSRPSB1	OOS	78	OUT	LD0.OOSRPSB1.Blk2Zn.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OSB_Z2	Out of step block for zone 2		Monitoring\I/O status\Impedance protection\OOSRPSB1\Outputs	
OOSRPSB1	OOS	78	OUT	LD0.OOSRPSB1.SwgOp.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	SWING_OP	Out of step trip on zone 3		Monitoring\I/O status\Impedance protection\OOSRPSB1\Outputs	
OOSRPSB1	OOS	78	MON	LD0.OOSRPSB1.Beh.stVal	ENS	Enum	ST	B					OOSRPSB1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
OOSRPSB1	OOS	78	MON	LD0.OOSMMXU1.ZPs.cVal.mag.f	CMV	FLOAT32	MX	B					Z1_AMPL	Positive sequence impedance amplitude	0.00...99999 ohm	Monitoring\I/O status\Impedance protection\OOSRPSB1\Monitored data	
OOSRPSB1	OOS	78	MON	LD0.OOSMMXU1.ZPs.cVal.ang.f	CMV	FLOAT32	MX	B					Z1_ANGLE	Positive sequence impedance phase angle	-180...180 deg	Monitoring\I/O status\Impedance protection\OOSRPSB1\Monitored data	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.SwgTmms.setVal	ING	INT32	SG	B	500				Swing time	Time between blinders for swing to be detected	20...300000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.MaxNumSlp.setVal	ING	INT32	SG	B	1				Max number slips	Number of pole slips before tripping zone 1	1...10	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.OpDlTmms.setVal	ING	INT32	SG	B	300				Trip delay time	Delay after OOS trip detected	20...60000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.PlsTmms.setVal	ING	INT32	SG	B	100				Trip dropout time	Time trip output remains active	20...60000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.RsDlTmms.setVal	ING	INT32	SP	B	5000				Reset time	Time to reset OOS condition and counters	20...60000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.MinPsSeqA.setMag.f	ASG	FLOAT32	SP	B	0.10				Min Ps Seq current	Minimum positive sequence current for operation	0.01...10.00 xIn	Settings\Settings\Impedance protection\OOSRPSB1	IL1TCTR1
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.MaxNgSeqA.setMag.f	ASG	FLOAT32	SP	B	0.20				Max Ng Seq current	Maximum negative sequence current for operation	0.01...10.00 xIn	Settings\Settings\Impedance protection\OOSRPSB1	IL1TCTR1
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.CBOpnTmms.setVal	ING	INT32	SP	B	30				Breaker open time	Opening time of the breaker	0...300 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.DsaTmms.setVal	ING	INT32	SP	B	5000				Disable time	Additional time function is disabled after removal of DISABLE input	20...60000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.VRv.setVal	SPG	BOOLEAN	SP	A	0				Voltage reversal	Rotate voltage signals by 180 degrees	0=No; 1=Yes	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.OoStepMod.setVal	ENG	Enum	SG	B	2				Oos trip mode	Trip mode for tripping when out of step condition is detected	1=Way in; 2=Way out; 3=Adaptive	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.FwdRch.setMag.f	ASG	FLOAT32	SG	B	1000.00				Forward reach	Forward reach of mho circle	0...6000.00 ohm	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.RvRch.setMag.f	ASG	FLOAT32	SG	B	100.00				Reverse reach	Reverse reach of mho circle	0...6000.00 ohm	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.InnrBldRis.setMag.f	ASG	FLOAT32	SG	B	150.00				Inner blinder R	Resistance value if inner blinder at R axis	1.00...6000.00 ohm	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.OutrBldRis.setMag.f	ASG	FLOAT32	SG	B	400.00				Outer blinder R	Resistance value of outer blinder at R axis	1.01...10000.00 ohm	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.ImpAng.setMag.f	ASG	FLOAT32	SG	B	90.0				Impedance angle	Angle of mho circle and blinders with respect to R axis	10.0...90.0 deg	Settings\Settings\Impedance protection\OOSRPSB1	

OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.Zn1Rch.setVal	ING	INT32	SG	A	70				Zone 1 reach	Percent of Mho forward reach indicating the end of zone 1 and the beginning of zone 2	1...100 %	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.MaxNum2Slp.setVal	ING	INT32	SG	B	1				Max Num slips Zn2	Number of pole slips before tripping zone 2	1...20	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.MaxNum3Slp.setVal	ING	INT32	SG	B	1				Max Num slips Zn3	Number of pole slips before tripping zone 3	1...20	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.VDipTmms.setVal	ING	INT32	SG	B	2000				V dip time	Maximum allowable time for voltage to dip	500...5000 ms	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.Zn2Ena.setVal	SPG	BOOLEAN	SG	A	0				Zone 2 enable	Enable zone 2 feature	1=Yes; 0=No	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	SET	LD0.OOSRPSB1.Zn3Ena.setVal	SPG	BOOLEAN	SG	A	0				Zone 3 enable	Enable zone 3 feature	1=Yes; 0=No	Settings\Settings\Impedance protection\OOSRPSB1	
OOSRPSB1	OOS	78	TES	LD0.OOSRPSB1.TestProRl.Oper.ctlVal	ENC	Enum	CO	B	0				OOSRPSB1	Test control for outputs	0=Reset; 1=Activate OPERATE; 2=Deactive OPERATE; 49=Activate SWING_OP; 50=Deactive SWING_OP; 51=Activate SWING; 52=Deactive SWING; 53=Activate OSB; 54=Deactive OSB; 55=Activate OSB_Z2; 56=Deactive OSB_Z2	Tests\Function tests\Impedance protection	
OOSRPSB1	OOS	78	VER	LD0.OOSRPSB1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

MPDIF1: Stabilized three-phase diff. protection for motors

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
MPDIF1	3dI>M/G(1)	87M/G(1)	INP	LD0.MPTRC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Differential prot\MPDIF1\Inputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	INP	LD0.MHPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLK_OPR_HS	Blocks operate outputs from instantaneous stage		Monitoring\I/O status\Differential prot\MPDIF1\Inputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	INP	LD0.MLPDIF1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLK_OPR_LS	Blocks operate outputs from biased stage		Monitoring\I/O status\Differential prot\MPDIF1\Inputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	OUT	LD0.MPTRC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate	(A,B,C)	Monitoring\I/O status\Differential prot\MPDIF1\Outputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	OUT	LD0.MHPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_HS	Operate from high set		Monitoring\I/O status\Differential prot\MPDIF1\Outputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	OUT	LD0.MLPDIF1.Op.general	ACT	BOOLEAN	ST	B					OPR_LS	Operate from low set		Monitoring\I/O status\Differential prot\MPDIF1\Outputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	OUT	LD0.MLPDIF1.BlkIntnSt.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	INT_BLKD	Internal block status	(A,B,C)	Monitoring\I/O status\Differential prot\MPDIF1\Outputs	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MPTRC1.Beh.stVal	ENS	Enum	ST	B					MPDIF1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MPTRC1.Op.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_A	Operate phase A		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MPTRC1.Op.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_B	Operate phase B		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MPTRC1.Op.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPR_C	Operate phase C		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	

MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.DifAClc.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					ID_A	Differential current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.DifAClc.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					ID_B	Differential current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.DifAClc.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					ID_C	Differential current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.RstA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B					IB_A	Biasing current phase A	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.RstA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B					IB_B	Biasing current phase B	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.RstA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B					IB_C	Biasing current phase C	0.00...80.00 xIr	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.BlkIntnSt.phsA	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	INT_BLKD_A	Internal block status phase A		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.BlkIntnSt.phsB	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	INT_BLKD_B	Internal block status phase B		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.BlkIntnSt.phsC	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	INT_BLKD_C	Internal block status phase C		Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinAB.mag.f	MV	FLOAT32	MX	B					I_ANGL_A1_B1	Current phase angle phase A to B, line side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinBC.mag.f	MV	FLOAT32	MX	B					I_ANGL_B1_C1	Current phase angle phase B to C, line side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinCA.mag.f	MV	FLOAT32	MX	B					I_ANGL_C1_A1	Current phase angle phase C to A, line side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngNeutAB.mag.f	MV	FLOAT32	MX	B					I_ANGL_A2_B2	Current phase angle phase A to B, neutral side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngNeutBC.mag.f	MV	FLOAT32	MX	B					I_ANGL_B2_C2	Current phase angle phase B to C, neutral side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngNeutCA.mag.f	MV	FLOAT32	MX	B					I_ANGL_C2_A2	Current phase angle phase C to A, neutral side	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeutA.mag.f	MV	FLOAT32	MX	ED2,B					I_ANGL_A1_A2	Current phase angle diff between line and neutral side, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeuA.mag.f	MV	FLOAT32	MX	ED1					I_ANGL_A1_A2	Current phase angle diff between line and neutral side, Phase A	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeutB.mag.f	MV	FLOAT32	MX	ED2,B					I_ANGL_B1_B2	Current phase angle diff between line and neutral side, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeuB.mag.f	MV	FLOAT32	MX	ED1					I_ANGL_B1_B2	Current phase angle diff between line and neutral side, Phase B	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeutC.mag.f	MV	FLOAT32	MX	ED2,B					I_ANGL_C1_C2	Current phase angle diff between line and neutral side, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	
MPDIF1	3dI>M/G(1)	87M/G(1)	MON	LD0.MLPDIF1.AngLinNeuC.mag.f	MV	FLOAT32	MX	ED1					I_ANGL_C1_C2	Current phase angle diff between line and neutral side, Phase C	-180.00...180.00 deg	Monitoring\I/O status\Differential prot\MPDIF1\Monitored data	

MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MPTRC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MHPDIF1.HiSet.setMag.f	ASG	FLOAT32	SG	B	500				High operate value	Instantaneous stage operate value	100...1000 %Ir	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.LoSet.setMag.f	ASG	FLOAT32	SG	B	5				Low operate value	Basic setting for the stabilized stage start	5...30 %Ir	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.SpeScn2.setMag.f	ASG	FLOAT32	SG	B	30				Slope section 2	Slope of the second line of the operating characteristics	10...50 %	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.SpeScn3.setMag.f	ASG	FLOAT32	SG	A	100				Slope section 3	Slope of the third line of the operating characteristics	10...100 %	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.EndScn1.setMag.f	ASG	FLOAT32	SG	B	50				End section 1	Turn-point between the first and the second line of the operating characteristics	0...100 %Ir	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.EndScn2.setMag.f	ASG	FLOAT32	SG	B	150				End section 2	Turn-point between the second and the third line of the operating characteristics	100...300 %Ir	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.CTConnTyp.setVal	ENG	Enum	SP	B	1				CT connection type	CT connection type. Determined by the directions of the connected current transformers	1=Type 1; 2=Type 2	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.EnaDCBias.setVal	SPG	BOOLEAN	SG	A	0				DC restrain enable	Setting for enabling DC restrain feature		Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.CTRatCor1.setMag.f	ASG	FLOAT32	SP	B	1.00				CT ratio Cor Line	CT ratio correction, line side	0.40...4.00	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	SET	LD0.MLPDIF1.CTRatCor2.setMag.f	ASG	FLOAT32	SP	B	1.00				CT ratio Cor Neut	CT ratio correction, neutral side	0.40...4.00	Settings\Settings\Differential prot\MPDIF1	
MPDIF1	3dI>M/G(1)	87M/G(1)	TES	LD0.MLPDIF1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				MPDIF1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 59=Activate OPR_LS; 60=Deactive OPR_LS; 61=Activate OPR_HS; 62=Deactive OPR_HS; 83=Activate INT_BLKD; 84=Deactive INT_BLKD	Tests\Function tests\Differential prot	
MPDIF1	3dI>M/G(1)	87M/G(1)	VER	LD0.MPTRC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

CMMXU2: Three-phase current measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CMMXU2	3I(2)	3I(2)	INP	LD0.CMMXU2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\CMMXU2\Inputs	
CMMXU2	3I(2)	3I(2)	OUT	LD0.CMMXU2.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\CMMXU2\Outputs	
CMMXU2	3I(2)	3I(2)	OUT	LD0.CMMXU2.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\CMMXU2\Outputs	
CMMXU2	3I(2)	3I(2)	OUT	LD0.CMMXU2.LoWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_WARN	Low warning		Monitoring\I/O status\Measurements\CMMXU2\Outputs	
CMMXU2	3I(2)	3I(2)	OUT	LD0.CMMXU2.LoAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	LOW_ALARM	Low alarm		Monitoring\I/O status\Measurements\CMMXU2\Outputs	

CMMXU2	3I(2)	3I(2)	CTR	LD0.CMMXU2.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(CMMXU2 demands)				
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsA.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	IL1B-A	Measured current amplitude phase A	0.00...40.00 xIn	Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsA.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_ANGL_A	IL1 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_A	IL1 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsA.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_A	IL1 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsB.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	IL2B-A	Measured current amplitude phase B	0.00...40.00 xIn	Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsB.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_ANGL_B	IL2 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_B	IL2 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsB.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_B	IL2 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsC.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	IL3B-A	Measured current amplitude phase C	0.00...40.00 xIn	Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsC.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_ANGL_C	IL3 current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_C	IL3 Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMMXU2.A.phsC.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_C	IL3 Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CAVMMXU2.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_A	Demand value of IL1 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CAVMMXU2.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_B	Demand value of IL2 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CAVMMXU2.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_C	Demand value of IL3 current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\CMMXU2\Monitored data	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL1B	Maximum demand for Phase A	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsA.t	WYE	Timestamp	MX	B					Time max demand IL1B	Time of maximum demand phase A		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL2B	Maximum demand for Phase B	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsB.t	WYE	Timestamp	MX	B					Time max demand IL2B	Time of maximum demand phase B		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand IL3B	Maximum demand for Phase C	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMAMMXU2.A.phsC.t	WYE	Timestamp	MX	B					Time max demand IL3B	Time of maximum demand phase C		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL1B	Minimum demand for Phase A	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsA.t	WYE	Timestamp	MX	B					Time min demand IL1B	Time of minimum demand phase A		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL2B	Minimum demand for Phase B	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2

CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsB.t	WYE	Timestamp	MX	B					Time min demand IL2B	Time of minimum demand phase A		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand IL3B	Minimum demand for Phase C	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	MON	LD0.CMIMMXU2.A.phsC.t	WYE	Timestamp	MX	B					Time min demand IL3B	Time of minimum demand phase A		Monitoring\Recorded data\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\CMMXU2	
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.A.phsA.db	WYE	INT32U	CF	B,I	2500				A deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.A.phsA.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	1.40				A high high limit	High alarm current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.A.phsA.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	1.20				A high limit	High warning current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.A.phsA.rangeC.lLim.f	WYE	FLOAT32	CF	B,I	0.00				A low limit	Low warning current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.A.phsA.rangeC.llLim.f	WYE	FLOAT32	CF	B,I	0.00				A low low limit	Low alarm current limit	0.00...40.00 xIn	Configuration\Measurements\CMMXU2	IL1TCTR2
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\CMMXU2	
CMMXU2	3I(2)	3I(2)	CFG	LD0.CMMXU2.NumPh.setVal	ENG	Enum	SP	B	1				Num of phases	Number of phases required by limit supervision	1=1 out of 3; 2=2 out of 3; 3=3 out of 3	Configuration\Measurements\CMMXU2	
CMMXU2	3I(2)	3I(2)	VER	LD0.CMMXU2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

Current (3I,CT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Current (3I,CT)			INP			Channel							IL1	(ACT input channel)			
Current (3I,CT)			INP			Channel							IL2	(ACT input channel)			
Current (3I,CT)			INP			Channel							IL3	(ACT input channel)			
Current (3I,CT)			OUT	LD0.IL1TCTR1.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Current (3I,CT)	
Current (3I,CT)			OUT	LD0.IL1TCTR1.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL1TCTR1.ARtg.setMag.f	ASG	FLOAT32	SP	B,I	80.0				Primary current	Rated primary current	1.0...6000.0 A	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL1TCTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr A	Phase A amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL1TCTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr A	Phase A angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL1TCTR1.ARtgNom.setMag.f	ASG	FLOAT32	SP	B,I,#	80				Nominal current	Network Nominal Current (In)	39...4000 A	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL1TCTR1.VRtgScyRat.setMag.f	ASG	FLOAT32	SP	B,I,#	3.000				Rated secondary Val	Rated Secondary Value (RSV) ratio	1.000...150.000 mV/Hz	Configuration\Analog inputs\Current (3I,CT)	

Current (3I,CT)			CFG	LD0.IL1TCTR1.RevPol.setVal	SPG	BOOLEAN	SP	A,I	0				Reverse polarity	Reverse the polarity of the phase CTs		Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL2TCTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr B	Phase B amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL2TCTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr B	Phase B angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL3TCTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr C	Phase C amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			CFG	LD0.IL3TCTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr C	Phase C angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3I,CT)	
Current (3I,CT)			VER	LD0.IL1TCTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

Current (Io,CT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Current (Io,CT)			INP			Channel							Io	(ACT input channel)			
Current (Io,CT)			OUT	LD0.RESTCTR1.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Current (Io,CT)	
Current (Io,CT)			OUT	LD0.RESTCTR1.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Current (Io,CT)	
Current (Io,CT)			CFG	LD0.RESTCTR1.ARtg.setMag.f	ASG	FLOAT32	SP	B,I	100.0				Primary current	Primary current	1.0...6000.0 A	Configuration\Analog inputs\Current (Io,CT)	
Current (Io,CT)			CFG	LD0.RESTCTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr	Amplitude correction	0.9000...1.1000	Configuration\Analog inputs\Current (Io,CT)	
Current (Io,CT)			CFG	LD0.RESTCTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle correction	Angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (Io,CT)	
Current (Io,CT)			CFG	LD0.RESTCTR1.ARtgScy.setVal	ENG	Enum	SP	B,I	2				Secondary current	Secondary current	1=0.2A; 2=1A; 3=5A	Configuration\Analog inputs\Current (Io,CT)	
Current (Io,CT)			CFG	LD0.RESTCTR1.RevPol.setVal	SPG	BOOLEAN	SP	A,I	0				Reverse polarity	Reverse the polarity of the residual CT		Configuration\Analog inputs\Current (Io,CT)	
Current (Io,CT)			VER	LD0.RESTCTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

X120 (AIM)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X120 (AIM)	X120 (AIM)	X120 (AIM)	OUT	LD0.XGGIO120.Ind1.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X120-Input 1	Connectors 1-2c		Monitoring\I/O status\Binary input values\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	OUT	LD0.XGGIO120.Ind2.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X120-Input 2	Connectors 3-2c		Monitoring\I/O status\Binary input values\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	OUT	LD0.XGGIO120.Ind3.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X120-Input 3	Connectors 4-2c		Monitoring\I/O status\Binary input values\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	OUT	LD0.XGGIO120.Ind4.stVal	SPS	BOOLEAN	ST	B,#		StatIO	P	MB,DN,I3	X120-Input 4	Connectors 5-6		Monitoring\I/O status\Binary input values\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.FilTmms1.setVal	ING	INT32	SP	B,I	5				Input 1 filter time	Connectors 1-2c	5...1000 ms	Configuration\I/O modules\X120 (AIM)\Input filtering	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.FilTmms2.setVal	ING	INT32	SP	B,I	5				Input 2 filter time	Connectors 3-2c	5...1000 ms	Configuration\I/O modules\X120 (AIM)\Input filtering	

X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.FilTmms3.setVal	ING	INT32	SP	B,I	5				Input 3 filter time	Connectors 4-2c	5...1000 ms	Configuration\I/O modules\X120 (AIM)\Input filtering	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.FilTmms4.setVal	ING	INT32	SP	B,I,#	5				Input 4 filter time	Connectors 5-6	5...1000 ms	Configuration\I/O modules\X120 (AIM)\Input filtering	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.DigInInv1.setVal	SPG	BOOLEAN	SP	A,I	0				Input 1 inversion	Connectors 1-2c		Configuration\I/O modules\X120 (AIM)\Input inversion	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.DigInInv2.setVal	SPG	BOOLEAN	SP	A,I	0				Input 2 inversion	Connectors 3-2c		Configuration\I/O modules\X120 (AIM)\Input inversion	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.DigInInv3.setVal	SPG	BOOLEAN	SP	A,I	0				Input 3 inversion	Connectors 4-2c		Configuration\I/O modules\X120 (AIM)\Input inversion	
X120 (AIM)	X120 (AIM)	X120 (AIM)	CFG	LD0.XGGIO120.DigInInv4.setVal	SPG	BOOLEAN	SP	A,I,#	0				Input 4 inversion	Connectors 5-6		Configuration\I/O modules\X120 (AIM)\Input inversion	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	INF	LD0.XGGIO120.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X120 (AIM)	
X120 (AIM)	X120 (AIM)	X120 (AIM)	VER	LD0.XGGIO120.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			
X120 (AIM)	X120 (AIM)	X120 (AIM)	VER	LD0.XGGIO120.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

Voltage (Uo,VT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Voltage (Uo,VT)			INP			Channel							Uo	(ACT input channel)			
Voltage (Uo,VT)			OUT	LD0.RESTVTR1.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			OUT	LD0.RESTVTR1.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			CFG	LD0.RESTVTR1.VRtg.setMag.f	ASG	FLOAT32	SP	B,I	11.547				Primary voltage	Primary voltage	0.1...440.000 kV	Configuration\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			CFG	LD0.RESTVTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr	Amplitude correction	0.9000...1.1000	Configuration\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			CFG	LD0.RESTVTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle correction	Angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			CFG	LD0.RESTVTR1.VRtgScy.setMag.f	ASG	FLOAT32	SP	B,I	100				Secondary voltage	Secondary voltage	60...210 V	Configuration\Analog inputs\Voltage (Uo,VT)	
Voltage (Uo,VT)			VER	LD0.RESTVTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

X130 (AIM+RTD)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	OUT	LD0.XARGGIO130.AnIn1.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL1	mA input, Connectors 1-2, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Outputs	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	OUT	LD0.XARGGIO130.AnIn2.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL2	RTD input, Connectors 3-4, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Outputs	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	OUT	LD0.XARGGIO130.AnIn3.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL3	RTD input, Connectors 5-6, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Outputs	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	OUT	LD0.XARGGIO130.Alm1.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	General alarm		Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Outputs	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	OUT	LD0.XARGGIO130.Wrn1.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	WARNING	General warning		Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Outputs	

X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB1	mA input, Connectors 1-2, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn1.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE1	mA input, Connectors 1-2, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB2	RTD input, Connectors 3-4, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn2.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE2	RTD input, Connectors 3-4, instantaneous value	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB3	RTD input, Connectors 5-6, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	MON	LD0.XARGGIO130.AnIn3.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE3	RTD input, Connectors 5-6, instantaneous value	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (AIM+RTD)\Monitored data	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn1.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	

X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn2.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.AnIn3.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMinVal1.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMinVal2.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMinVal3.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMaxVal1.setMag.f	ASG	FLOAT32	SP	B,I	20				Input maximum	Maximum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMaxVal2.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMaxVal3.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMod1.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 5=0..20mA	Configuration\I/O modules\X130 (AIM+RTD)\Input 1	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMod2.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (AIM+RTD)\Input 2	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	CFG	LD0.XARGGIO130.InMod3.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (AIM+RTD)\Input 3	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X130 (AIM+RTD)	

X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	INF	LD0.XARGGIO130.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X130 (AIM+RTD)	
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	VER	LD0.XARGGIO130.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			
X130 (AIM+RTD)	X130 (AIM+RTD)	X130 (AIM+RTD)	VER	LD0.XARGGIO130.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

Voltage (3U,VT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Voltage (3U,VT)			INP			Channel		#					UL1	(ACT input channel)			
Voltage (3U,VT)			INP			Channel		#					UL2	(ACT input channel)			
Voltage (3U,VT)			INP			Channel		#					UL3	(ACT input channel)			
Voltage (3U,VT)			INP	LD0.UL1TVTR1.FuFail.stVal	SPS	BOOLEAN	ST	B	0				MINCB_OPEN	Active when external MCB opens protected voltage circuit		Monitoring\I/O status\Analog inputs\Voltage (3U,VT)\Inputs	
Voltage (3U,VT)			OUT	LD0.UL1TVTR1.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Voltage (3U,VT)\Outputs	
Voltage (3U,VT)			OUT	LD0.UL1TVTR1.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Voltage (3U,VT)\Outputs	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.VRtg.setMag.f	ASG	FLOAT32	SP	B,I	20.000				Primary voltage	Primary rated voltage	0.100...440.000 kV	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.Rat.setMag.f	ASG	FLOAT32	SP	B,I,#	10000				Division ratio	Voltage sensor division ratio	1000...20000	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr A	Phase A Voltage phasor magnitude correction of an external voltage transformer	0.9000...1.1000	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr A	Phase A Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.VRtgScy.setMag.f	ASG	FLOAT32	SP	B,I	100				Secondary voltage	Secondary rated voltage	60...210 V	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.VConnTyp.setVal	ENG	Enum	SP	B,I	1				VT connection	Voltage transducer measurement connection	1=Wye; 2=Delta	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL1TVTR1.VInTyp.setVal	ENG	Enum	SP	B,I	3				Voltage input type	Type of the voltage input	1=Voltage trafo; 3=CVD sensor	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL2TVTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr B	Phase B Voltage phasor magnitude correction of an external voltage transformer	0.9000...1.1000	Configuration\Analog inputs\Voltage (3U,VT)	

Voltage (3U,VT)			CFG	LD0.UL2TVTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr B	Phase B Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL3TVTR1.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr C	Phase C Voltage phasor magnitude correction of an external voltage transformer	0.9000...1.1000	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			CFG	LD0.UL3TVTR1.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr C	Phase C Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3U,VT)	
Voltage (3U,VT)			VER	LD0.UL1TVTR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

X120 (AIM2)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	INF	LD0.XAGGIO120.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X120 (AIM2)	
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	VER	LD0.XAGGIO120.NamPlt.swRev	LPL	VisString255 (20)	DC		B					(Name plate)			
X120 (AIM2)	X120 (AIM2)	(X120 (AIM2))	VER	LD0.XAGGIO120.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

Current (3IB,CT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Current (3IB,CT)			INP			Channel							IL1	(ACT input channel)			
Current (3IB,CT)			INP			Channel							IL2	(ACT input channel)			
Current (3IB,CT)			INP			Channel							IL3	(ACT input channel)			
Current (3IB,CT)			OUT	LD0.IL1TCTR2.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			OUT	LD0.IL1TCTR2.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL1TCTR2.ARtg.setMag.f	ASG	FLOAT32	SP	B,I	100.0				Primary current	Rated primary current	1.0...6000.0 A	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL1TCTR2.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr A	Phase A amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL1TCTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr A	Phase A angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL1TCTR2.ARtgScy.setVal	ENG	Enum	SP	B,I	2				Secondary current	Rated secondary current	2=1A; 3=5A	Configuration\Analog inputs\Current (3IB,CT)	

Current (3IB,CT)			CFG	LD0.IL1TCTR2.RevPol.setVal	SPG	BOOLEAN	SP	A,I	0				Reverse polarity	Reverse the polarity of the phase CTs		Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL2TCTR2.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr B	Phase B amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL2TCTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr B	Phase B angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL3TCTR2.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr C	Phase C amplitude correction factor	0.9000...1.1000	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			CFG	LD0.IL3TCTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr C	Phase C angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (3IB,CT)	
Current (3IB,CT)			VER	LD0.IL1TCTR2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

Current (IoB,CT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Current (IoB,CT)			INP			Channel							Io	(ACT input channel)			
Current (IoB,CT)			OUT	LD0.RESTCTR2.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			OUT	LD0.RESTCTR2.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			CFG	LD0.RESTCTR2.ARtg.setMag.f	ASG	FLOAT32	SP	B,I	100.0				Primary current	Primary current	1.0...6000.0 A	Configuration\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			CFG	LD0.RESTCTR2.Cor.setMag.f	ASG	FLOAT32	SP	B,I	1.0000				Amplitude Corr	Amplitude correction	0.9000...1.1000	Configuration\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			CFG	LD0.RESTCTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle correction	Angle correction factor	-20.0000...20.0000 deg	Configuration\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			CFG	LD0.RESTCTR2.ARtgScy.setVal	ENG	Enum	SP	B,I	2				Secondary current	Secondary current	2=1A; 3=5A	Configuration\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			CFG	LD0.RESTCTR2.RevPol.setVal	SPG	BOOLEAN	SP	A,I	0				Reverse polarity	Reverse the polarity of the residual CT		Configuration\Analog inputs\Current (IoB,CT)	
Current (IoB,CT)			VER	LD0.RESTCTR2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

RESCMMXU2: Residual current measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
RESCMMXU2	Io(2)	In(2)	INP	LD0.RESCMMXU2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Measurements\RESCMMXU2\Inputs	
RESCMMXU2	Io(2)	In(2)	OUT	LD0.RESCMMXU2.HiAlm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_ALARM	High alarm		Monitoring\I/O status\Measurements\RESCMMXU2\Outputs	
RESCMMXU2	Io(2)	In(2)	OUT	LD0.RESCMMXU2.HiWrn.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	HIGH_WARN	High warning		Monitoring\I/O status\Measurements\RESCMMXU2\Outputs	

RESCMMXU2	Io(2)	In(2)	CTR	LD0.RESCMMXU2.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN,I3		(RESCMMXU2 demands)				
RESCMMXU2	Io(2)	In(2)	MON	LD0.RESCMMXU2.A.res.instCVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	IoB-A	Measured residual current	0.00...40.00 xIn	Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RESCMMXU2.A.res.instCVal.ang.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_ANGL_RES	Residual current angle	-180.00...180.00 deg	Monitoring\I/O status\Measurements\RESCMMXU2\Monitored data	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RESCMMXU2.A.res.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P		I_DB_RES	Residual current Amplitude, magnitude of reported value	0.00...40.00 xIn	Monitoring\I/O status\Measurements\RESCMMXU2\Monitored data	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RESCMMXU2.A.res.range	WYE	Enum	MX	B		MeasFlt	P		I_RANGE_RES	Residual current Amplitude range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Measurements\RESCMMXU2\Monitored data	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RCAVMMXU2.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	I_DMD_RES	Demand value of residual current	0.00...40.00 xIn	Monitoring\I/O status\Measurements\RESCMMXU2\Monitored data	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RCMAMMXU2.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Max demand Io	Maximum demand for residual current	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RCMAMMXU2.A.res.t	WYE	Timestamp	MX	B					Time max demand Io	Time of maximum demand residual current		Monitoring\Recorded data\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RCMIMMXU2.A.res.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN,I3	Min demand Io	Minimum demand for residual current	0.00...40.00 xIn	Monitoring\Recorded data\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	MON	LD0.RCMIMMXU2.A.res.t	WYE	Timestamp	MX	B					Time min demand Io	Time of minimum demand residual current		Monitoring\Recorded data\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	CFG	LD0.RESCMMXU2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Measurements\RESCMMXU2	
RESCMMXU2	Io(2)	In(2)	CFG	LD0.RESCMMXU2.A.res.db	WYE	INT32U	CF	B,I	2500				A deadband res	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	CFG	LD0.RESCMMXU2.A.res.rangeC.hhLim.f	WYE	FLOAT32	CF	B,I	0.20				A Hi high limit res	High alarm current limit	0.00...40.00 xIn	Configuration\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	CFG	LD0.RESCMMXU2.A.res.rangeC.hLim.f	WYE	FLOAT32	CF	B,I	0.05				A high limit res	High warning current limit	0.00...40.00 xIn	Configuration\Measurements\RESCMMXU2	RESTCTR2
RESCMMXU2	Io(2)	In(2)	CFG	LD0.RESCMMXU2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used measurement mode	1=RMS; 2=DFT	Configuration\Measurements\RESCMMXU2	
RESCMMXU2	Io(2)	In(2)	VER	LD0.RESCMMXU2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			

X130 (AIM)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X130 (AIM)	X130 (AIM)	X130 (AIM)	OUT	LD0.XAGGIO130.Ind1.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 1	Connectors 1-2		Monitoring\I/O status\Binary input values\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	OUT	LD0.XAGGIO130.Ind2.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 2	Connectors 3-4		Monitoring\I/O status\Binary input values\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	OUT	LD0.XAGGIO130.Ind3.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 3	Connectors 5-6		Monitoring\I/O status\Binary input values\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	OUT	LD0.XAGGIO130.Ind4.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 4	Connectors 7-8		Monitoring\I/O status\Binary input values\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.FilTmms1.setVal	ING	INT32	SP	B,I	5				Input 1 filter time	Connectors 1-2	5...1000 ms	Configuration\I/O modules\X130 (AIM)\Input filtering	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.FilTmms2.setVal	ING	INT32	SP	B,I	5				Input 2 filter time	Connectors 3-4	5...1000 ms	Configuration\I/O modules\X130 (AIM)\Input filtering	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.FilTmms3.setVal	ING	INT32	SP	B,I	5				Input 3 filter time	Connectors 5-6	5...1000 ms	Configuration\I/O modules\X130 (AIM)\Input filtering	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.FilTmms4.setVal	ING	INT32	SP	B,I	5				Input 4 filter time	Connectors 7-8	5...1000 ms	Configuration\I/O modules\X130 (AIM)\Input filtering	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.DigInInv1.setVal	SPG	BOOLEAN	SP	A,I	0				Input 1 inversion	Connectors 1-2		Configuration\I/O modules\X130 (AIM)\Input inversion	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.DigInInv2.setVal	SPG	BOOLEAN	SP	A,I	0				Input 2 inversion	Connectors 3-4		Configuration\I/O modules\X130 (AIM)\Input inversion	

X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.DigInInv3.setVal	SPG	BOOLEAN	SP	A,I	0				Input 3 inversion	Connectors 5-6		Configuration\I/O modules\X130 (AIM)\Input inversion	
X130 (AIM)	X130 (AIM)	X130 (AIM)	CFG	LD0.XAGGIO130.DigInInv4.setVal	SPG	BOOLEAN	SP	A,I	0				Input 4 inversion	Connectors 7-8		Configuration\I/O modules\X130 (AIM)\Input inversion	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	INF	LD0.XAGGIO130.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X130 (AIM)	
X130 (AIM)	X130 (AIM)	X130 (AIM)	VER	LD0.XAGGIO130.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			
X130 (AIM)	X130 (AIM)	X130 (AIM)	VER	LD0.XAGGIO130.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

X130 (RTD)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn1.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL1	mA input, Connectors 1-2, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn2.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL2	mA input, Connectors 3-4, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn3.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL3	RTD input, Connectors 5-6-11c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn4.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL4	RTD input, Connectors 7-8-11c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn5.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL5	RTD input, Connectors 9-10-11c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn6.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL6	RTD input, Connectors 13-14-12c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn7.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL7	RTD input, Connectors 15-16-12c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.AnIn8.instMag.f	MV	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	AI_VAL8	RTD input, Connectors 17-18-12c, instantaneous value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.Alm1.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	General alarm		Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	OUT	LD0.XRGGIO130.Wrn1.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	WARNING	General warning		Monitoring\I/O status\Analog input values\X130 (RTD)\Outputs	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn1.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB1	mA input, Connectors 1-2, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn1.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE1	mA input, Connectors 1-2, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn2.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB2	mA input, Connectors 3-4, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	

X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn2.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE2	mA input, Connectors 3-4, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn3.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB3	RTD input, Connectors 5-6-11c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn3.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE3	RTD input, Connectors 5-6-11c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn4.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB4	RTD input, Connectors 7-8-11c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn4.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE4	RTD input, Connectors 7-8-11c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn5.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB5	RTD input, Connectors 9-10-11c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn5.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE5	RTD input, Connectors 9-10-11c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn6.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB6	RTD input, Connectors 13-14-12c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn6.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE6	RTD input, Connectors 13-14-12c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn7.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB7	RTD input, Connectors 15-16-12c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn7.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE7	RTD input, Connectors 15-16-12c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn8.mag.f	MV	FLOAT32	MX	B		MeasFlt	P		AI_DB8	RTD input, Connectors 17-18-12c, reported value	-10000.0...10000.0	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	MON	LD0.XRGGIO130.AnIn8.range	MV	Enum	MX	B		MeasFlt	P		AI_RANGE8	RTD input, Connectors 17-18-12c, range	0=normal; 1=high; 2=low; 3=high-high; 4=low-low	Monitoring\I/O status\Analog input values\X130 (RTD)\Monitored data	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	

X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn1.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn2.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn3.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 4	

X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn4.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn5.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn6.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 7	

X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn7.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.units.SIUnit	MV	Enum	CF	B,I	1				Value unit	Selected unit for output value format	1=Dimensionless; 5=Ampere; 23=Degrees celsius; 30=Ohm	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.db	MV	INT32U	CF	B,I	1000				Value deadband	Deadband configuration value for integral calculation. (percentage of difference between min and max as 0,001 % s)	100...100000	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.hhLim.f	MV	FLOAT32	CF	B,I	10000.0				Val high high limit	Output value high alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.hLim.f	MV	FLOAT32	CF	B,I	10000.0				Value high limit	Output value high warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.lLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low limit	Output value low warning limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.llLim.f	MV	FLOAT32	CF	B,I	-10000.0				Value low low limit	Output value low alarm limit for supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.min.f	MV	FLOAT32	CF	B,I	-10000.0				Value minimum	Minimum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.AnIn8.rangeC.max.f	MV	FLOAT32	CF	B,I	10000.0				Value maximum	Maximum output value for scaling and supervision	-10000.0...10000.0	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal1.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal2.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal3.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal4.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal5.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal6.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal7.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMinVal8.setMag.f	ASG	FLOAT32	SP	B,I	0				Input minimum	Minimum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 8	

X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal1.setMag.f	ASG	FLOAT32	SP	B,I	20				Input maximum	Maximum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal2.setMag.f	ASG	FLOAT32	SP	B,I	20				Input maximum	Maximum analogue input value for mA or resistance scaling	0...20 mA	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal3.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal4.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal5.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal6.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal7.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMaxVal8.setMag.f	ASG	FLOAT32	SP	B,I	2000				Input maximum	Maximum analogue input value for mA or resistance scaling	0...2000 Ω	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod1.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 5=0..20mA	Configuration\I/O modules\X130 (RTD)\Input 1	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod2.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 5=0..20mA	Configuration\I/O modules\X130 (RTD)\Input 2	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod3.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 3	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod4.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 4	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod5.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 5	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod6.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 6	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod7.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 7	
X130 (RTD)	X130 (RTD)	X130 (RTD)	CFG	LD0.XRGGIO130.InMod8.setVal	ENG	Enum	SP	B,I	1				Input mode	Analogue input mode	1=Not in use; 2=Resistance; 10=Pt100; 11=Pt250; 20=Ni100; 21=Ni120; 22=Ni250; 30=Cu10	Configuration\I/O modules\X130 (RTD)\Input 8	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (RTD)	

X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	INF	LD0.XRGGIO130.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X130 (RTD)	
X130 (RTD)	X130 (RTD)	X130 (RTD)	VER	LD0.XRGGIO130.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			
X130 (RTD)	X130 (RTD)	X130 (RTD)	VER	LD0.XRGGIO130.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

X130 (SIM)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	INF	LD0.XSGGIO130.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X130 (SIM)	
X130 (SIM)	X130 (SIM)	X130 (SIM)	VER	LD0.XSGGIO130.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			
X130 (SIM)	X130 (SIM)	X130 (SIM)	VER	LD0.XSGGIO130.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

X110 (BIO)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X110 (BIO)	X110 (BIO)	X110 (BIO)	INP	LD0.XGGIO110.SPCSO1.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-SO1	Connectors 14c-15no-16nc		Monitoring\I/O status\Binary output values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INP	LD0.XGGIO110.SPCSO2.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-SO2	Connectors 17c-18no-19nc		Monitoring\I/O status\Binary output values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INP	LD0.XGGIO110.SPCSO3.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-SO3	Connectors 20c-21no-22nc		Monitoring\I/O status\Binary output values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INP	LD0.XGGIO110.SPCSO4.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-SO4	Connectors 23-24		Monitoring\I/O status\Binary output values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind1.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 1	Connectors 1-2		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind2.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 2	Connectors 3-4		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind3.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 3	Connectors 5-6c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind4.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 4	Connectors 7-6c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind5.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 5	Connectors 8-9c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind6.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 6	Connectors 10-9c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind7.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 7	Connectors 11-12c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	OUT	LD0.XGGIO110.Ind8.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 8	Connectors 13-12c		Monitoring\I/O status\Binary input values\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms1.setVal	ING	INT32	SP	B,I	5				Input 1 filter time	Connectors 1-2	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms2.setVal	ING	INT32	SP	B,I	5				Input 2 filter time	Connectors 3-4	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms3.setVal	ING	INT32	SP	B,I	5				Input 3 filter time	Connectors 5-6c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms4.setVal	ING	INT32	SP	B,I	5				Input 4 filter time	Connectors 7-6c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms5.setVal	ING	INT32	SP	B,I	5				Input 5 filter time	Connectors 8-9c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	

X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms6.setVal	ING	INT32	SP	B,I	5				Input 6 filter time	Connectors 10-9c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms7.setVal	ING	INT32	SP	B,I	5				Input 7 filter time	Connectors 11-12c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.FilTmms8.setVal	ING	INT32	SP	B,I	5				Input 8 filter time	Connectors 13-12c	5...1000 ms	Configuration\I/O modules\X110 (BIO)\Input filtering	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv1.setVal	SPG	BOOLEAN	SP	A,I	0				Input 1 inversion	Connectors 1-2		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv2.setVal	SPG	BOOLEAN	SP	A,I	0				Input 2 inversion	Connectors 3-4		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv3.setVal	SPG	BOOLEAN	SP	A,I	0				Input 3 inversion	Connectors 5-6c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv4.setVal	SPG	BOOLEAN	SP	A,I	0				Input 4 inversion	Connectors 7-6c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv5.setVal	SPG	BOOLEAN	SP	A,I	0				Input 5 inversion	Connectors 8-9c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv6.setVal	SPG	BOOLEAN	SP	A,I	0				Input 6 inversion	Connectors 10-9c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv7.setVal	SPG	BOOLEAN	SP	A,I	0				Input 7 inversion	Connectors 11-12c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	CFG	LD0.XGGIO110.DigInInv8.setVal	SPG	BOOLEAN	SP	A,I	0				Input 8 inversion	Connectors 13-12c		Configuration\I/O modules\X110 (BIO)\Input inversion	
X110 (BIO)	X110 (BIO)	X110 (BIO)	TES	LD0.XGGIO110.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-SO1	Connectors 14c-15no-16nc		Tests\Binary outputs\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	TES	LD0.XGGIO110.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-SO2	Connectors 17c-18no-19nc		Tests\Binary outputs\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	TES	LD0.XGGIO110.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-SO3	Connectors 20c-21no-22nc		Tests\Binary outputs\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	TES	LD0.XGGIO110.SPCSO4.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-SO4	Connectors 23-24		Tests\Binary outputs\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	INF	LD0.XGGIO110.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X110 (BIO)	
X110 (BIO)	X110 (BIO)	X110 (BIO)	VER	LD0.XGGIO110.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			
X110 (BIO)	X110 (BIO)	X110 (BIO)	VER	LD0.XGGIO110.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

X110 (BIO-H)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INP	LD0.XBGGIO110.SPCSO1.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-HSO1	Connectors 15no-16no		Monitoring\I/O status\Binary output values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INP	LD0.XBGGIO110.SPCSO2.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-HSO2	Connectors 19no-20no		Monitoring\I/O status\Binary output values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INP	LD0.XBGGIO110.SPCSO3.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X110-HSO3	Connectors 23no-24no		Monitoring\I/O status\Binary output values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind1.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 1	Connectors 1-5c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind2.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 2	Connectors 2-5c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind3.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 3	Connectors 3-5c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind4.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 4	Connectors 4-5c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	

X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind5.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 5	Connectors 6-10c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind6.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 6	Connectors 7-10c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind7.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 7	Connectors 8-10c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	OUT	LD0.XBGGIO110.Ind8.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X110-Input 8	Connectors 9-10c		Monitoring\I/O status\Binary input values\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms1.setVal	ING	INT32	SP	B,I	5				Input 1 filter time	Connectors 1-5c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms2.setVal	ING	INT32	SP	B,I	5				Input 2 filter time	Connectors 2-5c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms3.setVal	ING	INT32	SP	B,I	5				Input 3 filter time	Connectors 3-5c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms4.setVal	ING	INT32	SP	B,I	5				Input 4 filter time	Connectors 4-5c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms5.setVal	ING	INT32	SP	B,I	5				Input 5 filter time	Connectors 6-10c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms6.setVal	ING	INT32	SP	B,I	5				Input 6 filter time	Connectors 7-10c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms7.setVal	ING	INT32	SP	B,I	5				Input 7 filter time	Connectors 8-10c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.FilTmms8.setVal	ING	INT32	SP	B,I	5				Input 8 filter time	Connectors 9-10c	5...1000 ms	Configuration\I/O modules\X110 (BIO-H)\Input filtering	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv1.setVal	SPG	BOOLEAN	SP	B,I	0				Input 1 inversion	Connectors 1-5c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv2.setVal	SPG	BOOLEAN	SP	B,I	0				Input 2 inversion	Connectors 2-5c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv3.setVal	SPG	BOOLEAN	SP	B,I	0				Input 3 inversion	Connectors 3-5c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv4.setVal	SPG	BOOLEAN	SP	B,I	0				Input 4 inversion	Connectors 4-5c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv5.setVal	SPG	BOOLEAN	SP	B,I	0				Input 5 inversion	Connectors 6-10c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv6.setVal	SPG	BOOLEAN	SP	B,I	0				Input 6 inversion	Connectors 7-10c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv7.setVal	SPG	BOOLEAN	SP	B,I	0				Input 7 inversion	Connectors 8-10c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	CFG	LD0.XBGGIO110.DigInInv8.setVal	SPG	BOOLEAN	SP	B,I	0				Input 8 inversion	Connectors 9-10c		Configuration\I/O modules\X110 (BIO-H)\Input inversion	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	TES	LD0.XBGGIO110.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-HSO1	Connectors 15no-16no		Tests\Binary outputs\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	TES	LD0.XBGGIO110.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-HSO2	Connectors 19no-20no		Tests\Binary outputs\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	TES	LD0.XBGGIO110.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X110-HSO3	Connectors 23no-24no		Tests\Binary outputs\X110 (BIO-H)	

X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	INF	LD0.XBGGIO110.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X110 (BIO-H)	
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	VER	LD0.XBGGIO110.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			
X110 (BIO-H)	X110 (BIO-H)	X110 (BIO-H)	VER	LD0.XBGGIO110.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

X130 (BIO)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X130 (BIO)	X130 (BIO)	X130 (BIO)	INP	LD0.XGGIO130.SPCSO1.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X130-SO1	Connectors 10c-11no-12nc		Monitoring\I/O status\Binary output values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INP	LD0.XGGIO130.SPCSO2.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X130-SO2	Connectors 13c-14no-15nc		Monitoring\I/O status\Binary output values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INP	LD0.XGGIO130.SPCSO3.stVal	SPC	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	X130-SO3	Connectors 16c-17no-18nc		Monitoring\I/O status\Binary output values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind1.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 1	Connectors 1-2c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind2.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 2	Connectors 3-2c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind3.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 3	Connectors 4-5c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind4.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 4	Connectors 6-5c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind5.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 5	Connectors 7-8c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	OUT	LD0.XGGIO130.Ind6.stVal	SPS	BOOLEAN	ST	B		StatIO	P	MB,DN,I3	X130-Input 6	Connectors 9-8c		Monitoring\I/O status\Binary input values\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms1.setVal	ING	INT32	SP	B,I	5				Input 1 filter time	Connectors 1-2c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms2.setVal	ING	INT32	SP	B,I	5				Input 2 filter time	Connectors 3-2c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms3.setVal	ING	INT32	SP	B,I	5				Input 3 filter time	Connectors 4-5c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms4.setVal	ING	INT32	SP	B,I	5				Input 4 filter time	Connectors 6-5c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms5.setVal	ING	INT32	SP	B,I	5				Input 5 filter time	Connectors 7-8c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.FilTmms6.setVal	ING	INT32	SP	B,I	5				Input 6 filter time	Connectors 9-8c	5...1000 ms	Configuration\I/O modules\X130 (BIO)\Input filtering	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv1.setVal	SPG	BOOLEAN	SP	A,I	0				Input 1 inversion	Connectors 1-2c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv2.setVal	SPG	BOOLEAN	SP	A,I	0				Input 2 inversion	Connectors 3-2c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv3.setVal	SPG	BOOLEAN	SP	A,I	0				Input 3 inversion	Connectors 4-5c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv4.setVal	SPG	BOOLEAN	SP	A,I	0				Input 4 inversion	Connectors 6-5c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv5.setVal	SPG	BOOLEAN	SP	A,I	0				Input 5 inversion	Connectors 7-8c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	CFG	LD0.XGGIO130.DigInInv6.setVal	SPG	BOOLEAN	SP	A,I	0				Input 6 inversion	Connectors 9-8c		Configuration\I/O modules\X130 (BIO)\Input inversion	
X130 (BIO)	X130 (BIO)	X130 (BIO)	TES	LD0.XGGIO130.SPCSO1.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X130-SO1	Connectors 10c-11no-12nc		Tests\Binary outputs\X130 (BIO)	

X130 (BIO)	X130 (BIO)	X130 (BIO)	TES	LD0.XGGIO130.SPCSO2.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X130-SO2	Connectors 13c-14no-15nc		Tests\Binary outputs\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	TES	LD0.XGGIO130.SPCSO3.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				X130-SO3	Connectors 16c-17no-18nc		Tests\Binary outputs\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	INF	LD0.XGGIO130.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X130 (BIO)	
X130 (BIO)	X130 (BIO)	X130 (BIO)	VER	LD0.XGGIO130.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	E					(Name plate)			
X130 (BIO)	X130 (BIO)	X130 (BIO)	VER	LD0.XGGIO130.CardNam.swRev	DPL	VisString255 (20)	DC							(Card information)			

TRPPTRC3: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TRPPTRC3	Master Trip(3)	94/86(3)	INP	LD0.TRPPTRC3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC3\Inputs	
TRPPTRC3	Master Trip(3)	94/86(3)	INP	LD0.TRPPTRC3.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC3\Inputs	
TRPPTRC3	Master Trip(3)	94/86(3)	INP	LD0.TRPPTRC3.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC3\Inputs	
TRPPTRC3	Master Trip(3)	94/86(3)	OUT	LD0.TRPPTRC3.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC3\Outputs	
TRPPTRC3	Master Trip(3)	94/86(3)	OUT	LD0.TRPPTRC3.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC3\Outputs	
TRPPTRC3	Master Trip(3)	94/86(3)	CTR	LD0.TRPPTRC3.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC3	Reset TRPPTRC3 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC3	Master Trip(3)	94/86(3)	CTR	LD0.TRPPTRC3.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC3	Master Trip(3)	94/86(3)	MON	LD0.TRPPTRC3.Beh.stVal	ENS	Enum	ST	B					TRPPTRC3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC3	Master Trip(3)	94/86(3)	CFG	LD0.TRPPTRC3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC3	
TRPPTRC3	Master Trip(3)	94/86(3)	CFG	LD0.TRPPTRC3.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC3	
TRPPTRC3	Master Trip(3)	94/86(3)	CFG	LD0.TRPPTRC3.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC3	
TRPPTRC3	Master Trip(3)	94/86(3)	VER	LD0.TRPPTRC3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

TRPPTRC4: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

TRPPTRC4	Master Trip(4)	94/86(4)	INP	LD0.TRPPTRC4.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC4\Inputs	
TRPPTRC4	Master Trip(4)	94/86(4)	INP	LD0.TRPPTRC4.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC4\Inputs	
TRPPTRC4	Master Trip(4)	94/86(4)	INP	LD0.TRPPTRC4.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC4\Inputs	
TRPPTRC4	Master Trip(4)	94/86(4)	OUT	LD0.TRPPTRC4.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC4\Outputs	
TRPPTRC4	Master Trip(4)	94/86(4)	OUT	LD0.TRPPTRC4.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC4\Outputs	
TRPPTRC4	Master Trip(4)	94/86(4)	CTR	LD0.TRPPTRC4.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC4	Reset TRPPTRC4 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC4	Master Trip(4)	94/86(4)	CTR	LD0.TRPPTRC4.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC4	Master Trip(4)	94/86(4)	MON	LD0.TRPPTRC4.Beh.stVal	ENS	Enum	ST	B					TRPPTRC4	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC4	Master Trip(4)	94/86(4)	CFG	LD0.TRPPTRC4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC4	
TRPPTRC4	Master Trip(4)	94/86(4)	CFG	LD0.TRPPTRC4.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC4	
TRPPTRC4	Master Trip(4)	94/86(4)	CFG	LD0.TRPPTRC4.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC4	
TRPPTRC4	Master Trip(4)	94/86(4)	VER	LD0.TRPPTRC4.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

TRPPTRC5: Trip logic

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
TRPPTRC5	Master Trip(5)	94/86(5)	INP	LD0.TRPPTRC5.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block of function		Monitoring\I/O status\Trip logic\TRPPTRC5\Inputs	
TRPPTRC5	Master Trip(5)	94/86(5)	INP	LD0.TRPPTRC5.Op.general	ACT	BOOLEAN	ST	B	0	StatIO	P	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Trip logic\TRPPTRC5\Inputs	
TRPPTRC5	Master Trip(5)	94/86(5)	INP	LD0.TRPPTRC5.LORs.stVal	SPC	BOOLEAN	ST	B	0				RST_LKOUT	Input for resetting the circuit breaker lockout function		Monitoring\I/O status\Trip logic\TRPPTRC5\Inputs	
TRPPTRC5	Master Trip(5)	94/86(5)	OUT	LD0.TRPPTRC5.Tr.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	TRIP	General trip output signal		Monitoring\I/O status\Trip logic\TRPPTRC5\Outputs	
TRPPTRC5	Master Trip(5)	94/86(5)	OUT	LD0.TRPPTRC5.ClsLO.stVal	SPS	BOOLEAN	ST	B					CL_LKOUT	Circuit breaker lockout output (set until reset)		Monitoring\I/O status\Trip logic\TRPPTRC5\Outputs	
TRPPTRC5	Master Trip(5)	94/86(5)	CTR	LD0.TRPPTRC5.LORs.Oper.ctlVal	SPC	BOOLEAN	CO	B,H	0				TRPPTRC5	Reset TRPPTRC5 lockout and latch	0=Cancel; 1=Clear	Clear\Clear	
TRPPTRC5	Master Trip(5)	94/86(5)	CTR	LD0.TRPPTRC5.TrRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Reset latched trip)			
TRPPTRC5	Master Trip(5)	94/86(5)	MON	LD0.TRPPTRC5.Beh.stVal	ENS	Enum	ST	B					TRPPTRC5	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
TRPPTRC5	Master Trip(5)	94/86(5)	CFG	LD0.TRPPTRC5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Configuration\Trip logic\TRPPTRC5	

TRPPTRC5	Master Trip(5)	94/86(5)	CFG	LD0.TRPPTRC5.TrPlsTmms.setVal	ING	INT32	SP	B	250				Trip pulse time	Minimum duration of trip output signal	20...60000 ms	Configuration\Trip logic\TRPPTRC5	
TRPPTRC5	Master Trip(5)	94/86(5)	CFG	LD0.TRPPTRC5.TrOutMod.setVal	ENG	Enum	SP	B	1				Trip output mode	Select the operation mode for trip output	1=Non-latched; 2=Latched; 3=Lockout	Configuration\Trip logic\TRPPTRC5	
TRPPTRC5	Master Trip(5)	94/86(5)	VER	LD0.TRPPTRC5.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

X000 (COM)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.hwRev	DPL	VisString255 (20)	DC	B	0				HW revision	Card HW revision		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.swRev	DPL	VisString255 (20)	DC	B	-				SW version	Card SW version		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.serNum	DPL	VisString255 (20)	DC	B	0				Serial number	Card serial number		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.model	DPL	VisString255 (20)	DC	B	0				Article number	Card article number		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.HwId.t	VSS	Timestamp	ST	ED2,B					Manufacturing date	Card manufacturing date		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.eManDate	DPL	VisString255 (20)	EX	ED1					Manufacturing date	Card manufacturing date		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.TestStaId.t	VSS	Timestamp	ST	ED2,B					Test date	Card test date		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	INF	LD0.XGGIO90.CardNam.eTestDate	DPL	VisString255 (20)	EX	ED1					Test date	Card test date		Information\HW modules\X000 (COM)	
X000 (COM)	X000 (COM)	X000 (COM)	VER	LD0.XGGIO90.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(X90)			
X000 (COM)	X000 (COM)	X000 (COM)	VER	LD0.XGGIO90.CardNam.swRev	DPL	VisString255 (20)	DC	B	-				SW version	Card SW version		Information\HW modules\X000 (COM)	

Serial Port 1 Supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Serial Port 1 Supervision			OUT	LD0.SERLCCH1.ChLiv.stVal	SPS	BOOLEAN	ST	B					CH1LIV	Communication channel live		Monitoring\Communication\COM1	
Serial Port 1 Supervision			OUT	LD0.SERLCCH1.LnkLiv.stVal	SPS	BOOLEAN	ST	B					LNK1LIV	Link status	0=Down; 1=Up	Monitoring\Communication\COM1	
Serial Port 1 Supervision			CTR	LD0.SERLCCH1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets counters		Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.CharRxCnt.stVal	INS	INT32	ST	B					Characters received	Characters received	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.FrRxCnt.stVal	INS	INT32	ST	B					Frames received	Number of successfully received frames	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.RxErrCnt.stVal	INS	INT32	ST	B					Frames discarded	Number of discarded frames	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.FrTxCnt.stVal	INS	INT32	ST	B					Frames transmitted	Number of transmitted frames	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.CDLosCnt.stVal	INS	INT32	ST	B					CD lost	CD lost	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.CollCnt.stVal	INS	INT32	ST	B					Collision	Collision	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.CTSTmOut.stVal	INS	INT32	ST	B					CTS Timeout	CTS Timeout	-1...2147483646	Monitoring\Communication\COM1	

Serial Port 1 Supervision			MON	LD0.SERLCCH1.TxTmOutCnt.stVal	INS	INT32	ST	B					Transmission timeout	Transmission timeout	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.PtyErrCnt.stVal	INS	INT32	ST	B					Parity errors	Number of parity errors	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.OvRunErr.stVal	INS	INT32	ST	B					Overrun errors	Number of overrun errors	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.FrErrCnt.stVal	INS	INT32	ST	B					Framing errors	Number of framing errors	-1...2147483646	Monitoring\Communication\COM1	
Serial Port 1 Supervision			MON	LD0.SERLCCH1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets counters		Monitoring\Communication\COM1	
Serial Port 1 Supervision			CFG	LD0.SERLCCH1.FibMod.setVal	ENG	Enum	SP	B	0				Fiber mode	Fiber mode	0=No fiber; 2=Fiber optic	Configuration\Communication\COM1	
Serial Port 1 Supervision			CFG	LD0.SERLCCH1.SerMod.setVal	ENG	Enum	SP	B	1				Serial mode	Serial mode	1=RS485 2Wire; 2=RS485 4Wire; 3=RS232 no handshake; 4=RS232 with handshake	Configuration\Communication\COM1	
Serial Port 1 Supervision			CFG	LD0.SERLCCH1.CTSDlTmms.setVal	ING	INT32	SP	A	0				CTS delay	CTS delay	0...60000 ms	Configuration\Communication\COM1	
Serial Port 1 Supervision			CFG	LD0.SERLCCH1.RTSDlTmms.setVal	ING	INT32	SP	A	0				RTS delay	RTS delay	0...60000 ms	Configuration\Communication\COM1	
Serial Port 1 Supervision			CFG	LD0.SERLCCH1.SerBaudRte.setVal	ENG	Enum	SP	B	6				Baudrate	Baudrate	1=300; 2=600; 3=1200; 4=2400; 5=4800; 6=9600; 7=19200; 8=38400; 9=57600; 10=115200	Configuration\Communication\COM1	
Serial Port 1 Supervision			VER	LD0.SERLCCH1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(SERLCCH1)			

Serial Port 2 Supervision

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Serial Port 2 Supervision			OUT	LD0.SERLCCH2.ChLiv.stVal	SPS	BOOLEAN	ST	B					CH2LIV	Communication channel live		Monitoring\Communication\COM2	
Serial Port 2 Supervision			OUT	LD0.SERLCCH2.LnkLiv.stVal	SPS	BOOLEAN	ST	B					LNK2LIV	Link status	0=Down; 1=Up	Monitoring\Communication\COM2	
Serial Port 2 Supervision			CTR	LD0.SERLCCH2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets counters		Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.CharRxCnt.stVal	INS	INT32	ST	B					Characters received	Characters received	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.FrRxCnt.stVal	INS	INT32	ST	B					Frames received	Number of successfully received frames	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.RxErrCnt.stVal	INS	INT32	ST	B					Frames discarded	Number of discarded frames	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.FrTxCnt.stVal	INS	INT32	ST	B					Frames transmitted	Number of transmitted frames	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.CDLosCnt.stVal	INS	INT32	ST	B					CD lost	CD lost	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.CollCnt.stVal	INS	INT32	ST	B					Collision	Collision	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.CTSTmOut.stVal	INS	INT32	ST	B					CTS Timeout	CTS Timeout	-1...2147483646	Monitoring\Communication\COM2	

Serial Port 2 Supervision			MON	LD0.SERLCCH2.TxTmOutCnt.stVal	INS	INT32	ST	B					Transmission timeout	Transmission timeout	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.PtyErrCnt.stVal	INS	INT32	ST	B					Parity errors	Number of parity errors	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.OvRunErr.stVal	INS	INT32	ST	B					Overrun errors	Number of overrun errors	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.FrErrCnt.stVal	INS	INT32	ST	B					Framing errors	Number of framing errors	-1...2147483646	Monitoring\Communication\COM2	
Serial Port 2 Supervision			MON	LD0.SERLCCH2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Resets counters		Monitoring\Communication\COM2	
Serial Port 2 Supervision			CFG	LD0.SERLCCH2.FibMod.setVal	ENG	Enum	SP	B	0				Fiber mode	Fiber mode	0=No fiber; 2=Fiber optic	Configuration\Communication\COM2	
Serial Port 2 Supervision			CFG	LD0.SERLCCH2.SerMod.setVal	ENG	Enum	SP	B	1				Serial mode	Serial mode	1=RS485 2Wire; 2=RS485 4Wire; 3=RS232 no handshake; 4=RS232 with handshake	Configuration\Communication\COM2	
Serial Port 2 Supervision			CFG	LD0.SERLCCH2.CTSDlTmms.setVal	ING	INT32	SP	A	0				CTS delay	CTS delay	0...60000 ms	Configuration\Communication\COM2	
Serial Port 2 Supervision			CFG	LD0.SERLCCH2.RTSDlTmms.setVal	ING	INT32	SP	A	0				RTS delay	RTS delay	0...60000 ms	Configuration\Communication\COM2	
Serial Port 2 Supervision			CFG	LD0.SERLCCH2.SerBaudRte.setVal	ENG	Enum	SP	B	6				Baudrate	Baudrate	1=300; 2=600; 3=1200; 4=2400; 5=4800; 6=9600; 7=19200; 8=38400; 9=57600; 10=115200	Configuration\Communication\COM2	
Serial Port 2 Supervision			VER	LD0.SERLCCH2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(SERLCCH2)			

Redundant Ethernet

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Redundant Ethernet			OUT	LD0.RCHLCCH1.ChLiv.stVal	SPS	BOOLEAN	ST	A		StatIed	P,H	MB,DN,I3	CHLIV_A	Ethernet channel A live		Monitoring\Communication\Ethernet\Activity	
Redundant Ethernet			OUT	LD0.RCHLCCH1.RedChLiv.stVal	SPS	BOOLEAN	ST	A		StatIed	P,H	MB,DN,I3	REDCHLIV_B	Ethernet redundant channel B live		Monitoring\Communication\Ethernet\Activity	
Redundant Ethernet			OUT	LD0.RCHLCCH1.LnkLiv.stVal	SPS	BOOLEAN	ST	A					LNKLIV_A	Port A link status		Monitoring\Communication\Ethernet\Link statuses	
Redundant Ethernet			OUT	LD0.RCHLCCH1.RedLnkLiv.stVal	SPS	BOOLEAN	ST	A					REDLNKLIV_B	Port B link status		Monitoring\Communication\Ethernet\Link statuses	
Redundant Ethernet			CFG	LD0.RCHLCCH1.RedCfg.setVal	ENG	Enum	SP	B	1				Redundant mode	Ethernet redundant mode	1=None; 2=PRP; 3=HSR	Configuration\Communication\Ethernet\Redundancy	
Redundant Ethernet			VER	LD0.RCHLCCH1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(RCHLCCH1)			

X1/X16 port Ethernet channel

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X1/X16 port Ethernet channel			OUT	LD0.SCHLCCH1.ChLiv.stVal	SPS	BOOLEAN	ST	A		StatIed	P,H	MB,DN,I3	CH1LIV	Ethernet channel live		Monitoring\Communication\Ethernet\Activity	
X1/X16 port Ethernet channel			OUT	LD0.SCHLCCH1.LnkLiv.stVal	SPS	BOOLEAN	ST	A					LNK1LIV	Ethernet port 1 link status		Monitoring\Communication\Ethernet\Link statuses	
X1/X16 port Ethernet channel			CFG	LD0.SCHLCCH1.PortMod.setVal	ENG	Enum	SP	B,#	1				Port 1 mode	Ethernet port mode	0=Off; 1=On	Configuration\Communication\Ethernet\Rear port(s)	

X1/X16 port Ethernet channel			VER	LD0.SCHLCCH1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(SCHLCCH1)			

X2 port Ethernet channel

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X2 port Ethernet channel			OUT	LD0.SCHLCCH2.ChLiv.stVal	SPS	BOOLEAN	ST	A		StatIed	P,H	MB,DN,I3	CH2LIV	Ethernet channel live		Monitoring\Communication\Ethernet\Activity	
X2 port Ethernet channel			OUT	LD0.SCHLCCH2.LnkLiv.stVal	SPS	BOOLEAN	ST	A					LNK2LIV	Ethernet port 2 link status		Monitoring\Communication\Ethernet\Link statuses	
X2 port Ethernet channel			CFG	LD0.SCHLCCH2.PortMod.setVal	ENG	Enum	SP	B	1				Port 2 mode	Ethernet port mode	0=Off; 1=On	Configuration\Communication\Ethernet\Rear port(s)	
X2 port Ethernet channel			VER	LD0.SCHLCCH2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(SCHLCCH2)			

X3 port Ethernet channel

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
X3 port Ethernet channel			OUT	LD0.SCHLCCH3.ChLiv.stVal	SPS	BOOLEAN	ST	A		StatIed	P,H	MB,DN,I3	CH3LIV	Ethernet channel live		Monitoring\Communication\Ethernet\Activity	
X3 port Ethernet channel			OUT	LD0.SCHLCCH3.LnkLiv.stVal	SPS	BOOLEAN	ST	A					LNK3LIV	Ethernet port 3 link status		Monitoring\Communication\Ethernet\Link statuses	
X3 port Ethernet channel			CFG	LD0.SCHLCCH3.PortMod.setVal	ENG	Enum	SP	B	1				Port 3 mode	Ethernet port mode	0=Off; 1=On	Configuration\Communication\Ethernet\Rear port(s)	
X3 port Ethernet channel			VER	LD0.SCHLCCH3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(SCHLCCH3)			

SMVRCV1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SMVRCV1			OUT			Channel		ED2					UL1	(ACT output channel)			
SMVRCV1			OUT	LD0.SMVLSVM1.Beh.ch1		Channel		ED1					UL1	(ACT output channel)			
SMVRCV1			OUT			Channel		ED2					UL2	(ACT output channel)			
SMVRCV1			OUT	LD0.SMVLSVM1.Beh.ch2		Channel		ED1					UL2	(ACT output channel)			
SMVRCV1			OUT			Channel		ED2					UL3	(ACT output channel)			
SMVRCV1			OUT	LD0.SMVLSVM1.Beh.ch3		Channel		ED1					UL3	(ACT output channel)			
SMVRCV1			OUT			Channel		ED2					Uo	(ACT output channel)			
SMVRCV1			OUT	LD0.SMVLSVM1.Beh.chU0		Channel		ED1					Uo	(ACT output channel)			
SMVRCV1			MON	LD0.SMVLSVS1.St.stVal	SPS	BOOLEAN	ST	ED2						(Status of the subscription)			
SMVRCV1			MON	LD0.SMVLSVM1.St.stVal	SPS	BOOLEAN	ST	ED1						(Status of the subscription)			
SMVRCV1			VER	LD0.SMVLSVS1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED2,ED1	A					(Name plate)			
SMVRCV1			VER	LD0.SMVLSVM1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	A					(Name plate)			

Voltage (3UB,VT)

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Voltage (3UB,VT)			INP			Channel							UL1	(ACT input channel)			

Voltage (3UB,VT)			INP	LD0.UL1TVTR2.FuFail.stVal	SPS	BOOLEAN	ST	B	0				MINCB_OPEN	Active when external MCB opens protected voltage circuit		Monitoring\I/O status\Analog inputs\Voltage (3UB,VT)\Inputs	
Voltage (3UB,VT)			OUT	LD0.UL1TVTR2.Alm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ALARM	Alarm		Monitoring\I/O status\Analog inputs\Voltage (3UB,VT)\Outputs	
Voltage (3UB,VT)			OUT	LD0.UL1TVTR2.Wrn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	WARNING	Warning		Monitoring\I/O status\Analog inputs\Voltage (3UB,VT)\Outputs	
Voltage (3UB,VT)			CFG	LD0.UL1TVTR2.VRtg.setMag.f	ASG	FLOAT32	SP	B,I	20.000				Primary voltage	Primary rated voltage	0.100...440.000 kV	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL1TVTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr A	Phase A Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL1TVTR2.VRtgScy.setMag.f	ASG	FLOAT32	SP	B,I	100				Secondary voltage	Secondary rated voltage	60...210 V	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL1TVTR2.VConnTyp.setVal	ENG	Enum	SP	B,I	4				VT connection	Voltage transducer measurement connection	4=UL1	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL1TVTR2.VInTyp.setVal	ENG	Enum	SP	B,I	1				Voltage input type	Type of the voltage input	1=Voltage trafo	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL2TVTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr B	Phase B Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			CFG	LD0.UL3TVTR2.AngCor.setMag.f	ASG	FLOAT32	SP	B,I	0.0000				Angle Corr C	Phase C Voltage phasor angle correction of an external voltage transformer	-20.0000...20.0000 deg	Configuration\Analog inputs\Voltage (3UB,VT)	
Voltage (3UB,VT)			VER	LD0.UL1TVTR2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

IEC60870-5-103: IEC6870-5-103 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
IEC60870-5-103			INP	LD0.I3CLPRT1.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			OUT	LD0.I3CLPRT1.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CTR	LD0.I3CLPRT1.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CTR	LD0.I3CLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			MON	LD0.I3CLPRT1.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			MON	LD0.I3CLPRT1.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Checksum errors	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			MON	LD0.I3CLPRT1.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			MON	LD0.I3CLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Selects if this protocol instance is enabled or disabled	1=on; 5=off	Configuration\Communication\IEC60870-5-103\I3C01	

IEC60870-5-103			CFG	LD0.I3CLPRT1.CommIntnOv.stVal	SPS	BOOLEAN	ST	A					Internal Overflow	Internal Overflow: TRUE-System level overflow occured (indication only)		Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.CommPort.setVal	ENG	Enum	SP	B	1				Serial port	COM port	1=COM 1; 2=COM 2	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start frame delay in chars	0...20 char	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End frame delay in chars	0...20 char	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla2Tms.setVal	ING	INT32	SP	A	30				Class2Interval	Interval in seconds to send class 2 response	0...86400 s	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla2Fr1.setVal	ENG	Enum	SP	B	6				Frame1InUse	Active Class2 Frame 1	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla2Fr2.setVal	ENG	Enum	SP	B	-1				Frame2InUse	Active Class2 Frame 2	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla2Fr3.setVal	ENG	Enum	SP	B	-1				Frame3InUse	Active Class2 Frame 3	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla2Fr4.setVal	ENG	Enum	SP	B	-1				Frame4InUse	Active Class2 Frame 4	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.UsrFcnTyp.setVal	ING	INT32	SP	A	10				UsrFunType	Function type for User Class 2 Frame	0...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.UsrInfNum.setVal	ING	INT32	SP	A	230				UsrInfNo	Information Number for User Class2 Frame	0...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla1OvInd.setVal	ENG	Enum	SP	A	2				Class1OvInd	Overflow Indication	0=No indication; 1=Both edges; 2=Rising edge	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla1FcnTyp.setVal	ING	INT32	SP	A	10				Class1OvFType	Function Type for Class 1 overflow indication	0...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla1InfNum.setVal	ING	INT32	SP	A	255				Class1OvInfNo	Information Number for Class 1 overflow indication	0...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla1OvBkOf.setVal	ING	INT32	SP	A	500				Class1OvBackOff	Backoff Range for Class1 buffer	0...500	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.GIOpt.setVal	ENG	Enum	SP	A	0				GI Optimize	Optimize GI traffic	0=Standard behaviour; 1=Skip spontaneous; 2=Only overflown; 3=Combined	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.DevFcnTyp.setVal	ING	INT32	SP	A	9				DevFunType	Device Function Type	0...255	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.Cla1Prio.setVal	ENG	Enum	SP	A	0				Class1Priority	Class 1 data sending priority relationship between Events and Disturbance Recorder data.	0=Ev High; 1=Ev/DR Equal; 2=DR High	Configuration\Communication\IEC60870-5-103\I3C01	

IEC60870-5-103			CFG	LD0.I3CLPRT1.RcdEnaMod.setVal	SPG	BOOLEAN	SP	B	0				DR Notification	Disturbance Recorder spontaneous indications enabled/disabled		Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.BlkMon.setVal	ENG	Enum	SP	A	0				Block Monitoring	Blocking of Monitoring Direction	0=Not in use; 1=Discard events; 2=Keep events	Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			CFG	LD0.I3CLPRT1.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C01	
IEC60870-5-103			VER	LD0.I3CLPRT1.NamPlt.swRev	LPL	VisString255 (20)	DC		C					(Name plate)			

IEC60870-5-103: IEC6870-5-103 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
IEC60870-5-103			INP	LD0.I3CLPRT2.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			OUT	LD0.I3CLPRT2.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CTR	LD0.I3CLPRT2.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CTR	LD0.I3CLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			MON	LD0.I3CLPRT2.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			MON	LD0.I3CLPRT2.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Checksum errors	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			MON	LD0.I3CLPRT2.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			MON	LD0.I3CLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Selects if this protocol instance is enabled or disabled	1=on; 5=off	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.CommIntnOv.stVal	SPS	BOOLEAN	ST	A					Internal Overflow	Internal Overflow: TRUE-System level overflow occured (indication only)		Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.CommPort.setVal	ENG	Enum	SP	B	1				Serial port	COM port	1=COM 1; 2=COM 2	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start frame delay in chars	0...20 char	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End frame delay in chars	0...20 char	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla2Tms.setVal	ING	INT32	SP	A	30				Class2Interval	Interval in seconds to send class 2 response	0...86400 s	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla2Fr1.setVal	ENG	Enum	SP	B	6				Frame1InUse	Active Class2 Frame 1	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3;	Configuration\Communication\IEC60870-5-103\I3C02	

															4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7			
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla2Fr2.setVal	ENG	Enum	SP	B	-1				Frame2InUse	Active Class2 Frame 2	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla2Fr3.setVal	ENG	Enum	SP	B	-1				Frame3InUse	Active Class2 Frame 3	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla2Fr4.setVal	ENG	Enum	SP	B	-1				Frame4InUse	Active Class2 Frame 4	-1=Not in use; 0=User frame; 1=Standard frame 1; 2=Standard frame 2; 3=Standard frame 3; 4=Standard frame 4; 5=Standard frame 5; 6=Private frame 6; 7=Private frame 7	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.UsrFcnTyp.setVal	ING	INT32	SP	A	10				UsrFType	Function type for User Class 2 Frame	0...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.UsrInfNum.setVal	ING	INT32	SP	A	230				UsrInfNo	Information Number for User Class2 Frame	0...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla1OvInd.setVal	ENG	Enum	SP	A	2				Class1OvInd	Overflow Indication	0=No indication; 1=Both edges; 2=Rising edge	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla1FcnTyp.setVal	ING	INT32	SP	A	10				Class1OvFType	Function Type for Class 1 overflow indication	0...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla1InfNum.setVal	ING	INT32	SP	A	255				Class1OvInfNo	Information Number for Class 1 overflow indication	0...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla1OvBkOf.setVal	ING	INT32	SP	A	500				Class1OvBackOff	Backoff Range for Class1 buffer	0...500	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.GIOpt.setVal	ENG	Enum	SP	A	0				GI Optimize	Optimize GI traffic	0=Standard behaviour; 1=Skip spontaneous; 2=Only overflown; 3=Combined	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.DevFcnTyp.setVal	ING	INT32	SP	A	9				DevFunType	Device Function Type	0...255	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.Cla1Prio.setVal	ENG	Enum	SP	A	0				Class1Priority	Class 1 data sending priority relationship between Events and Disturbance Recorder data.	0=Ev High; 1=Ev/DR Equal; 2=DR High	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.RcdEnaMod.setVal	SPG	BOOLEAN	SP	B	0				DR Notification	Disturbance Recorder spontaneous indications enabled/disabled		Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.BlkMon.setVal	ENG	Enum	SP	A	0				Block Monitoring	Blocking of Monitoring Direction	0=Not in use; 1=Discard events; 2=Keep events	Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			CFG	LD0.I3CLPRT2.EnCntFrz.Oper.ctlVal	SPC	BOOLEAN	CO	A	0			I3	EC_FRZ	Control point for freezing energy counters		Configuration\Communication\IEC60870-5-103\I3C02	
IEC60870-5-103			VER	LD0.I3CLPRT2.NamPlt.swRev	LPL	VisString255 (20)	DC		C					(Name plate)			

DNP 3.0: DNP3.0 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

DNP 3.0			OUT	LD0.DNPLPRT1.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CTR	LD0.DNPLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.LnkErrCnt.stVal	INS	INT32	ST	B					Link errors	Link layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.PhyErrCnt.stVal	INS	INT32	ST	B					Physical errors	Physical layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.TranErrCnt.stVal	INS	INT32	ST	B					Transport errors	Transport layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.MapErrCnt.stVal	INS	INT32	ST	B					Mapping errors	Mapping errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			MON	LD0.DNPLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Operation Off / On	1=on; 5=off	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.CommPort.setVal	ENG	Enum	SP	B,C	3				Port	Communication interface selection	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1; 4=Ethernet TCP+UDP 1	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.UnitAddr.setVal	ING	INT32	SP	B	1				Unit address	DNP unit address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.MstrAddr.setVal	ING	INT32	SP	B	3				Master address	DNP master and UR address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.MapSel.setVal	ING	INT32	SP	A,C	1				Mapping select	Mapping select	1...2	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.SynIntvTmm.setVal	ING	INT32	SP	A	30				Need time interval	Period to set IIN need time bit	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.TmFrm.setVal	ENG	Enum	SP	A	1				Time format	UTC or local. Coordinate with master.	0=UTC; 1=Local	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.CROBSelTms.setVal	ING	INT32	SP	A	10				CROB select timeout	Control Relay Output Block select timeout	1...65535 s	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.LnkCnf.setVal	ENG	Enum	SP	A	0				Data link confirm	Data link confirm mode	0=Never; 1=Only Multiframe; 2=Always	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.LnkCnfTmms.setVal	ING	INT32	SP	A	3000				Data link confirm TO	Data link confirm timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.LnkReLim.setVal	ING	INT32	SP	A	3				Data link retries	Data link retries count	0...65535	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.RxTxDlTmms.setVal	ING	INT32	SP	A	0				Data link Rx to Tx delay	Turnaround transmission delay	0...255 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.CharDl.setVal	ING	INT32	SP	A	4				Data link inter char delay	Inter character delay for incoming messages	0...20 char	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.AplLayCnf.setVal	ENG	Enum	SP	A	1				App layer confirm	Application layer confirm mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	

DNP 3.0			CFG	LD0.DNPLPRT1.AplCnfTmms.setVal	ING	INT32	SP	A	5000				App confirm TO	Application layer confirm and UR timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.AplLayFrg.setVal	ING	INT32	SP	A	2048				App layer fragment	Application layer fragment size	256...2048 bytes	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URMod.setVal	ENG	Enum	SP	B	1				UR mode	Unsolicited responses mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URRe.setVal	ING	INT32	SP	A	3				UR retries	Unsolicited retries before switching to UR offline mode	0...65535	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URReTmms.setVal	ING	INT32	SP	A	5000				UR TO	Unsolicited response timeout	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.UROfTm.setVal	ING	INT32	SP	A	15				UR offline interval	Unsolicited offline interval	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla1.setVal	ING	INT32	SP	A	2				UR Class 1 Min events	Min number of class 1 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla1Tmms.setVal	ING	INT32	SP	A	50				UR Class 1 TO	Max holding time for class 1 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla2.setVal	ING	INT32	SP	A	2				UR Class 2 Min events	Min number of class 2 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla2Tmms.setVal	ING	INT32	SP	A	50				UR Class 2 TO	Max holding time for class 2 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla3.setVal	ING	INT32	SP	A	2				UR Class 3 Min events	Min number of class 3 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URCla3Tmms.setVal	ING	INT32	SP	A	50				UR Class 3 TO	Max holding time for class 3 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.URLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master UR	Legacy DNP master unsolicited mode support. When enabled relay does not send initial unsolicited message.	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.SBOLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master SBO	Legacy DNP Master SBO sequence number relax enable	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa1.setVal	ENG	Enum	SP	B	1				Default Var Obj 01	1=BI; 2=BI with status.	1=1:BI; 2=2:BI&status	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa2.setVal	ENG	Enum	SP	B	2				Default Var Obj 02	1=BI event; 2=BI event with time.	1=1:BI event; 2=2:BI event&time	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa3.setVal	ENG	Enum	SP	B	1				Default Var Obj 03	1=DBI; 2=DBI with status.	1=1:DBI; 2=2:DBI&status	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa4.setVal	ENG	Enum	SP	B	2				Default Var Obj 04	1=DBI event; 2=DBI event with time.	1=1:DBI event; 2=2:DBI event&time	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa20.setVal	ENG	Enum	SP	B	2				Default Var Obj 20	1=32 bit counter; 2=16 bit counter; 5=32 bit counter without flag; 6=16 bit counter without flag.	1=1:32bit Cnt; 2=2:16bit Cnt; 5=5:32bit Cnt noflag; 6=6:16bit Cnt noflag	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa21.setVal	ENG	Enum	SP	B	6				Default Var Obj 21	1=32 bit frz counter; 2=16 bit frz counter; 5=32 bit frz counter with time; 6=16 bit frz counter with time; 9=32 bit frz counter without flag;10=16 bit frz counter without flag.	1=1:32bit FrzCnt; 2=2:16bit FrzCnt; 5=5:32bit FrzCnt&time; 6=6:16bit FrzCnt&time; 9=9:32bit FrzCnt noflag; 10=10:16bit FrzCnt noflag	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa22.setVal	ENG	Enum	SP	B	6				Default Var Obj 22	1=32 bit counter event; 2=16 bit counter event; 5=32 bit counter event with time; 6=16 bit counter event with time.	1=1:32bit Cnt evt; 2=2:16bit Cnt evt; 5=5:32bit Cnt evt&time; 6=6:16bit Cnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 1	

DNP 3.0			CFG	LD0.DNPLPRT1.DftVa23.setVal	ENG	Enum	SP	B	6				Default Var Obj 23	1=32 bit frz counter event; 2=16 bit frz counter event; 5=32 bit frz counter event with time; 6=16 bit frz counter event with time.	1=1:32bit FrzCnt evt; 2=2:16bit FrzCnt evt; 5=5:32bit FrzCnt evt&time; 6=6:16bit FrzCnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa30.setVal	ENG	Enum	SP	B	5				Default Var Obj 30	1=32 bit AI; 2=16 bit AI; 3=32 bit AI without flag; 4=16 bit AI without flag; 5=AI float; 6=AI double.	1=1:32bit AI; 2=2:16bit AI; 3=3:32bit AI noflag; 4=4:16bit AI noflag; 5=5:AI float; 6=6:AI double	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa32.setVal	ENG	Enum	SP	B	7				Default Var Obj 32	1=32 bit AI event; 2=16 bit AI event; 3=32 bit AI event with time; 4=16 bit AI event with time; 5=float AI event; 6=double AI event; 7=float AI event with time; 8=double AI event with time.	1=1:32bit AI evt; 2=2:16bit AI evt; 3=3:32bit AI evt&time; 4=4:16bit AI evt&time; 5=5: float AI evt; 6=6:double AI evt; 7=7:float AI evt&time; 8=8:double AI evt&time	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa40.setVal	ENG	Enum	SP	B	2				Default Var Obj 40	1=32 bit AO; 2=16 bit AO; 3=AO float; 4=AO double.	1=1:32bit AO; 2=2:16bit AO; 3=3:AO float; 4=4:AO double	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.DftVa42.setVal	ENG	Enum	SP	B	4				Default Var Obj 42	1=32 bit AO event; 2=16 bit AO event; 3=32 bit AO event with time; 4=16 bit AO event with time; 5=float AO event; 6=double AO event; 7=float AO event with time; 8=double AO event with time.	1=1:32bit AO evt; 2=2:16bit AO evt; 3=3:32bit AO evt&time; 4=4:16bit AO evt&time; 5=5:float AO evt; 6=6:double AO evt; 7=7:float AO evt&time; 8=8:double AO evt&time	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.VldAddr.setVal	ENG	Enum	SP	A	1				Validate master addr	Validate master address on receive	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.SelfAddr.setVal	ENG	Enum	SP	A	2				Self address	Support self address query function	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.ChLivTms.setVal	ING	INT32	SP	A	0				Link keep-alive	Link keep-alive interval for DNP	0...65535 s	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.TCPAuth.setVal	ENG	Enum	SP	A	2				TCP write authority	0=no client controls allowed; 1=Controls allowed by registered clients; 2=Controls allowed by all clients	0=No clients; 1=Reg. clients; 2=All clients	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.TCPPort.setVal	ING	INT32	SP	A,C	20000				TCP port	TCP Port used on ethernet communication	20000...65535	Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			CFG	LD0.DNPLPRT1.CommPort.eIp	ENG	VisString255 (20)	EX	ED1	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 1	
DNP 3.0			VER	LD0.DNPLPRT1.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

DNP 3.0: DNP3.0 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DNP 3.0			OUT	LD0.DNPLPRT2.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CTR	LD0.DNPLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	

DNP 3.0			MON	LD0.DNPLPRT2.LnkErrCnt.stVal	INS	INT32	ST	B					Link errors	Link layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.PhyErrCnt.stVal	INS	INT32	ST	B					Physical errors	Physical layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.TranErrCnt.stVal	INS	INT32	ST	B					Transport errors	Transport layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.MapErrCnt.stVal	INS	INT32	ST	B					Mapping errors	Mapping errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			MON	LD0.DNPLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Operation Off / On	1=on; 5=off	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.CommPort.setVal	ENG	Enum	SP	B,C	3				Port	Communication interface selection	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1; 4=Ethernet TCP+UDP 1	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.UnitAddr.setVal	ING	INT32	SP	B	1				Unit address	DNP unit address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.MstrAddr.setVal	ING	INT32	SP	B	3				Master address	DNP master and UR address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.MapSel.setVal	ING	INT32	SP	A,C	1				Mapping select	Mapping select	1...2	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.SynIntvTmm.setVal	ING	INT32	SP	A	30				Need time interval	Period to set IIN need time bit	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.TmFrm.setVal	ENG	Enum	SP	A	1				Time format	UTC or local. Coordinate with master.	0=UTC; 1=Local	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.CROBSelTms.setVal	ING	INT32	SP	A	10				CROB select timeout	Control Relay Output Block select timeout	1...65535 s	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.LnkCnf.setVal	ENG	Enum	SP	A	0				Data link confirm	Data link confirm mode	0=Never; 1=Only Multiframe; 2=Always	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.LnkCnfTmms.setVal	ING	INT32	SP	A	3000				Data link confirm TO	Data link confirm timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.LnkReLim.setVal	ING	INT32	SP	A	3				Data link retries	Data link retries count	0...65535	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.RxTxDlTmms.setVal	ING	INT32	SP	A	0				Data link Rx to Tx delay	Turnaround transmission delay	0...255 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.CharDl.setVal	ING	INT32	SP	A	4				Data link inter char delay	Inter character delay for incoming messages	0...20 char	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.AplLayCnf.setVal	ENG	Enum	SP	A	1				App layer confirm	Application layer confirm mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.AplCnfTmms.setVal	ING	INT32	SP	A	5000				App confirm TO	Application layer confirm and UR timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.AplLayFrg.setVal	ING	INT32	SP	A	2048				App layer fragment	Application layer fragment size	256...2048 bytes	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URMod.setVal	ENG	Enum	SP	B	1				UR mode	Unsolicited responses mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URRe.setVal	ING	INT32	SP	A	3				UR retries	Unsolicited retries before switching to UR offline mode	0...65535	Configuration\Communication\DNP3.0\DNP3.0 2	

DNP 3.0			CFG	LD0.DNPLPRT2.URReTmms.setVal	ING	INT32	SP	A	5000				UR TO	Unsolicited response timeout	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.UROfTm.setVal	ING	INT32	SP	A	15				UR offline interval	Unsolicited offline interval	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla1.setVal	ING	INT32	SP	A	2				UR Class 1 Min events	Min number of class 1 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla1Tmms.setVal	ING	INT32	SP	A	50				UR Class 1 TO	Max holding time for class 1 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla2.setVal	ING	INT32	SP	A	2				UR Class 2 Min events	Min number of class 2 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla2Tmms.setVal	ING	INT32	SP	A	50				UR Class 2 TO	Max holding time for class 2 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla3.setVal	ING	INT32	SP	A	2				UR Class 3 Min events	Min number of class 3 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URCla3Tmms.setVal	ING	INT32	SP	A	50				UR Class 3 TO	Max holding time for class 3 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.URLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master UR	Legacy DNP master unsolicited mode support. When enabled relay does not send initial unsolicited message.	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.SBOLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master SBO	Legacy DNP Master SBO sequence number relax enable	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa1.setVal	ENG	Enum	SP	B	1				Default Var Obj 01	1=BI; 2=BI with status.	1=1:BI; 2=2:BI&status	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa2.setVal	ENG	Enum	SP	B	2				Default Var Obj 02	1=BI event; 2=BI event with time.	1=1:BI event; 2=2:BI event&time	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa3.setVal	ENG	Enum	SP	B	1				Default Var Obj 03	1=DBI; 2=DBI with status.	1=1:DBI; 2=2:DBI&status	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa4.setVal	ENG	Enum	SP	B	2				Default Var Obj 04	1=DBI event; 2=DBI event with time.	1=1:DBI event; 2=2:DBI event&time	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa20.setVal	ENG	Enum	SP	B	2				Default Var Obj 20	1=32 bit counter; 2=16 bit counter; 5=32 bit counter without flag; 6=16 bit counter without flag.	1=1:32bit Cnt; 2=2:16bit Cnt; 5=5:32bit Cnt noflag; 6=6:16bit Cnt noflag	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa21.setVal	ENG	Enum	SP	B	6				Default Var Obj 21	1=32 bit frz counter; 2=16 bit frz counter; 5=32 bit frz counter with time; 6=16 bit frz counter with time; 9=32 bit frz counter without flag;10=16 bit frz counter without flag.	1=1:32bit FrzCnt; 2=2:16bit FrzCnt; 5=5:32bit FrzCnt&time; 6=6:16bit FrzCnt&time; 9=9:32bit FrzCnt noflag; 10=10:16bit FrzCnt noflag	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa22.setVal	ENG	Enum	SP	B	6				Default Var Obj 22	1=32 bit counter event; 2=16 bit counter event; 5=32 bit counter event with time; 6=16 bit counter event with time.	1=1:32bit Cnt evt; 2=2:16bit Cnt evt; 5=5:32bit Cnt evt&time; 6=6:16bit Cnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa23.setVal	ENG	Enum	SP	B	6				Default Var Obj 23	1=32 bit frz counter event; 2=16 bit frz counter event; 5=32 bit frz counter event with time; 6=16 bit frz counter event with time.	1=1:32bit FrzCnt evt; 2=2:16bit FrzCnt evt; 5=5:32bit FrzCnt evt&time; 6=6:16bit FrzCnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa30.setVal	ENG	Enum	SP	B	5				Default Var Obj 30	1=32 bit AI; 2=16 bit AI; 3=32 bit AI without flag; 4=16 bit AI without flag; 5=AI float; 6=AI double.	1=1:32bit AI; 2=2:16bit AI; 3=3:32bit AI noflag; 4=4:16bit AI noflag; 5=5:AI float; 6=6:AI double	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa32.setVal	ENG	Enum	SP	B	7				Default Var Obj 32	1=32 bit AI event; 2=16 bit AI event; 3=32 bit AI event with time; 4=16 bit AI event with time; 5=float AI event; 6=double AI event; 7=float AI event with time; 8=double AI event with time.	1=1:32bit AI evt; 2=2:16bit AI evt; 3=3:32bit AI evt&time; 4=4:16bit AI evt&time; 5=5: float AI evt; 6=6:double AI	Configuration\Communication\DNP3.0\DNP3.0 2	

															evt; 7=7:float AI evt&time; 8=8:double AI evt&time		
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa40.setVal	ENG	Enum	SP	B	2				Default Var Obj 40	1=32 bit AO; 2=16 bit AO; 3=AO float; 4=AO double.	1=1:32bit AO; 2=2:16bit AO; 3=3:AO float; 4=4:AO double	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.DftVa42.setVal	ENG	Enum	SP	B	4				Default Var Obj 42	1=32 bit AO event; 2=16 bit AO event; 3=32 bit AO event with time; 4=16 bit AO event with time; 5=float AO event; 6=double AO event; 7=float AO event with time; 8=double AO event with time.	1=1:32bit AO evt; 2=2:16bit AO evt; 3=3:32bit AO evt&time; 4=4:16bit AO evt&time; 5=5:float AO evt; 6=6:double AO evt; 7=7:float AO evt&time; 8=8:double AO evt&time	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.VldAddr.setVal	ENG	Enum	SP	A	1				Validate master addr	Validate master address on receive	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.SelfAddr.setVal	ENG	Enum	SP	A	2				Self address	Support self address query function	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.ChLivTms.setVal	ING	INT32	SP	A	0				Link keep-alive	Link keep-alive interval for DNP	0...65535 s	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.TCPAuth.setVal	ENG	Enum	SP	A	2				TCP write authority	0=no client controls allowed; 1=Controls allowed by registered clients; 2=Controls allowed by all clients	0=No clients; 1=Reg. clients; 2=All clients	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.TCPPort.setVal	ING	INT32	SP	A,C	20001				TCP port	TCP Port used on ethernet communication	20000...65535	Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			CFG	LD0.DNPLPRT2.CommPort.eIp	ENG	VisString255 (20)	EX	ED1	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 2	
DNP 3.0			VER	LD0.DNPLPRT2.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

DNP 3.0: DNP3.0 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DNP 3.0			OUT	LD0.DNPLPRT3.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CTR	LD0.DNPLPRT3.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.LnkErrCnt.stVal	INS	INT32	ST	B					Link errors	Link layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.PhyErrCnt.stVal	INS	INT32	ST	B					Physical errors	Physical layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.TranErrCnt.stVal	INS	INT32	ST	B					Transport errors	Transport layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			MON	LD0.DNPLPRT3.MapErrCnt.stVal	INS	INT32	ST	B					Mapping errors	Mapping errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 3	

DNP 3.0			MON	LD0.DNPLPRT3.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Operation Off / On	1=on; 5=off	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.CommPort.setVal	ENG	Enum	SP	B,C	3				Port	Communication interface selection	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1; 4=Ethernet TCP+UDP 1	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.UnitAddr.setVal	ING	INT32	SP	B	1				Unit address	DNP unit address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.MstrAddr.setVal	ING	INT32	SP	B	3				Master address	DNP master and UR address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.MapSel.setVal	ING	INT32	SP	A,C	1				Mapping select	Mapping select	1...2	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.SynIntvTmm.setVal	ING	INT32	SP	A	30				Need time interval	Period to set IIN need time bit	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.TmFrm.setVal	ENG	Enum	SP	A	1				Time format	UTC or local. Coordinate with master.	0=UTC; 1=Local	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.CROBSelTms.setVal	ING	INT32	SP	A	10				CROB select timeout	Control Relay Output Block select timeout	1...65535 s	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.LnkCnf.setVal	ENG	Enum	SP	A	0				Data link confirm	Data link confirm mode	0=Never; 1=Only Multiframe; 2=Always	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.LnkCnfTmms.setVal	ING	INT32	SP	A	3000				Data link confirm TO	Data link confirm timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.LnkReLim.setVal	ING	INT32	SP	A	3				Data link retries	Data link retries count	0...65535	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.RxTxDlTmms.setVal	ING	INT32	SP	A	0				Data link Rx to Tx delay	Turnaround transmission delay	0...255 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.CharDl.setVal	ING	INT32	SP	A	4				Data link inter char delay	Inter character delay for incoming messages	0...20 char	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.AplLayCnf.setVal	ENG	Enum	SP	A	1				App layer confirm	Application layer confirm mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.AplCnfTmms.setVal	ING	INT32	SP	A	5000				App confirm TO	Application layer confirm and UR timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.AplLayFrg.setVal	ING	INT32	SP	A	2048				App layer fragment	Application layer fragment size	256...2048 bytes	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URMod.setVal	ENG	Enum	SP	B	1				UR mode	Unsolicited responses mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URRe.setVal	ING	INT32	SP	A	3				UR retries	Unsolicited retries before switching to UR offline mode	0...65535	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URReTmms.setVal	ING	INT32	SP	A	5000				UR TO	Unsolicited response timeout	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.UROfTm.setVal	ING	INT32	SP	A	15				UR offline interval	Unsolicited offline interval	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URCla1.setVal	ING	INT32	SP	A	2				UR Class 1 Min events	Min number of class 1 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URCla1Tmms.setVal	ING	INT32	SP	A	50				UR Class 1 TO	Max holding time for class 1 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	

DNP 3.0			CFG	LD0.DNPLPRT3.URCla2.setVal	ING	INT32	SP	A	2				UR Class 2 Min events	Min number of class 2 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URCla2Tmms.setVal	ING	INT32	SP	A	50				UR Class 2 TO	Max holding time for class 2 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URCla3.setVal	ING	INT32	SP	A	2				UR Class 3 Min events	Min number of class 3 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URCla3Tmms.setVal	ING	INT32	SP	A	50				UR Class 3 TO	Max holding time for class 3 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.URLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master UR	Legacy DNP master unsolicited mode support. When enabled relay does not send initial unsolicited message.	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.SBOLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master SBO	Legacy DNP Master SBO sequence number relax enable	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa1.setVal	ENG	Enum	SP	B	1				Default Var Obj 01	1=BI; 2=BI with status.	1=1:BI; 2=2:BI&status	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa2.setVal	ENG	Enum	SP	B	2				Default Var Obj 02	1=BI event; 2=BI event with time.	1=1:BI event; 2=2:BI event&time	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa3.setVal	ENG	Enum	SP	B	1				Default Var Obj 03	1=DBI; 2=DBI with status.	1=1:DBI; 2=2:DBI&status	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa4.setVal	ENG	Enum	SP	B	2				Default Var Obj 04	1=DBI event; 2=DBI event with time.	1=1:DBI event; 2=2:DBI event&time	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa20.setVal	ENG	Enum	SP	B	2				Default Var Obj 20	1=32 bit counter; 2=16 bit counter; 5=32 bit counter without flag; 6=16 bit counter without flag.	1=1:32bit Cnt; 2=2:16bit Cnt; 5=5:32bit Cnt noflag; 6=6:16bit Cnt noflag	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa21.setVal	ENG	Enum	SP	B	6				Default Var Obj 21	1=32 bit frz counter; 2=16 bit frz counter; 5=32 bit frz counter with time; 6=16 bit frz counter with time; 9=32 bit frz counter without flag;10=16 bit frz counter without flag.	1=1:32bit FrzCnt; 2=2:16bit FrzCnt; 5=5:32bit FrzCnt&time; 6=6:16bit FrzCnt&time; 9=9:32bit FrzCnt noflag; 10=10:16bit FrzCnt noflag	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa22.setVal	ENG	Enum	SP	B	6				Default Var Obj 22	1=32 bit counter event; 2=16 bit counter event; 5=32 bit counter event with time; 6=16 bit counter event with time.	1=1:32bit Cnt evt; 2=2:16bit Cnt evt; 5=5:32bit Cnt evt&time; 6=6:16bit Cnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa23.setVal	ENG	Enum	SP	B	6				Default Var Obj 23	1=32 bit frz counter event; 2=16 bit frz counter event; 5=32 bit frz counter event with time; 6=16 bit frz counter event with time.	1=1:32bit FrzCnt evt; 2=2:16bit FrzCnt evt; 5=5:32bit FrzCnt evt&time; 6=6:16bit FrzCnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa30.setVal	ENG	Enum	SP	B	5				Default Var Obj 30	1=32 bit AI; 2=16 bit AI; 3=32 bit AI without flag; 4=16 bit AI without flag; 5=AI float; 6=AI double.	1=1:32bit AI; 2=2:16bit AI; 3=3:32bit AI noflag; 4=4:16bit AI noflag; 5=5:AI float; 6=6:AI double	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa32.setVal	ENG	Enum	SP	B	7				Default Var Obj 32	1=32 bit AI event; 2=16 bit AI event; 3=32 bit AI event with time; 4=16 bit AI event with time; 5=float AI event; 6=double AI event; 7=float AI event with time; 8=double AI event with time.	1=1:32bit AI evt; 2=2:16bit AI evt; 3=3:32bit AI evt&time; 4=4:16bit AI evt&time; 5=5: float AI evt; 6=6:double AI evt; 7=7:float AI evt&time; 8=8:double AI evt&time	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa40.setVal	ENG	Enum	SP	B	2				Default Var Obj 40	1=32 bit AO; 2=16 bit AO; 3=AO float; 4=AO double.	1=1:32bit AO; 2=2:16bit AO; 3=3:AO float; 4=4:AO double	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.DftVa42.setVal	ENG	Enum	SP	B	4				Default Var Obj 42	1=32 bit AO event; 2=16 bit AO event; 3=32 bit AO event with time; 4=16 bit AO event with time; 5=float AO event; 6=double AO event; 7=float AO event with time; 8=double AO event with time.	1=1:32bit AO evt; 2=2:16bit AO evt; 3=3:32bit AO evt&time; 4=4:16bit AO evt&time; 5=5:float AO evt; 6=6:double AO evt; 7=7:float AO evt&time; 8=8:double AO evt&time	Configuration\Communication\DNP3.0\DNP3.0 3	

DNP 3.0			CFG	LD0.DNPLPRT3.VldAddr.setVal	ENG	Enum	SP	A	1				Validate master addr	Validate master address on receive	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.SelfAddr.setVal	ENG	Enum	SP	A	2				Self address	Support self address query function	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.ChLivTms.setVal	ING	INT32	SP	A	0				Link keep-alive	Link keep-alive interval for DNP	0...65535 s	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.TCPAuth.setVal	ENG	Enum	SP	A	2				TCP write authority	0=no client controls allowed; 1=Controls allowed by registered clients; 2=Controls allowed by all clients	0=No clients; 1=Reg. clients; 2=All clients	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.TCPPort.setVal	ING	INT32	SP	A,C	20002				TCP port	TCP Port used on ethernet communication	20000...65535	Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			CFG	LD0.DNPLPRT3.CommPort.eIp	ENG	VisString255 (20)	EX	ED1	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 3	
DNP 3.0			VER	LD0.DNPLPRT3.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

DNP 3.0: DNP3.0 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DNP 3.0			OUT	LD0.DNPLPRT4.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CTR	LD0.DNPLPRT4.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.LnkErrCnt.stVal	INS	INT32	ST	B					Link errors	Link layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.PhyErrCnt.stVal	INS	INT32	ST	B					Physical errors	Physical layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.TranErrCnt.stVal	INS	INT32	ST	B					Transport errors	Transport layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.MapErrCnt.stVal	INS	INT32	ST	B					Mapping errors	Mapping errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			MON	LD0.DNPLPRT4.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Operation Off / On	1=on; 5=off	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.CommPort.setVal	ENG	Enum	SP	B,C	3				Port	Communication interface selection	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1; 4=Ethernet TCP+UDP 1	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.UnitAddr.setVal	ING	INT32	SP	B	1				Unit address	DNP unit address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 4	

DNP 3.0			CFG	LD0.DNPLPRT4.MstrAddr.setVal	ING	INT32	SP	B	3				Master address	DNP master and UR address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.MapSel.setVal	ING	INT32	SP	A,C	1				Mapping select	Mapping select	1...2	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.SynIntvTmm.setVal	ING	INT32	SP	A	30				Need time interval	Period to set IIN need time bit	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.TmFrm.setVal	ENG	Enum	SP	A	1				Time format	UTC or local. Coordinate with master.	0=UTC; 1=Local	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.CROBSelTms.setVal	ING	INT32	SP	A	10				CROB select timeout	Control Relay Output Block select timeout	1...65535 s	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.LnkCnf.setVal	ENG	Enum	SP	A	0				Data link confirm	Data link confirm mode	0=Never; 1=Only Multiframe; 2=Always	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.LnkCnfTmms.setVal	ING	INT32	SP	A	3000				Data link confirm TO	Data link confirm timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.LnkReLim.setVal	ING	INT32	SP	A	3				Data link retries	Data link retries count	0...65535	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.RxTxDlTmms.setVal	ING	INT32	SP	A	0				Data link Rx to Tx delay	Turnaround transmission delay	0...255 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.CharDl.setVal	ING	INT32	SP	A	4				Data link inter char delay	Inter character delay for incoming messages	0...20 char	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.AplLayCnf.setVal	ENG	Enum	SP	A	1				App layer confirm	Application layer confirm mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.AplCnfTmms.setVal	ING	INT32	SP	A	5000				App confirm TO	Application layer confirm and UR timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.AplLayFrg.setVal	ING	INT32	SP	A	2048				App layer fragment	Application layer fragment size	256...2048 bytes	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URMod.setVal	ENG	Enum	SP	B	1				UR mode	Unsolicited responses mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URRe.setVal	ING	INT32	SP	A	3				UR retries	Unsolicited retries before switching to UR offline mode	0...65535	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URReTmms.setVal	ING	INT32	SP	A	5000				UR TO	Unsolicited response timeout	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.UROfTm.setVal	ING	INT32	SP	A	15				UR offline interval	Unsolicited offline interval	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla1.setVal	ING	INT32	SP	A	2				UR Class 1 Min events	Min number of class 1 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla1Tmms.setVal	ING	INT32	SP	A	50				UR Class 1 TO	Max holding time for class 1 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla2.setVal	ING	INT32	SP	A	2				UR Class 2 Min events	Min number of class 2 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla2Tmms.setVal	ING	INT32	SP	A	50				UR Class 2 TO	Max holding time for class 2 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla3.setVal	ING	INT32	SP	A	2				UR Class 3 Min events	Min number of class 3 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.URCla3Tmms.setVal	ING	INT32	SP	A	50				UR Class 3 TO	Max holding time for class 3 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 4	

DNP 3.0			CFG	LD0.DNPLPRT4.URLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master UR	Legacy DNP master unsolicited mode support. When enabled relay does not send initial unsolicited message.	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.SBOLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master SBO	Legacy DNP Master SBO sequence number relax enable	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa1.setVal	ENG	Enum	SP	B	1				Default Var Obj 01	1=BI; 2=BI with status.	1=1:BI; 2=2:BI&status	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa2.setVal	ENG	Enum	SP	B	2				Default Var Obj 02	1=BI event; 2=BI event with time.	1=1:BI event; 2=2:BI event&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa3.setVal	ENG	Enum	SP	B	1				Default Var Obj 03	1=DBI; 2=DBI with status.	1=1:DBI; 2=2:DBI&status	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa4.setVal	ENG	Enum	SP	B	2				Default Var Obj 04	1=DBI event; 2=DBI event with time.	1=1:DBI event; 2=2:DBI event&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa20.setVal	ENG	Enum	SP	B	2				Default Var Obj 20	1=32 bit counter; 2=16 bit counter; 5=32 bit counter without flag; 6=16 bit counter without flag.	1=1:32bit Cnt; 2=2:16bit Cnt; 5=5:32bit Cnt noflag; 6=6:16bit Cnt noflag	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa21.setVal	ENG	Enum	SP	B	6				Default Var Obj 21	1=32 bit frz counter; 2=16 bit frz counter; 5=32 bit frz counter with time; 6=16 bit frz counter with time; 9=32 bit frz counter without flag;10=16 bit frz counter without flag.	1=1:32bit FrzCnt; 2=2:16bit FrzCnt; 5=5:32bit FrzCnt&time; 6=6:16bit FrzCnt&time; 9=9:32bit FrzCnt noflag; 10=10:16bit FrzCnt noflag	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa22.setVal	ENG	Enum	SP	B	6				Default Var Obj 22	1=32 bit counter event; 2=16 bit counter event; 5=32 bit counter event with time; 6=16 bit counter event with time.	1=1:32bit Cnt evt; 2=2:16bit Cnt evt; 5=5:32bit Cnt evt&time; 6=6:16bit Cnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa23.setVal	ENG	Enum	SP	B	6				Default Var Obj 23	1=32 bit frz counter event; 2=16 bit frz counter event; 5=32 bit frz counter event with time; 6=16 bit frz counter event with time.	1=1:32bit FrzCnt evt; 2=2:16bit FrzCnt evt; 5=5:32bit FrzCnt evt&time; 6=6:16bit FrzCnt evt&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa30.setVal	ENG	Enum	SP	B	5				Default Var Obj 30	1=32 bit AI; 2=16 bit AI; 3=32 bit AI without flag; 4=16 bit AI without flag; 5=AI float; 6=AI double.	1=1:32bit AI; 2=2:16bit AI; 3=3:32bit AI noflag; 4=4:16bit AI noflag; 5=5:AI float; 6=6:AI double	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa32.setVal	ENG	Enum	SP	B	7				Default Var Obj 32	1=32 bit AI event; 2=16 bit AI event; 3=32 bit AI event with time; 4=16 bit AI event with time; 5=float AI event; 6=double AI event; 7=float AI event with time; 8=double AI event with time.	1=1:32bit AI evt; 2=2:16bit AI evt; 3=3:32bit AI evt&time; 4=4:16bit AI evt&time; 5=5: float AI evt; 6=6:double AI evt; 7=7:float AI evt&time; 8=8:double AI evt&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa40.setVal	ENG	Enum	SP	B	2				Default Var Obj 40	1=32 bit AO; 2=16 bit AO; 3=AO float; 4=AO double.	1=1:32bit AO; 2=2:16bit AO; 3=3:AO float; 4=4:AO double	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.DftVa42.setVal	ENG	Enum	SP	B	4				Default Var Obj 42	1=32 bit AO event; 2=16 bit AO event; 3=32 bit AO event with time; 4=16 bit AO event with time; 5=float AO event; 6=double AO event; 7=float AO event with time; 8=double AO event with time.	1=1:32bit AO evt; 2=2:16bit AO evt; 3=3:32bit AO evt&time; 4=4:16bit AO evt&time; 5=5:float AO evt; 6=6:double AO evt; 7=7:float AO evt&time; 8=8:double AO evt&time	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.VldAddr.setVal	ENG	Enum	SP	A	1				Validate master addr	Validate master address on receive	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.SelfAddr.setVal	ENG	Enum	SP	A	2				Self address	Support self address query function	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.ChLivTms.setVal	ING	INT32	SP	A	0				Link keep-alive	Link keep-alive interval for DNP	0...65535 s	Configuration\Communication\DNP3.0\DNP3.0 4	

DNP 3.0			CFG	LD0.DNPLPRT4.TCPAuth.setVal	ENG	Enum	SP	A	2				TCP write authority	0=no client controls allowed; 1=Controls allowed by registered clients; 2=Controls allowed by all clients	0=No clients; 1=Reg. clients; 2=All clients	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.TCPPort.setVal	ING	INT32	SP	A,C	20003				TCP port	TCP Port used on ethernet communication	20000...65535	Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			CFG	LD0.DNPLPRT4.CommPort.eIp	ENG	VisString255 (20)	EX	ED1	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.0 4	
DNP 3.0			VER	LD0.DNPLPRT4.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

DNP 3.0: DNP3.0 Protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DNP 3.0			OUT	LD0.DNPLPRT5.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Status		Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CTR	LD0.DNPLPRT5.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Received frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Transmitted frames	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.LnkErrCnt.stVal	INS	INT32	ST	B					Link errors	Link layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.PhyErrCnt.stVal	INS	INT32	ST	B					Physical errors	Physical layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.TranErrCnt.stVal	INS	INT32	ST	B					Transport errors	Transport layer errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.MapErrCnt.stVal	INS	INT32	ST	B					Mapping errors	Mapping errors	-1...2147483646	Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			MON	LD0.DNPLPRT5.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Operation Off / On	1=on; 5=off	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.CommPort.setVal	ENG	Enum	SP	B,C	3				Port	Communication interface selection	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1; 4=Ethernet TCP+UDP 1	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.UnitAddr.setVal	ING	INT32	SP	B	1				Unit address	DNP unit address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.MstrAddr.setVal	ING	INT32	SP	B	3				Master address	DNP master and UR address	1...65519	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.MapSel.setVal	ING	INT32	SP	A,C	1				Mapping select	Mapping select	1...2	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.SynIntvTmm.setVal	ING	INT32	SP	A	30				Need time interval	Period to set IIN need time bit	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 5	

DNP 3.0			CFG	LD0.DNPLPRT5.TmFrm.setVal	ENG	Enum	SP	A	1				Time format	UTC or local. Coordinate with master.	0=UTC; 1=Local	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.CROBSelTms.setVal	ING	INT32	SP	A	10				CROB select timeout	Control Relay Output Block select timeout	1...65535 s	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.LnkCnf.setVal	ENG	Enum	SP	A	0				Data link confirm	Data link confirm mode	0=Never; 1=Only Multiframe; 2=Always	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.LnkCnfTmms.setVal	ING	INT32	SP	A	3000				Data link confirm TO	Data link confirm timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.LnkReLim.setVal	ING	INT32	SP	A	3				Data link retries	Data link retries count	0...65535	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.RxTxDlTmms.setVal	ING	INT32	SP	A	0				Data link Rx to Tx delay	Turnaround transmission delay	0...255 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.CharDl.setVal	ING	INT32	SP	A	4				Data link inter char delay	Inter character delay for incoming messages	0...20 char	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.AplLayCnf.setVal	ENG	Enum	SP	A	1				App layer confirm	Application layer confirm mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.AplCnfTmms.setVal	ING	INT32	SP	A	5000				App confirm TO	Application layer confirm and UR timeout	100...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.AplLayFrg.setVal	ING	INT32	SP	A	2048				App layer fragment	Application layer fragment size	256...2048 bytes	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URMod.setVal	ENG	Enum	SP	B	1				UR mode	Unsolicited responses mode	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URRe.setVal	ING	INT32	SP	A	3				UR retries	Unsolicited retries before switching to UR offline mode	0...65535	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URReTmms.setVal	ING	INT32	SP	A	5000				UR TO	Unsolicited response timeout	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.UROfTm.setVal	ING	INT32	SP	A	15				UR offline interval	Unsolicited offline interval	0...65535 min	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla1.setVal	ING	INT32	SP	A	2				UR Class 1 Min events	Min number of class 1 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla1Tmms.setVal	ING	INT32	SP	A	50				UR Class 1 TO	Max holding time for class 1 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla2.setVal	ING	INT32	SP	A	2				UR Class 2 Min events	Min number of class 2 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla2Tmms.setVal	ING	INT32	SP	A	50				UR Class 2 TO	Max holding time for class 2 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla3.setVal	ING	INT32	SP	A	2				UR Class 3 Min events	Min number of class 3 events to generate UR	0...999	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URCla3Tmms.setVal	ING	INT32	SP	A	50				UR Class 3 TO	Max holding time for class 3 events to generate UR	0...65535 ms	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.URLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master UR	Legacy DNP master unsolicited mode support. When enabled relay does not send initial unsolicited message.	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.SBOLgcyMod.setVal	ENG	Enum	SP	A	1				Legacy master SBO	Legacy DNP Master SBO sequence number relax enable	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.0 5	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa1.setVal	ENG	Enum	SP	B	1				Default Var Obj 01	1=BI; 2=BI with status.	1=1:BI; 2=2:BI&status	Configuration\Communication\DNP3.0\DNP3.0 5	

DNP 3.0			CFG	LD0.DNPLPRT5.DftVa2.setVal	ENG	Enum	SP	B	2				Default Var Obj 02	1=BI event; 2=BI event with time.	1=1:BI event; 2=2:BI event&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa3.setVal	ENG	Enum	SP	B	1				Default Var Obj 03	1=DBI; 2=DBI with status.	1=1:DBI; 2=2:DBI&status	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa4.setVal	ENG	Enum	SP	B	2				Default Var Obj 04	1=DBI event; 2=DBI event with time.	1=1:DBI event; 2=2:DBI event&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa20.setVal	ENG	Enum	SP	B	2				Default Var Obj 20	1=32 bit counter; 2=16 bit counter; 5=32 bit counter without flag; 6=16 bit counter without flag.	1=1:32bit Cnt; 2=2:16bit Cnt; 5=5:32bit Cnt noflag; 6=6:16bit Cnt noflag	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa21.setVal	ENG	Enum	SP	B	6				Default Var Obj 21	1=32 bit frz counter; 2=16 bit frz counter; 5=32 bit frz counter with time; 6=16 bit frz counter with time; 9=32 bit frz counter without flag;10=16 bit frz counter without flag.	1=1:32bit FrzCnt; 2=2:16bit FrzCnt; 5=5:32bit FrzCnt&time; 6=6:16bit FrzCnt&time; 9=9:32bit FrzCnt noflag; 10=10:16bit FrzCnt noflag	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa22.setVal	ENG	Enum	SP	B	6				Default Var Obj 22	1=32 bit counter event; 2=16 bit counter event; 5=32 bit counter event with time; 6=16 bit counter event with time.	1=1:32bit Cnt evt; 2=2:16bit Cnt evt; 5=5:32bit Cnt evt&time; 6=6:16bit Cnt evt&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa23.setVal	ENG	Enum	SP	B	6				Default Var Obj 23	1=32 bit frz counter event; 2=16 bit frz counter event; 5=32 bit frz counter event with time; 6=16 bit frz counter event with time.	1=1:32bit FrzCnt evt; 2=2:16bit FrzCnt evt; 5=5:32bit FrzCnt evt&time; 6=6:16bit FrzCnt evt&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa30.setVal	ENG	Enum	SP	B	5				Default Var Obj 30	1=32 bit AI; 2=16 bit AI; 3=32 bit AI without flag; 4=16 bit AI without flag; 5=AI float; 6=AI double.	1=1:32bit AI; 2=2:16bit AI; 3=3:32bit AI noflag; 4=4:16bit AI noflag; 5=5:AI float; 6=6:AI double	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa32.setVal	ENG	Enum	SP	B	7				Default Var Obj 32	1=32 bit AI event; 2=16 bit AI event; 3=32 bit AI event with time; 4=16 bit AI event with time; 5=float AI event; 6=double AI event; 7=float AI event with time; 8=double AI event with time.	1=1:32bit AI evt; 2=2:16bit AI evt; 3=3:32bit AI evt&time; 4=4:16bit AI evt&time; 5=5: float AI evt; 6=6:double AI evt; 7=7:float AI evt&time; 8=8:double AI evt&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa40.setVal	ENG	Enum	SP	B	2				Default Var Obj 40	1=32 bit AO; 2=16 bit AO; 3=AO float; 4=AO double.	1=1:32bit AO; 2=2:16bit AO; 3=3:AO float; 4=4:AO double	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.DftVa42.setVal	ENG	Enum	SP	B	4				Default Var Obj 42	1=32 bit AO event; 2=16 bit AO event; 3=32 bit AO event with time; 4=16 bit AO event with time; 5=float AO event; 6=double AO event; 7=float AO event with time; 8=double AO event with time.	1=1:32bit AO evt; 2=2:16bit AO evt; 3=3:32bit AO evt&time; 4=4:16bit AO evt&time; 5=5:float AO evt; 6=6:double AO evt; 7=7:float AO evt&time; 8=8:double AO evt&time	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.VldAddr.setVal	ENG	Enum	SP	A	1				Validate master addr	Validate master address on receive	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.SelfAddr.setVal	ENG	Enum	SP	A	2				Self address	Support self address query function	1=Disable; 2=Enable	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.ChLivTms.setVal	ING	INT32	SP	A	0				Link keep-alive	Link keep-alive interval for DNP	0...65535 s	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.TCPAuth.setVal	ENG	Enum	SP	A	2				TCP write authority	0=no client controls allowed; 1=Controls allowed by registered clients; 2=Controls allowed by all clients	0=No clients; 1=Reg. clients; 2=All clients	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.TCPPort.setVal	ING	INT32	SP	A,C	20004				TCP port	TCP Port used on ethernet communication	20000...65535	Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.CliIPAddr.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.05	
DNP 3.0			CFG	LD0.DNPLPRT5.CommPort.eIp	ENG	VisString255 (20)	EX	ED1	0.0.0.0			DN	ClientIP	IP address of client		Configuration\Communication\DNP3.0\DNP3.05	

DNP 3.0			VER	LD0.DNPLPRT5.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Name plate)			

Modbus: Modbus protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Modbus			OUT	LD0.MBSLPRT1.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Communication status (True = OK, False = has been disconnected for more than 30sec)		Monitoring\Communication\Modbus\MBS01	
Modbus			CTR	LD0.MBSLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Number of received frames	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Number of checksum errors	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Number of transmitted frames	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.TxExcpCnt1.stVal	INS	INT32	ST	B					Transmitted exc A	Number of transmitted exception responses 01 and 02	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.TxExcpCnt2.stVal	INS	INT32	ST	B					Transmitted exc B	Number of transmitted exception responses 03	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.ConnRejSck.stVal	INS	INT32	ST	B					CnReject no sockets	Number of rejected connections due to no sockets available	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.ConnRejRg.stVal	INS	INT32	ST	B					CnReject unregistered	Connection rejected due to unregistered client	-1...2147483646	Monitoring\Communication\Modbus\MBS01	
Modbus			MON	LD0.MBSLPRT1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Enable or disable this protocol instance	1=on; 5=off	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.BufBkOff.setVal	ING	INT32	SP	A	200				Event backoff	Defines how many events have to be read after event buffer overflow to allow new events to be buffered. Applicable in "Keep oldest" mode only.	1...500	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.TCPPort.setVal	ING	INT32	SP	A	502				TCP port	Defines the listening port for the Modbus TCP server. Default = 502.	1...65535	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.MapSel.setVal	ING	INT32	SP	A	1				Mapping selection	Chooses which mapping scheme will be used for this protocol instance.	1...2	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...254	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start delay in character times for serial connection	0...20	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End delay in character times for serial connections	0...20	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd1.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd1	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd2.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd2	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd3.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd3	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd4.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	

Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd4	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd5.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd5	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd6.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd6	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd7.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd7	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CtlPwd8.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.ctrlStructPassWd8	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CommPort.setVal	ENG	Enum	SP	B	3				Port	Port selection for this protocol instance. Select between serial and Ethernet based communication.	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.LnkMod.setVal	ENG	Enum	SP	B	1				Link mode	Selects between ASCII and RTU mode. For TCP, this should always be RTU.	1=RTU; 2=ASCII	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.MBWrAuth.setVal	ENG	Enum	SP	B	2				Write authority	Selects the control authority scheme	0=Read only; 1=Disable 0x write; 2=Full access	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.EvtIdSel.setVal	ENG	Enum	SP	B	0				Event ID selection	Selects whether the events are reported using the MB address or the UID number.	0=Address; 1=UID	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.EvtBufMod.setVal	ENG	Enum	SP	B	0				Event buffering	Selects whether the oldest or newest events are kept in the case of event buffer overflow.	0=Keep oldest; 1=Keep newest	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CRCOrdr.setVal	ENG	Enum	SP	B	0				CRC order	Selects between normal or swapped byte order for checksum for serial connection. Default: Hi-Lo.	0=Hi-Lo; 1=Lo-Hi	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Selects between UTC and local time for events and timestamps.	0=UTC; 1=Local	Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.NamPlt.clientIP	LPL	VisString255 (20)	EX	ED1	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS01	
Modbus			CFG	LD0.MBSLPRT1.SerPty.setVal	ENG	Enum	SP	B	2				Parity	Parity for the serial connection.	0=none; 1=odd; 2=even	Configuration\Communication\Modbus\MBS01	
Modbus			VER	LD0.MBSLPRT1.NamPlt.swRev	LPL	VisString255 (20)	DC		F					(Name plate)			

Modbus: Modbus protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Modbus			OUT	LD0.MBSLPRT2.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Communication status (True = OK, False = has been disconnected for more than 30sec)		Monitoring\Communication\Modbus\MBS02	

Modbus			CTR	LD0.MBSLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Number of received frames	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Number of checksum errors	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Number of transmitted frames	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.TxExcpCnt1.stVal	INS	INT32	ST	B					Transmitted exc A	Number of transmitted exception responses 01 and 02	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.TxExcpCnt2.stVal	INS	INT32	ST	B					Transmitted exc B	Number of transmitted exception responses 03	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.ConnRejSck.stVal	INS	INT32	ST	B					CnReject no sockets	Number of rejected connections due to no sockets available	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.ConnRejRg.stVal	INS	INT32	ST	B					CnReject unregistered	Connection rejected due to unregistered client	-1...2147483646	Monitoring\Communication\Modbus\MBS02	
Modbus			MON	LD0.MBSLPRT2.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Enable or disable this protocol instance	1=on; 5=off	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.BufBkOff.setVal	ING	INT32	SP	A	200				Event backoff	Defines how many events have to be read after event buffer overflow to allow new events to be buffered. Applicable in "Keep oldest" mode only.	1...500	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.TCPPort.setVal	ING	INT32	SP	A	502				TCP port	Defines the listening port for the Modbus TCP server. Default = 502.	1...65535	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.MapSel.setVal	ING	INT32	SP	A	1				Mapping selection	Chooses which mapping scheme will be used for this protocol instance.	1...2	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...254	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start delay in character times for serial connection	0...20	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End delay in character times for serial connections	0...20	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd1.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd1	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd2.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd2	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd3.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd3	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd4.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd4	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd5.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd5	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd6.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd6	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	

Modbus			CFG	LD0.MBSLPRT2.CtlPwd7.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd7	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CtlPwd8.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.ctrlStructPassWd8	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CommPort.setVal	ENG	Enum	SP	B	3				Port	Port selection for this protocol instance. Select between serial and Ethernet based communication.	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.LnkMod.setVal	ENG	Enum	SP	B	1				Link mode	Selects between ASCII and RTU mode. For TCP, this should always be RTU.	1=RTU; 2=ASCII	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.MBWrAuth.setVal	ENG	Enum	SP	B	2				Write authority	Selects the control authority scheme	0=Read only; 1=Disable 0x write; 2=Full access	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.EvtIdSel.setVal	ENG	Enum	SP	B	0				Event ID selection	Selects whether the events are reported using the MB address or the UID number.	0=Address; 1=UID	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.EvtBufMod.setVal	ENG	Enum	SP	B	0				Event buffering	Selects whether the oldest or newest events are kept in the case of event buffer overflow.	0=Keep oldest; 1=Keep newest	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CRCOrdr.setVal	ENG	Enum	SP	B	0				CRC order	Selects between normal or swapped byte order for checksum for serial connection. Default: Hi-Lo.	0=Hi-Lo; 1=Lo-Hi	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Selects between UTC and local time for events and timestamps.	0=UTC; 1=Local	Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.NamPlt.clientIP	LPL	VisString255 (20)	EX	ED1	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS02	
Modbus			CFG	LD0.MBSLPRT2.SerPty.setVal	ENG	Enum	SP	B	2				Parity	Parity for the serial connection.	0=none; 1=odd; 2=even	Configuration\Communication\Modbus\MBS02	
Modbus			VER	LD0.MBSLPRT2.NamPlt.swRev	LPL	VisString255 (20)	DC		F					(Name plate)			

Modbus: Modbus protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Modbus			OUT	LD0.MBSLPRT3.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Communication status (True = OK, False = has been disconnected for more than 30sec)		Monitoring\Communication\Modbus\MBS03	
Modbus			CTR	LD0.MBSLPRT3.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Number of received frames	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Number of checksum errors	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Number of transmitted frames	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.TxExcpCnt1.stVal	INS	INT32	ST	B					Transmitted exc A	Number of transmitted exception responses 01 and 02	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.TxExcpCnt2.stVal	INS	INT32	ST	B					Transmitted exc B	Number of transmitted exception responses 03	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.ConnRejSck.stVal	INS	INT32	ST	B					CnReject no sockets	Number of rejected connections due to no sockets available	-1...2147483646	Monitoring\Communication\Modbus\MBS03	
Modbus			MON	LD0.MBSLPRT3.ConnRejRg.stVal	INS	INT32	ST	B					CnReject unregistered	Connection rejected due to unregistered client	-1...2147483646	Monitoring\Communication\Modbus\MBS03	

Modbus			MON	LD0.MBSLPRT3.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Enable or disable this protocol instance	1=on; 5=off	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.BufBkOff.setVal	ING	INT32	SP	A	200				Event backoff	Defines how many events have to be read after event buffer overflow to allow new events to be buffered. Applicable in "Keep oldest" mode only.	1...500	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.TCPPort.setVal	ING	INT32	SP	A	502				TCP port	Defines the listening port for the Modbus TCP server. Default = 502.	1...65535	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.MapSel.setVal	ING	INT32	SP	A	1				Mapping selection	Chooses which mapping scheme will be used for this protocol instance.	1...2	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...254	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start delay in character times for serial connection	0...20	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End delay in character times for serial connections	0...20	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd1.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd1	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd2.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd2	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd3.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd3	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd4.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd4	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd5.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd5	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd6.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd6	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd7.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd7	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CtlPwd8.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.ctrlStructPassWd8	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CommPort.setVal	ENG	Enum	SP	B	3				Port	Port selection for this protocol instance. Select between serial and Ethernet based communication.	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1	Configuration\Communication\Modbus\MBS03	

Modbus			CFG	LD0.MBSLPRT3.LnkMod.setVal	ENG	Enum	SP	B	1				Link mode	Selects between ASCII and RTU mode. For TCP, this should always be RTU.	1=RTU; 2=ASCII	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.MBWrAuth.setVal	ENG	Enum	SP	B	2				Write authority	Selects the control authority scheme	0=Read only; 1=Disable 0x write; 2=Full access	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.EvtIdSel.setVal	ENG	Enum	SP	B	0				Event ID selection	Selects whether the events are reported using the MB address or the UID number.	0=Address; 1=UID	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.EvtBufMod.setVal	ENG	Enum	SP	B	0				Event buffering	Selects whether the oldest or newest events are kept in the case of event buffer overflow.	0=Keep oldest; 1=Keep newest	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CRCOrdr.setVal	ENG	Enum	SP	B	0				CRC order	Selects between normal or swapped byte order for checksum for serial connection. Default: Hi-Lo.	0=Hi-Lo; 1=Lo-Hi	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Selects between UTC and local time for events and timestamps.	0=UTC; 1=Local	Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.NamPlt.clientIP	LPL	VisString255 (20)	EX	ED1	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS03	
Modbus			CFG	LD0.MBSLPRT3.SerPty.setVal	ENG	Enum	SP	B	2				Parity	Parity for the serial connection.	0=none; 1=odd; 2=even	Configuration\Communication\Modbus\MBS03	
Modbus			VER	LD0.MBSLPRT3.NamPlt.swRev	LPL	VisString255 (20)	DC		F					(Name plate)			

Modbus: Modbus protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Modbus			OUT	LD0.MBSLPRT4.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Communication status (True = OK, False = has been disconnected for more than 30sec)		Monitoring\Communication\Modbus\MBS04	
Modbus			CTR	LD0.MBSLPRT4.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Number of received frames	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Number of checksum errors	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Number of transmitted frames	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.TxExcpCnt1.stVal	INS	INT32	ST	B					Transmitted exc A	Number of transmitted exception responses 01 and 02	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.TxExcpCnt2.stVal	INS	INT32	ST	B					Transmitted exc B	Number of transmitted exception responses 03	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.ConnRejSck.stVal	INS	INT32	ST	B					CnReject no sockets	Number of rejected connections due to no sockets available	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.ConnRejRg.stVal	INS	INT32	ST	B					CnReject unregistered	Connection rejected due to unregistered client	-1...2147483646	Monitoring\Communication\Modbus\MBS04	
Modbus			MON	LD0.MBSLPRT4.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Enable or disable this protocol instance	1=on; 5=off	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.BufBkOff.setVal	ING	INT32	SP	A	200				Event backoff	Defines how many events have to be read after event buffer overflow to allow new events to be buffered. Applicable in "Keep oldest" mode only.	1...500	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.TCPPort.setVal	ING	INT32	SP	A	502				TCP port	Defines the listening port for the Modbus TCP server. Default = 502.	1...65535	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.MapSel.setVal	ING	INT32	SP	A	1				Mapping selection	Chooses which mapping scheme will be used for this protocol instance.	1...2	Configuration\Communication\Modbus\MBS04	

Modbus			CFG	LD0.MBSLPRT4.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...254	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start delay in character times for serial connection	0...20	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End delay in character times for serial connections	0...20	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd1.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd1	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd2.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd2	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd3.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd3	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd4.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd4	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd5.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd5	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd6.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd6	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd7.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd7	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CtlPwd8.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.ctrlStructPassWd8	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CommPort.setVal	ENG	Enum	SP	B	3				Port	Port selection for this protocol instance. Select between serial and Ethernet based communication.	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.LnkMod.setVal	ENG	Enum	SP	B	1				Link mode	Selects between ASCII and RTU mode. For TCP, this should always be RTU.	1=RTU; 2=ASCII	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.MBWrAuth.setVal	ENG	Enum	SP	B	2				Write authority	Selects the control authority scheme	0=Read only; 1=Disable 0x write; 2=Full access	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.EvtIdSel.setVal	ENG	Enum	SP	B	0				Event ID selection	Selects whether the events are reported using the MB address or the UID number.	0=Address; 1=UID	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.EvtBufMod.setVal	ENG	Enum	SP	B	0				Event buffering	Selects whether the oldest or newest events are kept in the case of event buffer overflow.	0=Keep oldest; 1=Keep newest	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CRCOrdr.setVal	ENG	Enum	SP	B	0				CRC order	Selects between normal or swapped byte order for checksum for serial connection. Default: Hi-Lo.	0=Hi-Lo; 1=Lo-Hi	Configuration\Communication\Modbus\MBS04	

Modbus			CFG	LD0.MBSLPRT4.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Selects between UTC and local time for events and timestamps.	0=UTC; 1=Local	Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.NamPlt.clientIP	LPL	VisString255 (20)	EX	ED1	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS04	
Modbus			CFG	LD0.MBSLPRT4.SerPty.setVal	ENG	Enum	SP	B	2				Parity	Parity for the serial connection.	0=none; 1=odd; 2=even	Configuration\Communication\Modbus\MBS04	
Modbus			VER	LD0.MBSLPRT4.NamPlt.swRev	LPL	VisString255 (20)	DC		F					(Name plate)			

Modbus: Modbus protocol

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Modbus			OUT	LD0.MBSLPRT5.ChLiv.stVal	SPS	BOOLEAN	ST	B					Status	Communication status (True = OK, False = has been disconnected for more than 30sec)		Monitoring\Communication\Modbus\MBS05	
Modbus			CTR	LD0.MBSLPRT5.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.FrRxCnt.stVal	INS	INT32	ST	B					Received frames	Number of received frames	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.ChkErrCnt.stVal	INS	INT32	ST	B					Checksum errors	Number of checksum errors	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.FrTxCnt.stVal	INS	INT32	ST	B					Transmitted frames	Number of transmitted frames	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.TxExcpCnt1.stVal	INS	INT32	ST	B					Transmitted exc A	Number of transmitted exception responses 01 and 02	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.TxExcpCnt2.stVal	INS	INT32	ST	B					Transmitted exc B	Number of transmitted exception responses 03	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.ConnRejSck.stVal	INS	INT32	ST	B					CnReject no sockets	Number of rejected connections due to no sockets available	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.ConnRejRg.stVal	INS	INT32	ST	B					CnReject unregistered	Connection rejected due to unregistered client	-1...2147483646	Monitoring\Communication\Modbus\MBS05	
Modbus			MON	LD0.MBSLPRT5.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0				Reset counters	Reset counters		Monitoring\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.Mod.Oper.ctlVal	ENC	Enum	CO	B,C,I	5				Operation	Enable or disable this protocol instance	1=on; 5=off	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.BufBkOff.setVal	ING	INT32	SP	A	200				Event backoff	Defines how many events have to be read after event buffer overflow to allow new events to be buffered. Applicable in "Keep oldest" mode only.	1...500	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.TCPPort.setVal	ING	INT32	SP	A	502				TCP port	Defines the listening port for the Modbus TCP server. Default = 502.	1...65535	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.MapSel.setVal	ING	INT32	SP	A	1				Mapping selection	Chooses which mapping scheme will be used for this protocol instance.	1...2	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.UnitAddr.setVal	ING	INT32	SP	B	1				Address	Unit address	1...254	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.StrFrDl.setVal	ING	INT32	SP	A	4				Start delay	Start delay in character times for serial connection	0...20	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.EndFrDl.setVal	ING	INT32	SP	A	4				End delay	End delay in character times for serial connections	0...20	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd1.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd1	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 1	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd2.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	

Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd2	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 2	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd3.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd3	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 3	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd4.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd4	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 4	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd5.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd5	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 5	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd6.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd6	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 6	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd7.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd7	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 7	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CtlPwd8.setVal	VSG	VisString255 (20)	SP	ED2,B	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.ctrlStructPassWd8	LPL	VisString255 (20)	EX	ED1	****			MB	ControlStructPWd 8	Password for control operations using Control Struct mechanism, which is available on 4x memory area.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CommPort.setVal	ENG	Enum	SP	B	3				Port	Port selection for this protocol instance. Select between serial and Ethernet based communication.	1=COM 1; 2=COM 2; 3=Ethernet - TCP 1	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.LnkMod.setVal	ENG	Enum	SP	B	1				Link mode	Selects between ASCII and RTU mode. For TCP, this should always be RTU.	1=RTU; 2=ASCII	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.MBWrAuth.setVal	ENG	Enum	SP	B	2				Write authority	Selects the control authority scheme	0=Read only; 1=Disable 0x write; 2=Full access	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.EvtIdSel.setVal	ENG	Enum	SP	B	0				Event ID selection	Selects whether the events are reported using the MB address or the UID number.	0=Address; 1=UID	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.EvtBufMod.setVal	ENG	Enum	SP	B	0				Event buffering	Selects whether the oldest or newest events are kept in the case of event buffer overflow.	0=Keep oldest; 1=Keep newest	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CRCOrdr.setVal	ENG	Enum	SP	B	0				CRC order	Selects between normal or swapped byte order for checksum for serial connection. Default: Hi-Lo.	0=Hi-Lo; 1=Lo-Hi	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.TmFrm.setVal	ENG	Enum	SP	B	1				Time format	Selects between UTC and local time for events and timestamps.	0=UTC; 1=Local	Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.CliIP.setVal	VSG	VisString255 (20)	SP	ED2,B	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.NamPlt.clientIP	LPL	VisString255 (20)	EX	ED1	0.0.0.0			MB	Client IP	Sets the IP address of the client. If set to zero, connection from any client is accepted.		Configuration\Communication\Modbus\MBS05	
Modbus			CFG	LD0.MBSLPRT5.SerPty.setVal	ENG	Enum	SP	B	2				Parity	Parity for the serial connection.	0=none; 1=odd; 2=even	Configuration\Communication\Modbus\MBS05	
Modbus			VER	LD0.MBSLPRT5.NamPlt.swRev	LPL	VisString255 (20)	DC		F					(Name plate)			

DARREC1: Autorecloser

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InInhRec.stVal	SPS	BOOLEAN	ST	B	0			MB,DN	INHIBIT_RECL	Interrupts and inhibits reclosing sequence		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InBlkThm.stVal	SPS	BOOLEAN	ST	B	0			MB,DN	BLK_THERM	Blocks and holds the reclose shot from the thermal overload		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InRecOn.stVal	SPS	BOOLEAN	ST	B	0				RECL_ON	Level sensitive signal for allowing (high) / not allowing (low) reclosing		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InBlkRclTm.stVal	SPS	BOOLEAN	ST	B	0				BLK_RCLM_T	Blocks and resets reclaim time		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InCBPos.stVal	SPS	BOOLEAN	ST	B	0				CB_POS	Circuit breaker position input		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InCBRdy.stVal	SPS	BOOLEAN	ST	B	1				CB_READY	Circuit breaker status signal		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InSynChk.stVal	SPS	BOOLEAN	ST	B	0				SYNC	Synchronizing check fulfilled		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIncrPntr.stVal	SPS	BOOLEAN	ST	B	0				INC_SHOTP	A zone sequence coordination signal		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni1.stVal	SPS	BOOLEAN	ST	B	0				INIT_1	AR initialization / blocking signal 1		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni2.stVal	SPS	BOOLEAN	ST	B	0				INIT_2	AR initialization / blocking signal 2		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni3.stVal	SPS	BOOLEAN	ST	B	0				INIT_3	AR initialization / blocking signal 3		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni4.stVal	SPS	BOOLEAN	ST	B	0				INIT_4	AR initialization / blocking signal 4		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni5.stVal	SPS	BOOLEAN	ST	B	0				INIT_5	AR initialization / blocking signal 5		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InIni6.stVal	SPS	BOOLEAN	ST	B	0				INIT_6	AR initialization / blocking signal 6		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InDlIni2.stVal	SPS	BOOLEAN	ST	B	0				DEL_INIT_2	Delayed AR initialization / blocking signal 2		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InDlIni3.stVal	SPS	BOOLEAN	ST	B	0				DEL_INIT_3	Delayed AR initialization / blocking signal 3		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InDlIni4.stVal	SPS	BOOLEAN	ST	B	0				DEL_INIT_4	Delayed AR initialization / blocking signal 4		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	INP	LD0.DARREC1.InBlkRecTm.stVal	SPS	BOOLEAN	ST	B	0				BLK_RECL_T	Blocks and resets reclose time		Monitoring\I/O status\Control\DARREC1\Inputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.OpCls.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	CLOSE_CB	Close (reclose) command for circuit breaker	(A,B,C)	Monitoring\I/O status\Control\DARREC1\Outputs	

DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.OpOpn.general	ACT	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	OPEN_CB	Open command for circuit breaker	(A,B,C)	Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.LO.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	LOCKED	Signal indicating that AR is locked out		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.RdyRec.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	READY	Indicates that the AR is ready for a new sequence, i.e. the CB_READY input equals TRUE		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.ActRec.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ACTIVE	Reclosing sequence is in progress		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.UnsRec.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	UNSUC_RECL	Indicates an unsuccessful reclosing sequence		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.PrgRec.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	INPRO	Reclosing shot in progress, activated during dead time		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.WtMstr.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	CMD_WAIT	Wait for master command		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.ProCrd.stVal	SPS	BOOLEAN	ST	B				MB,DN	PROT_CRD	A signal for coordination between the AR and the protection		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	OUT	LD0.DARREC1.AutoRecOn.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	AR_ON	Autoreclosing allowed		Monitoring\I/O status\Control\DARREC1\Outputs	
DARREC1	O->I(1)	79(1)	CTR	LD0.DARREC1.BlkRec.Oper.ctlVal	SPC	BOOLEAN	CO							(Block reclose)			
DARREC1	O->I(1)	79(1)	CTR	LD0.DARREC1.RecRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	DARREC1 reset	DARREC1 reset to initial condition	0=Cancel; 1=Clear	Clear\Clear	
DARREC1	O->I(1)	79(1)	CTR	LD0.DARREC1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN	DARREC1 counters	DARREC1 all counters reset	0=Cancel; 1=Clear	Clear\Clear	
DARREC1	O->I(1)	79(1)	CTR	LD0.DARREC1.DsaCnt.Oper.ctlVal	SPC	BOOLEAN	CO							(Signal for counter disabling)			
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.Beh.stVal	ENS	Enum	ST	B					DARREC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.OpCntRs.stVal	INC	INT32	ST	B				MB,DN	COUNTER	Resetable operation counter, all shots	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.AutoRecSt.stVal	ENS	Enum	ST	B		StatIed	P,H	MB,DN	STATUS	AR status signal for IEC61850	-1=Not defined; 1=Ready; 2=InProgress; 3=Successful; 4=WaitingForTrip; 5=TripFromProtection; 6=FaultDisappeared; 7=WaitToComplete; 8=CBclosed; 9=CycleUnsuccessful; 10=Unsuccessful; 11=Aborted	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RecCnt1.stVal	INS	INT32	ST	B				MB,DN	CNT_SHOT1	Resetable operation counter, shot 1	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RecCnt2.stVal	INS	INT32	ST	B				MB,DN	CNT_SHOT2	Resetable operation counter, shot 2	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	

DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RecCnt3.stVal	INS	INT32	ST	B				MB,DN	CNT_SHOT3	Resetable operation counter, shot 3	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RecCnt4.stVal	INS	INT32	ST	B				MB,DN	CNT_SHOT4	Resetable operation counter, shot 4	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RecCnt5.stVal	INS	INT32	ST	B				MB,DN	CNT_SHOT5	Resetable operation counter, shot 5	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.SucRec.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	SUC_RECL	Indicates a successful reclosing sequence		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.UnsCBCls.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	UNSUC_CB	Indicates an unsuccessful CB closing		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgRec1.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	INPRO_1	Reclosing shot in progress, shot 1		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgRec2.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	INPRO_2	Reclosing shot in progress, shot 2		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgRec3.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	INPRO_3	Reclosing shot in progress, shot 3		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgRec4.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	INPRO_4	Reclosing shot in progress, shot 4		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgRec5.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	INPRO_5	Reclosing shot in progress, shot 5		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgDsr.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	DISCR_INPRO	Signal indicating that discrimination time is in progress		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.PrgCutOut.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	CUTOUT_INPRO	Signal indicating that cut-out time is in progress		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.FrqOpCnt.stVal	INS	INT32	ST	B				MB,DN	FRQ_OPR_CNT	Frequent operation counter	0...2147483647	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.FrqOpAlm.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	FRQ_OPR_AL	Frequent operation counter alarm		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.DsaCnt.stVal	SPC	BOOLEAN	ST	B					DISA_COUNT	Signal for counter disabling		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.RclTmStr.stVal	SPS	BOOLEAN	ST			StatIed	P,H	MB,DN,I3		(Reclaim time started)			
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.CBManCls.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	MAN_CB_CL	Indicates CB manual closing during reclosing sequence		Monitoring\I/O status\Control\DARREC1\Monitored data	

DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.ShotPntr.stVal	INS	INT32	ST	B		StatIed	P,H	MB,DN	SHOT_PTR	Shot pointer value	1...7	Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	MON	LD0.DARREC1.SOF.stVal	SPS	BOOLEAN	ST	B					SOTF	Switch-onto-fault		Monitoring\I/O status\Control\DARREC1\Monitored data	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off/On	1=on; 5=off	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms1.setVal	ING	INT32	SP	B	5000				First reclose time	Dead time for CBB1	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms2.setVal	ING	INT32	SP	B	5000				Second reclose time	Dead time for CBB2	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms3.setVal	ING	INT32	SP	B	5000				Third reclose time	Dead time for CBB3	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms4.setVal	ING	INT32	SP	B	5000				Fourth reclose time	Dead time for CBB4	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms5.setVal	ING	INT32	SP	B	5000				Fifth reclose time	Dead time for CBB5	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms6.setVal	ING	INT32	SP	B	5000				Sixth reclose time	Dead time for CBB6	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Rec1Tmms7.setVal	ING	INT32	SP	B	5000				Seventh reclose time	Dead time for CBB7	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.RclTmms.setVal	ING	INT32	SP	B	10000				Reclaim time	Reclaim time	100...1800000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.AutoIni.setVal	ING	INT32	SP	B,I	0				Auto init	Defines INIT lines that are activated at auto initiation	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.RecOp.setVal	ENG	Enum	SP	B	1				Reclosing operation	Reclosing operation (Off, External Ctl / On)	1=Off; 2=External Ctl; 3=On	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ManClsMod.setVal	SPG	BOOLEAN	SP	A	0				Manual close mode	Manual close mode		Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.WtClsTmms.setVal	ING	INT32	SP	A	250				Wait close time	Allowed CB closing time after reclose command	50...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.MaxWtTmms.setVal	ING	INT32	SP	A	10000				Max wait time	Maximum wait time for BLK_RECL_T release	100...1800000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.MaxBlkTmms.setVal	ING	INT32	SP	A	10000				Max Thm block time	Maximum wait time for thermal blocking signal deactivation	100...1800000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.CutOutTmms.setVal	ING	INT32	SP	A	10000				Cut-out time	Cutout time for protection coordination	0...1800000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.DsrTmms1.setVal	ING	INT32	SP	A	0				Dsr time shot 1	Discrimination time for first reclosing	0...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.DsrTmms2.setVal	ING	INT32	SP	A	0				Dsr time shot 2	Discrimination time for second reclosing	0...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.DsrTmms3.setVal	ING	INT32	SP	A	0				Dsr time shot 3	Discrimination time for third reclosing	0...10000 ms	Settings\Settings\Control\DARREC1	

DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.DsrTmms4.setVal	ING	INT32	SP	A	0				Dsr time shot 4	Discrimination time for fourth reclosing	0...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.TermPrio.setVal	ENG	Enum	SP	B	1				Terminal priority	Terminal priority	1=None; 2=Low (follower); 3=High (master)	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.SynSet.setVal	ING	INT32	SP	B	0				Synchronisation set	Selection for synchronizing requirement for reclosing	0...127	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.AutoWtTmms.setVal	ING	INT32	SP	A	2000				Auto wait time	Wait time for reclosing condition fullfilling	0...60000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.AutoLORs.setVal	SPG	BOOLEAN	SP	A	1				Auto lockout reset	Automatic lockout reset		Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ProCrdLim.setVal	ING	INT32	SP	A	1				Protection crd limit	Protection coordination shot limit	1...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ProCrdMod.setVal	ENG	Enum	SP	A	4				Protection crd mode	Protection coordination mode	1=No condition; 2=AR inoperative; 3=CB close manual; 4=AR inop, CB man; 5=Always	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.AutoIniCnd.setVal	ENG	Enum	SP	B	2				Auto initiation cnd	Auto initiation condition	1=Not allowed; 2=When sync fails; 3=CB doesn't close; 4=Both	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.TrLin.setVal	ING	INT32	SP	B	0				Tripping line	Tripping line, defines INIT inputs which cause OPEN_CB activation	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.CtlLin.setVal	ING	INT32	SP	A	63				Control line	Control line, defines INIT inputs which are protection signals	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.EnaShotJmp.setVal	SPG	BOOLEAN	SP	A	1				Enable shot jump	Enable shot jumping		Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.CBClsPosSt.setVal	SPG	BOOLEAN	SP	A	0				CB closed Pos status	Circuit breaker closed position status		Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Ena4DlSOF.setVal	SPG	BOOLEAN	SP	B,I	0				Fourth delay in SOTF	Sets 4th delay into use for all DEL_INIT signals during SOTF		Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB1.setVal	ING	INT32	SP	B	0				Init signals CBB1	Initiation lines for CBB1	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB2.setVal	ING	INT32	SP	B	0				Init signals CBB2	Initiation lines for CBB2	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB3.setVal	ING	INT32	SP	B	0				Init signals CBB3	Initiation lines for CBB3	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB4.setVal	ING	INT32	SP	B	0				Init signals CBB4	Initiation lines for CBB4	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB5.setVal	ING	INT32	SP	B	0				Init signals CBB5	Initiation lines for CBB5	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB6.setVal	ING	INT32	SP	B	0				Init signals CBB6	Initiation lines for CBB6	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.IniSigCBB7.setVal	ING	INT32	SP	B	0				Init signals CBB7	Initiation lines for CBB7	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB1.setVal	ING	INT32	SP	A	0				Blk signals CBB1	Blocking lines for CBB1	0...63	Settings\Settings\Control\DARREC1	

DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB2.setVal	ING	INT32	SP	A	0				Blk signals CBB2	Blocking lines for CBB2	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB3.setVal	ING	INT32	SP	A	0				Blk signals CBB3	Blocking lines for CBB3	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB4.setVal	ING	INT32	SP	A	0				Blk signals CBB4	Blocking lines for CBB4	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB5.setVal	ING	INT32	SP	A	0				Blk signals CBB5	Blocking lines for CBB5	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB6.setVal	ING	INT32	SP	A	0				Blk signals CBB6	Blocking lines for CBB6	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.BlkSigCBB7.setVal	ING	INT32	SP	A	0				Blk signals CBB7	Blocking lines for CBB7	0...63	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum1.setVal	ING	INT32	SP	B	0				Shot number CBB1	Shot number for CBB1	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum2.setVal	ING	INT32	SP	B	0				Shot number CBB2	Shot number for CBB2	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum3.setVal	ING	INT32	SP	B	0				Shot number CBB3	Shot number for CBB3	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum4.setVal	ING	INT32	SP	B	0				Shot number CBB4	Shot number for CBB4	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum5.setVal	ING	INT32	SP	B	0				Shot number CBB5	Shot number for CBB5	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum6.setVal	ING	INT32	SP	B	0				Shot number CBB6	Shot number for CBB6	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.ShotNum7.setVal	ING	INT32	SP	B	0				Shot number CBB7	Shot number for CBB7	0...5	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str2Tmms1.setVal	ING	INT32	SP	A	0				Str 2 delay shot 1	Delay time for start2, 1st reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str2Tmms2.setVal	ING	INT32	SP	A	0				Str 2 delay shot 2	Delay time for start2 2nd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str2Tmms3.setVal	ING	INT32	SP	A	0				Str 2 delay shot 3	Delay time for start2 3rd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str2Tmms4.setVal	ING	INT32	SP	A	0				Str 2 delay shot 4	Delay time for start2, 4th reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str3Tmms1.setVal	ING	INT32	SP	A	0				Str 3 delay shot 1	Delay time for start3, 1st reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str3Tmms2.setVal	ING	INT32	SP	A	0				Str 3 delay shot 2	Delay time for start3 2nd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str3Tmms3.setVal	ING	INT32	SP	A	0				Str 3 delay shot 3	Delay time for start3 3rd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str3Tmms4.setVal	ING	INT32	SP	A	0				Str 3 delay shot 4	Delay time for start3, 4th reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str4Tmms1.setVal	ING	INT32	SP	A	0				Str 4 delay shot 1	Delay time for start4, 1st reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str4Tmms2.setVal	ING	INT32	SP	A	0				Str 4 delay shot 2	Delay time for start4 2nd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	

DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str4Tmms3.setVal	ING	INT32	SP	A	0				Str 4 delay shot 3	Delay time for start4 3rd reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.Str4Tmms4.setVal	ING	INT32	SP	A	0				Str 4 delay shot 4	Delay time for start4, 4th reclose	0...300000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.FrqCntLim.setVal	ING	INT32	SP	B	0				Frq Op counter limit	Frequent operation counter lockout limit	0...250	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.FrqCntTmm.setVal	ING	INT32	SP	B	1				Frq Op counter time	Frequent operation counter time	1...250 min	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.FrqRcvTmm.setVal	ING	INT32	SP	B	1				Frq Op recovery time	Frequent operation counter recovery time	1...250 min	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.PlsTmms.setVal	ING	INT32	SP	B	200				Close pulse time	CB close pulse time	10...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	SET	LD0.DARREC1.MaxTrTmms.setVal	ING	INT32	SP	A	10000				Max trip time	Maximum wait time for deactivation of protection signals	100...10000 ms	Settings\Settings\Control\DARREC1	
DARREC1	O->I(1)	79(1)	TES	LD0.DARREC1.TestCtl.Oper.ctlVal	ENC	Enum	CO	B	0				DARREC1	Test control for outputs	0=Reset; 5=Activate OPEN_CB; 6=Deactive OPEN_CB; 7=Activate CLOSE_CB; 8=Deactive CLOSE_CB; 9=Activate CMD_WAIT; 10=Deactive CMD_WAIT; 11=Activate PROT_CRD; 12=Deactive PROT_CRD; 13=Activate INPRO; 14=Deactive INPRO; 15=Activate LOCKED; 16=Deactive LOCKED; 17=Activate UNSUC_RECL; 18=Deactive UNSUC_RECL; 19=Activate AR_ON; 20=Deactive AR_ON; 21=Activate READY; 22=Deactive READY; 45=Activate ACTIVE; 46=Deactive ACTIVE	Tests\Function tests\Control	
DARREC1	O->I(1)	79(1)	VER	LD0.DARREC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	F					(Name plate)			

ARCSARC1: Arc protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ARCSARC1	ARC(1)	50L/50NL(1)	INP	LD0.ARCSARC11.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Other protection\ARCSARC1\Inputs	
ARCSARC1	ARC(1)	50L/50NL(1)	INP	LD0.ARCSARC11.InRemFA.stVal	SPS	BOOLEAN	ST	B	0				REM_FLT_ARC	Remote Fault arc detected		Monitoring\I/O status\Other protection\ARCSARC1\Inputs	
ARCSARC1	ARC(1)	50L/50NL(1)	INP	LD0.ARCPTRC11.InOpMod.stVal	SPS	BOOLEAN	ST	B	0				OPR_MODE	Operation mode input		Monitoring\I/O status\Other protection\ARCSARC1\Inputs	
ARCSARC1	ARC(1)	50L/50NL(1)	OUT	LD0.ARCSARC11.FADet.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ARC_FLT_DET	Fault arc detected=light signal output		Monitoring\I/O status\Other protection\ARCSARC1\Outputs	
ARCSARC1	ARC(1)	50L/50NL(1)	OUT	LD0.ARCPTRC11.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\ARCSARC1\Outputs	
ARCSARC1	ARC(1)	50L/50NL(1)	CTR	LD0.ARCSARC11.FACntRs.Oper.ctlVal	INC	INT32	CO							(Fault arc counter)			
ARCSARC1	ARC(1)	50L/50NL(1)	MON	LD0.ARCSARC11.Beh.stVal	ENS	Enum	ST	B					ARCSARC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ARCSARC1	ARC(1)	50L/50NL(1)	SET	LD0.ARCSARC11.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\ARCSARC1	

ARCSARC1	ARC(1)	50L/50NL(1)	SET	LD0.ARCPIOC11.StrVal.setMag.f	ASG	FLOAT32	SG	B	2.50				Phase start value	Operating phase current	0.50...40.00 xIn	Settings\Settings\Other protection\ARCSARC1	IL1TCTR1
ARCSARC1	ARC(1)	50L/50NL(1)	SET	LD0.ARCPIOC12.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.20				Ground start value	Operating residual current	0.05...8.00 xIn	Settings\Settings\Other protection\ARCSARC1	RESTCTR1
ARCSARC1	ARC(1)	50L/50NL(1)	SET	LD0.ARCPTRC11.OpModArc.setVal	ENG	Enum	SG	B	1				Operation mode	Operation mode	1=Light+current; 2=Light only; 3=BI controlled	Settings\Settings\Other protection\ARCSARC1	
ARCSARC1	ARC(1)	50L/50NL(1)	TES	LD0.ARCSARC11.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ARCSARC1	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 33=Activate ARC_FLT_DET; 34=Deactive ARC_FLT_DET	Tests\Function tests\Other protection	
ARCSARC1	ARC(1)	50L/50NL(1)	VER	LD0.ARCSARC11.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

ARCSARC2: Arc protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ARCSARC2	ARC(2)	50L/50NL(2)	INP	LD0.ARCSARC21.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Other protection\ARCSARC2\Inputs	
ARCSARC2	ARC(2)	50L/50NL(2)	INP	LD0.ARCSARC21.InRemFA.stVal	SPS	BOOLEAN	ST	B	0				REM_FLT_ARC	Remote Fault arc detected		Monitoring\I/O status\Other protection\ARCSARC2\Inputs	
ARCSARC2	ARC(2)	50L/50NL(2)	INP	LD0.ARCPTRC21.InOpMod.stVal	SPS	BOOLEAN	ST	B	0				OPR_MODE	Operation mode input		Monitoring\I/O status\Other protection\ARCSARC2\Inputs	
ARCSARC2	ARC(2)	50L/50NL(2)	OUT	LD0.ARCSARC21.FADet.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ARC_FLT_DET	Fault arc detected=light signal output		Monitoring\I/O status\Other protection\ARCSARC2\Outputs	
ARCSARC2	ARC(2)	50L/50NL(2)	OUT	LD0.ARCPTRC21.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\ARCSARC2\Outputs	
ARCSARC2	ARC(2)	50L/50NL(2)	CTR	LD0.ARCSARC21.FACntRs.Oper.ctlVal	INC	INT32	CO							(Fault arc counter)			
ARCSARC2	ARC(2)	50L/50NL(2)	MON	LD0.ARCSARC21.Beh.stVal	ENS	Enum	ST	B					ARCSARC2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ARCSARC2	ARC(2)	50L/50NL(2)	SET	LD0.ARCSARC21.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\ARCSARC2	
ARCSARC2	ARC(2)	50L/50NL(2)	SET	LD0.ARCPIOC21.StrVal.setMag.f	ASG	FLOAT32	SG	B	2.50				Phase start value	Operating phase current	0.50...40.00 xIn	Settings\Settings\Other protection\ARCSARC2	IL1TCTR1
ARCSARC2	ARC(2)	50L/50NL(2)	SET	LD0.ARCPIOC22.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.20				Ground start value	Operating residual current	0.05...8.00 xIn	Settings\Settings\Other protection\ARCSARC2	RESTCTR1
ARCSARC2	ARC(2)	50L/50NL(2)	SET	LD0.ARCPTRC21.OpModArc.setVal	ENG	Enum	SG	B	1				Operation mode	Operation mode	1=Light+current; 2=Light only; 3=BI controlled	Settings\Settings\Other protection\ARCSARC2	
ARCSARC2	ARC(2)	50L/50NL(2)	TES	LD0.ARCSARC21.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ARCSARC2	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 33=Activate ARC_FLT_DET; 34=Deactive ARC_FLT_DET	Tests\Function tests\Other protection	
ARCSARC2	ARC(2)	50L/50NL(2)	VER	LD0.ARCSARC21.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

ARCSARC3: Arc protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ARCSARC3	ARC(3)	50L/50NL(3)	INP	LD0.ARCSARC31.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Other protection\ARCSARC3\Inputs	
ARCSARC3	ARC(3)	50L/50NL(3)	INP	LD0.ARCSARC31.InRemFA.stVal	SPS	BOOLEAN	ST	B	0				REM_FLT_ARC	Remote Fault arc detected		Monitoring\I/O status\Other protection\ARCSARC3\Inputs	
ARCSARC3	ARC(3)	50L/50NL(3)	INP	LD0.ARCPTRC31.InOpMod.stVal	SPS	BOOLEAN	ST	B	0				OPR_MODE	Operation mode input		Monitoring\I/O status\Other protection\ARCSARC3\Inputs	
ARCSARC3	ARC(3)	50L/50NL(3)	OUT	LD0.ARCSARC31.FADet.stVal	SPS	BOOLEAN	ST	B		StatIed	P,H	MB,DN,I3	ARC_FLT_DET	Fault arc detected=light signal output		Monitoring\I/O status\Other protection\ARCSARC3\Outputs	
ARCSARC3	ARC(3)	50L/50NL(3)	OUT	LD0.ARCPTRC31.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Other protection\ARCSARC3\Outputs	
ARCSARC3	ARC(3)	50L/50NL(3)	CTR	LD0.ARCSARC31.FACntRs.Oper.ctlVal	INC	INT32	CO							(Fault arc counter)			
ARCSARC3	ARC(3)	50L/50NL(3)	MON	LD0.ARCSARC31.Beh.stVal	ENS	Enum	ST	B					ARCSARC3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
ARCSARC3	ARC(3)	50L/50NL(3)	SET	LD0.ARCSARC31.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\ARCSARC3	
ARCSARC3	ARC(3)	50L/50NL(3)	SET	LD0.ARCPIOC31.StrVal.setMag.f	ASG	FLOAT32	SG	B	2.50				Phase start value	Operating phase current	0.50...40.00 xIn	Settings\Settings\Other protection\ARCSARC3	IL1TCTR1
ARCSARC3	ARC(3)	50L/50NL(3)	SET	LD0.ARCPIOC32.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.20				Ground start value	Operating residual current	0.05...8.00 xIn	Settings\Settings\Other protection\ARCSARC3	RESTCTR1
ARCSARC3	ARC(3)	50L/50NL(3)	SET	LD0.ARCPTRC31.OpModArc.setVal	ENG	Enum	SG	B	1				Operation mode	Operation mode	1=Light+current; 2=Light only; 3=BI controlled	Settings\Settings\Other protection\ARCSARC3	
ARCSARC3	ARC(3)	50L/50NL(3)	TES	LD0.ARCSARC31.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				ARCSARC3	Test control for outputs	0=Reset; 9=Activate OPERATE; 10=Deactive OPERATE; 33=Activate ARC_FLT_DET; 34=Deactive ARC_FLT_DET	Tests\Function tests\Other protection	
ARCSARC3	ARC(3)	50L/50NL(3)	VER	LD0.ARCSARC31.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

CMHAI1: Current total demand distortion

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CMHAI1	PQM3I(1)	PQM3I(1)	INP	LD0.CMHAI1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Power quality\CMHAI1\Inputs	
CMHAI1	PQM3I(1)	PQM3I(1)	OUT	LD0.CMHAI1.Alm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Alarm signal for TDD		Monitoring\I/O status\Power quality\CMHAI1\Outputs	
CMHAI1	PQM3I(1)	PQM3I(1)	CTR	LD0.CMHAI1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(CMHAI1 max.demands)			
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.TddA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTDD_A	3 second mean value of TDD for phase A	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.TddA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTDD_B	3 second mean value of TDD for phase B	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.TddA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTDD_C	3 second mean value of TDD for phase C	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	

CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.DmdTddA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_TDD_A	Demand value for TDD for phase A	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.DmdTddA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_TDD_B	Demand value for TDD for phase B	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.DmdTddA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_TDD_C	Demand value for TDD for phase C	0.00...500.00 %	Monitoring\I/O status\Power quality\CMHAI1\Monitored data	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand TDD IL1	Maximum demand TDD for phase A	0.00...500.00 %	Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsA.t	WYE	Timestamp	MX	B					Time max dmd TDD IL1	Time of maximum demand TDD phase A		Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand TDD IL2	Maximum demand TDD for phase B	0.00...500.00 %	Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsB.t	WYE	Timestamp	MX	B					Time max dmd TDD IL2	Time of maximum demand TDD phase B		Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand TDD IL3	Maximum demand TDD for phase C	0.00...500.00 %	Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	MON	LD0.CMHAI1.MaxDmdTddA.phsC.t	WYE	Timestamp	MX	B					Time max dmd TDD IL3	Time of maximum demand TDD phase C		Monitoring\Recorded data\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	SET	LD0.CMHAI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	SET	LD0.CMHAI1.NomA.setMag.f	ASG	FLOAT32	SP	A	1.0				Initial Dmd current	Initial demand current	0.10...1.0 xIn	Settings\Settings\Power quality\CMHAI1	IL1TCTR1
CMHAI1	PQM3I(1)	PQM3I(1)	SET	LD0.CMHAI1.TddAVal.setMag.f	ASG	FLOAT32	SP	B	50.0				TDD alarm limit	TDD alarm limit	1.0...100.0 %	Settings\Settings\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	SET	LD0.CMHAI1.DmdItrv.setVal	ENG	Enum	SP	B	2				Demand interval	Time interval for demand calculation	0=1 minute; 1=5 minutes; 2=10 minutes; 3=15 minutes; 4=30 minutes; 5=60 minutes; 6=180 minutes	Settings\Settings\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	SET	LD0.CMHAI1.DmdWinMod.setVal	ENG	Enum	SP	B	1				Demand window	Demand calculation window type	1=Sliding; 2=Non-sliding	Settings\Settings\Power quality\CMHAI1	
CMHAI1	PQM3I(1)	PQM3I(1)	VER	LD0.CMHAI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

VMHAI1: Voltage total harmonic distortion

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
VMHAI1	PQM3U(1)	PQM3V(1)	INP	LD0.VMHAI1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for all binary outputs		Monitoring\I/O status\Power quality\VMHAI1\Inputs	
VMHAI1	PQM3U(1)	PQM3V(1)	OUT	LD0.VMHAI1.Alm.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	ALARM	Alarm signal for THD		Monitoring\I/O status\Power quality\VMHAI1\Outputs	
VMHAI1	PQM3U(1)	PQM3V(1)	CTR	LD0.VMHAI1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(VMHAI1 max.demands)			
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.ThdPhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTHD_A	3 second mean value of THD for phase A	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.ThdPhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTHD_B	3 second mean value of THD for phase B	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	

VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.ThdPhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	3SMHTHD_C	3 second mean value of THD for phase C	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.DmdThdPhV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_THD_A	Demand value for THD for phase A	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.DmdThdPhV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_THD_B	Demand value for THD for phase B	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.DmdThdPhV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	DMD_THD_C	Demand value for THD for phase C	0.00...500.00 %	Monitoring\I/O status\Power quality\VMHAI1\Monitored data	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsA.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand THD UL1	Maximum demand THD for phase A	0.00...500.00 %	Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsA.t	WYE	Timestamp	MX	B					Time max dmd THD UL1	Time of maximum demand THD phase A		Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsB.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand THD UL2	Maximum demand THD for phase B	0.00...500.00 %	Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsB.t	WYE	Timestamp	MX	B					Time max dmd THD UL2	Time of maximum demand THD phase B		Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsC.cVal.mag.f	WYE	FLOAT32	MX	B				MB,DN	Max demand THD UL3	Maximum demand THD for phase C	0.00...500.00 %	Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	MON	LD0.VMHAI1.MaxDmdThdV.phsC.t	WYE	Timestamp	MX	B					Time max dmd THD UL3	Time of maximum demand THD phase C		Monitoring\Recorded data\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	SET	LD0.VMHAI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Power quality\VMHAI1	IL1TCTR1
VMHAI1	PQM3U(1)	PQM3V(1)	SET	LD0.VMHAI1.ThdVVal.setMag.f	ASG	FLOAT32	SP	B	50.0				THD alarm limit	THD alarm limit	1.0...100.0 %	Settings\Settings\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	SET	LD0.VMHAI1.DmdItrv.setVal	ENG	Enum	SP	B	2				Demand interval	Time interval for demand calculation	0=1 minute; 1=5 minutes; 2=10 minutes; 3=15 minutes; 4=30 minutes; 5=60 minutes; 6=180 minutes	Settings\Settings\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	SET	LD0.VMHAI1.DmdWinMod.setVal	ENG	Enum	SP	B	1				Demand window	Demand calculation window type	1=Sliding; 2=Non-sliding	Settings\Settings\Power quality\VMHAI1	
VMHAI1	PQM3U(1)	PQM3V(1)	VER	LD0.VMHAI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

PHQVVR1: Short duration voltage variations

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
PHQVVR1	PQMU(1)	PQMV(1)	INP	LD0.PH1QVVR1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Power quality\PHQVVR1\Inputs	
PHQVVR1	PQMU(1)	PQMV(1)	OUT	LD0.PH1QVVR1.DipStr.stVal	SPS	BOOLEAN	ST	B					DIPST	Voltage dip active		Monitoring\I/O status\Power quality\PHQVVR1\Outputs	
PHQVVR1	PQMU(1)	PQMV(1)	OUT	LD0.PH1QVVR1.SwlStr.stVal	SPS	BOOLEAN	ST	B					SWELLST	Voltage swell active		Monitoring\I/O status\Power quality\PHQVVR1\Outputs	
PHQVVR1	PQMU(1)	PQMV(1)	OUT	LD0.PH1QVVR1.IntrStr.stVal	SPS	BOOLEAN	ST	B					INTST	Voltage interruption active		Monitoring\I/O status\Power quality\PHQVVR1\Outputs	
PHQVVR1	PQMU(1)	PQMV(1)	OUT	LD0.PH1QVVR1.VaOp.stVal	SPS	BOOLEAN	ST	B					OPERATE	Voltage variation detected		Monitoring\I/O status\Power quality\PHQVVR1\Outputs	

PHQVVR1	PQMU(1)	PQMV(1)	OUT	LD0.PH1QVVR1.VaStrGen.stVal	SPS	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	START	Voltage variation present		Monitoring\I/O status\Power quality\PHQVVR1\Outputs	
PHQVVR1	PQMU(1)	PQMV(1)	CTR	LD0.PH1QVVR1.OpCntRs.Oper.ctlVal	INC	INT32	CO							(Resettable operation counter)			
PHQVVR1	PQMU(1)	PQMV(1)	CTR	LD0.PH1QVVR1.CntRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB,DN		(Counters reset)			
PHQVVR1	PQMU(1)	PQMV(1)	CTR	LD0.PH1QVVR1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO					MB		(Recorded data reset)			
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.Beh.stVal	ENS	Enum	ST	B					PHQVVR1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.VarStr.stVal	SPS	BOOLEAN	ST	B					ST_A	Start Phase A (Voltage Variation Event in progress)		Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.SwlInstCnt.stVal	INS	INT32	ST	B				MB,DN	INSTSWELLCNT	Instantaneous swell operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.SwlMomCnt.stVal	INS	INT32	ST	B				MB,DN	MOMSWELLCNT	Momentary swell operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.SwlTmpCnt.stVal	INS	INT32	ST	B				MB,DN	TEMPSWELLCNT	Temporary swell operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.SwlMaxCnt.stVal	INS	INT32	ST	B				MB,DN	MAXDURSWELLCNT	Maximum duration swell operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.DipInstCnt.stVal	INS	INT32	ST	B				MB,DN	INSTDIPCNT	Instantaneous dip operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.DipTmpCnt.stVal	INS	INT32	ST	B				MB,DN	TEMPDIPCNT	Temporary dip operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.DipMomCnt.stVal	INS	INT32	ST	B				MB,DN	MOMDIPCNT	Momentary dip operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.DipMaxCnt.stVal	INS	INT32	ST	B				MB,DN	MAXDURDIPCNT	Maximum duration dip operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.IntrMomCnt.stVal	INS	INT32	ST	B				MB,DN	MOMINTCNT	Momentary interruption operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.IntrTmpCnt.stVal	INS	INT32	ST	B				MB,DN	TEMPINTCNT	Temporary interruption operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.IntrSstCnt.stVal	INS	INT32	ST	B				MB,DN	SUSTINTCNT	Sustained interruption operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH1QVVR1.IntrMaxCnt.stVal	INS	INT32	ST	B				MB,DN	MAXDURINTCNT	Maximum duration interruption operation counter	0...2147483647	Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH2QVVR1.VarStr.stVal	SPS	BOOLEAN	ST	B					ST_B	Start Phase B (Voltage Variation Event in progress)		Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.PH3QVVR1.VarStr.stVal	SPS	BOOLEAN	ST	B					ST_C	Start Phase C (Voltage Variation Event in progress)		Monitoring\I/O status\Power quality\PHQVVR1\Monitored data	

PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTyp.stVal	ENS	Enum	ST	B					Variation type	Variation type	0=No variation; 1=Swell; 2=Dip; 3=Swell + dip; 4=Interruption; 5=Swell + Int; 6=Dip + Int; 7=Swell+dip+Int	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTyp.t	ENS	Timestamp	ST	B					Time	Time		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsA.mag.f	MV	FLOAT32	MX	B					Variation Ph A	Variation magnitude Phase A	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsA.t	MV	Timestamp	MX	B					Var Ph A rec time	Variation magnitude Phase A time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsB.mag.f	MV	FLOAT32	MX	B					Variation Ph B	Variation magnitude Phase B	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsB.t	MV	Timestamp	MX	B					Var Ph B rec time	Variation magnitude Phase B time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsC.mag.f	MV	FLOAT32	MX	B					Variation Ph C	Variation magnitude Phase C	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaPhsC.t	MV	Timestamp	MX	B					Var Ph C rec time	Variation magnitude Phase C time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsA.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph A	Variation duration Phase A	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsA.t	MV	Timestamp	MX	B					Var Dur Ph A time	Variation Ph A start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsB.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph B	Variation duration Phase B	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsB.t	MV	Timestamp	MX	B					Var Dur Ph B time	Variation Ph B start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsC.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph C	Variation duration Phase C	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.VVaTmPhsC.t	MV	Timestamp	MX	B					Var Dur Ph C time	Variation Ph C start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.APreVaPhsA.mag.f	MV	FLOAT32	MX	B					Var current Ph A	Current magnitude Phase A preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.APreVaPhsB.mag.f	MV	FLOAT32	MX	B					Var current Ph B	Current magnitude Phase B preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV1RQRC1.APreVaPhsC.mag.f	MV	FLOAT32	MX	B					Var current Ph C	Current magnitude Phase C preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 1	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTyp.stVal	ENS	Enum	ST	B					Variation type	Variation type	0=No variation; 1=Swell; 2=Dip; 3=Swell + dip; 4=Interruption; 5=Swell + Int; 6=Dip + Int; 7=Swell+dip+Int	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTyp.t	ENS	Timestamp	ST	B					Time	Time		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsA.mag.f	MV	FLOAT32	MX	B					Variation Ph A	Variation magnitude Phase A	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	

PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsA.t	MV	Timestamp	MX	B					Var Ph A rec time	Variation magnitude Phase A time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsB.mag.f	MV	FLOAT32	MX	B					Variation Ph B	Variation magnitude Phase B	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsB.t	MV	Timestamp	MX	B					Var Ph B rec time	Variation magnitude Phase B time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsC.mag.f	MV	FLOAT32	MX	B					Variation Ph C	Variation magnitude Phase C	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaPhsC.t	MV	Timestamp	MX	B					Var Ph C rec time	Variation magnitude Phase C time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsA.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph A	Variation duration Phase A	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsA.t	MV	Timestamp	MX	B					Var Dur Ph A time	Variation Ph A start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsB.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph B	Variation duration Phase B	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsB.t	MV	Timestamp	MX	B					Var Dur Ph B time	Variation Ph B start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsC.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph C	Variation duration Phase C	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.VVaTmPhsC.t	MV	Timestamp	MX	B					Var Dur Ph C time	Variation Ph C start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.APreVaPhsA.mag.f	MV	FLOAT32	MX	B					Var current Ph A	Current magnitude Phase A preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.APreVaPhsB.mag.f	MV	FLOAT32	MX	B					Var current Ph B	Current magnitude Phase B preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV2RQRC1.APreVaPhsC.mag.f	MV	FLOAT32	MX	B					Var current Ph C	Current magnitude Phase C preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 2	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTyp.stVal	ENS	Enum	ST	B					Variation type	Variation type	0=No variation; 1=Swell; 2=Dip; 3=Swell + dip; 4=Interruption; 5=Swell + Int; 6=Dip + Int; 7=Swell+dip+Int	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTyp.t	ENS	Timestamp	ST	B					Time	Time		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsA.mag.f	MV	FLOAT32	MX	B					Variation Ph A	Variation magnitude Phase A	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsA.t	MV	Timestamp	MX	B					Var Ph A rec time	Variation magnitude Phase A time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsB.mag.f	MV	FLOAT32	MX	B					Variation Ph B	Variation magnitude Phase B	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsB.t	MV	Timestamp	MX	B					Var Ph B rec time	Variation magnitude Phase B time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	

PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsC.mag.f	MV	FLOAT32	MX	B					Variation Ph C	Variation magnitude Phase C	0.00...5.00 xUn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaPhsC.t	MV	Timestamp	MX	B					Var Ph C rec time	Variation magnitude Phase C time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsA.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph A	Variation duration Phase A	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsA.t	MV	Timestamp	MX	B					Var Dur Ph A time	Variation Ph A start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsB.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph B	Variation duration Phase B	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsB.t	MV	Timestamp	MX	B					Var Dur Ph B time	Variation Ph B start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsC.mag.f	MV	FLOAT32	MX	B					Variation Dur Ph C	Variation duration Phase C	0.000...3600.000 s	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.VVaTmPhsC.t	MV	Timestamp	MX	B					Var Dur Ph C time	Variation Ph C start time stamp		Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.APreVaPhsA.mag.f	MV	FLOAT32	MX	B					Var current Ph A	Current magnitude Phase A preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.APreVaPhsB.mag.f	MV	FLOAT32	MX	B					Var current Ph B	Current magnitude Phase B preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	MON	LD0.QVV3RQRC1.APreVaPhsC.mag.f	MV	FLOAT32	MX	B					Var current Ph C	Current magnitude Phase C preceding variation	0.00...60.00 xIn	Monitoring\Recorded data\Power quality\PHQVVR1\Variation 3	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.DipStrVal.setMag.f	ASG	FLOAT32	SG	B	80.0				Voltage dip set 1	Dip limit 1 in % of reference voltage	10.0...100.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.DipStr2Val.setMag.f	ASG	FLOAT32	SG	B	80.0				Voltage dip set 2	Dip limit 2 in % of reference voltage	10.0...100.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.DipStr3Val.setMag.f	ASG	FLOAT32	SG	B	80.0				Voltage dip set 3	Dip limit 3 in % of reference voltage	10.0...100.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.SwlStrVal.setMag.f	ASG	FLOAT32	SG	B	120.0				Voltage swell set 1	Swell limit 1 in % of reference voltage	100.0...140.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.SwlStr2Val.setMag.f	ASG	FLOAT32	SG	B	120.0				Voltage swell set 2	Swell limit 2 in % of reference voltage	100.0...140.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.SwlStr3Val.setMag.f	ASG	FLOAT32	SG	B	120.0				Voltage swell set 3	Swell limit 3 in % of reference voltage	100.0...140.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.IntrStrVal.setMag.f	ASG	FLOAT32	SG	B	10.0				Voltage Int set	Interruption limit in % of reference voltage	0.0...100.0 %	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.RefV.setMag.f	ASG	FLOAT32	SG	B	57.7				Reference voltage	Reference supply voltage in %	10.0...200.0 %Un	Settings\Settings\Power quality\PHQVVR1	UL1TVTR1

PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Dip1Cyc.setMag.f	ASG	FLOAT32	SG	B	3.0				VVa dip time 1	Voltage variation dip duration 1	0.5...54.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Dip2Cyc.setMag.f	ASG	FLOAT32	SG	B	30.0				VVa dip time 2	Voltage variation dip duration 2	10.0...180.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Dip3Tmms.setVal	ING	INT32	SG	B	3000				VVa dip time 3	Voltage variation dip duration 3	2000...60000 ms	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Swl1Cyc.setMag.f	ASG	FLOAT32	SG	B	0.5				VVa swell time 1	Voltage variation swell duration 1	0.5...54.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Swl2Cyc.setMag.f	ASG	FLOAT32	SG	B	10.0				VVa swell time 2	Voltage variation swell duration 2	10.0...80.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Swl3Tmms.setVal	ING	INT32	SG	B	2000				VVa swell time 3	Voltage variation swell duration 3	2000...60000 ms	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Intr1Cyc.setMag.f	ASG	FLOAT32	SG	B	3.0				VVa Int time 1	Voltage variation Int duration 1	0.5...30.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Intr2Cyc.setMag.f	ASG	FLOAT32	SG	B	30.0				VVa Int time 2	Voltage variation Int duration 2	10.0...180.0 cycles	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.Intr3Tmms.setVal	ING	INT32	SG	B	3000				VVa Int time 3	Voltage variation interruption duration 3	2000...60000 ms	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.MaxDurTmms.setVal	ING	INT32	SG	B	60000				VVa Dur Max	Maximum voltage variation duration	100...3600000 ms	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.PhSpvn.setVal	ENG	Enum	SP	A	7				Phase supervision	Monitored voltage phase	1=Ph A; 2=Ph B; 3=Ph A + B; 4=Ph C; 5=Ph A + C; 6=Ph B + C; 7=Ph A + B + C	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.OpModPh.setVal	ENG	Enum	SP	A	2				Phase mode	Three/Single phase mode	1=Three Phase; 2=Single Phase	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	SET	LD0.PH1QVVR1.VVaEna.setVal	ENG	Enum	SP	B	7				Variation enable	Enable variation type	1=Swell; 2=Dip; 3=Swell + dip; 4=Interruption; 5=Swell + Int; 6=Dip + Int; 7=Swell+dip+Int	Settings\Settings\Power quality\PHQVVR1	
PHQVVR1	PQMU(1)	PQMV(1)	TES	LD0.PH1QVVR1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				PHQVVR1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE; -59=Activate SWELLST; -60=Deactive SWELLST; -61=Activate DIPST; -62=Deactive DIPST; -63=Activate INTST; -64=Deactive INTST	Tests\Function tests\Power quality	
PHQVVR1	PQMU(1)	PQMV(1)	VER	LD0.PH1QVVR1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

VSQVUB1: Voltage unbalance measurement

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
VSQVUB1	PQUUB(1)	PQVUB(1)	INP	LD0.VSQVUB1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block all outputs except measured values		Monitoring\I/O status\Power quality\VSQVUB1\Inputs	
VSQVUB1	PQUUB(1)	PQVUB(1)	OUT	LD0.VSQVUB1.VarStr.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	MN_UNB_AL	Alarm active when 3 sec voltage unbalance exceeds the limit		Monitoring\I/O status\Power quality\VSQVUB1\Outputs	
VSQVUB1	PQUUB(1)	PQVUB(1)	OUT	LD0.VSQVUB1.HiPctVUnb.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	PCT_UNB_AL	Alarm active when percentile unbalance exceeds the limit		Monitoring\I/O status\Power quality\VSQVUB1\Outputs	

VSQVUB1	PQUUB(1)	PQVUB(1)	OUT	LD0.VSQVUB1.ObsPerAct.stVal	SPS	BOOLEAN	ST	B					OBS_PR_ACT	Observation period is active		Monitoring\I/O status\Power quality\VSQVUB1\Outputs	
VSQVUB1	PQUUB(1)	PQVUB(1)	CTR	LD0.VSQVUB1.TrgObsPer.Oper.ctlVal	SPC	BOOLEAN	CO							(Trigger for observation period)			
VSQVUB1	PQUUB(1)	PQVUB(1)	CTR	LD0.VSQVUB1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO							(Recorded data reset)			
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.Beh.stVal	ENS	Enum	ST	B					VSQVUB1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.MaxVVa.mag.f	MV	FLOAT32	MX	B					MAX_UNB_VAL	Maximum voltage unbalance measured in the observation period	0.00...150.00 %	Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.MaxVVa.t	MV	Timestamp	MX	B					MAX_UNB_TIME	Time stamp at which maximum voltage unbalance measured in the observation period		Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.PctUnbVal.mag.f	MV	FLOAT32	MX	B					PCT_UNB_VAL	Limit below which percentile unbalance of the values lie	0.00...150.00 %	Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.VUnb3sMn.mag.f	MV	FLOAT32	MX	B					3S_MN_UNB	Non sliding 3 second mean value of voltage unbalance	0.00...150.00 %	Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.VUnb10mMn.mag.f	MV	FLOAT32	MX	B					10MIN_MN_UNB	Sliding 10 minutes mean value of voltage unbalance	0.00...150.00 %	Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.ObsPerStr.t	SPS	Timestamp	ST	B					PR_STR_TIME	Time stamp of starting of the previous observation period		Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.VSQVUB1.ObsPerEnd.t	SPS	Timestamp	ST	B					PR_END_TIME	Time stamp of end of previous observation period		Monitoring\I/O status\Power quality\VSQVUB1\Monitored data	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU1RQRC1.MaxVVa.mag.f	MV	FLOAT32	MX	B					Max unbalance Volt	Maximum 3 seconds unbalance voltage	0.00...150.00 %	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 1	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU1RQRC1.MaxVVa.t	MV	Timestamp	MX	B					Time Max Unb Volt	Time stamp of maximum voltage unbalance		Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 1	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU1RQRC1.VVaTm.mag.f	MV	FLOAT32	MX	B					Alarm high mean Dur	Time duration for alarm high mean unbalance	0.000...3600.000 s	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 1	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU2RQRC1.MaxVVa.mag.f	MV	FLOAT32	MX	B					Max unbalance Volt	Maximum 3 seconds unbalance voltage	0.00...150.00 %	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 2	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU2RQRC1.MaxVVa.t	MV	Timestamp	MX	B					Time Max Unb Volt	Time stamp of maximum voltage unbalance		Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 2	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU2RQRC1.VVaTm.mag.f	MV	FLOAT32	MX	B					Alarm high mean Dur	Time duration for alarm high mean unbalance	0.000...3600.000 s	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 2	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU3RQRC1.MaxVVa.mag.f	MV	FLOAT32	MX	B					Max unbalance Volt	Maximum 3 seconds unbalance voltage	0.00...150.00 %	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 3	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU3RQRC1.MaxVVa.t	MV	Timestamp	MX	B					Time Max Unb Volt	Time stamp of maximum voltage unbalance		Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 3	
VSQVUB1	PQUUB(1)	PQVUB(1)	MON	LD0.QVU3RQRC1.VVaTm.mag.f	MV	FLOAT32	MX	B					Alarm high mean Dur	Time duration for alarm high mean unbalance	0.000...3600.000 s	Monitoring\Recorded data\Power quality\VSQVUB1\Unbalance 3	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation On/Off	1=on; 5=off	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.UnbDetMth.setVal	ENG	Enum	SP	B	3				Unb detection method	Set the operation mode for voltage unbalance calculation	1=Neg Seq; 2=Zero Seq; 3=Neg to Pos Seq; 4=Zero to Pos Seq; 5=Ph vectors Comp	Settings\Settings\Power quality\VSQVUB1	

VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.StrVal.setMag.f	ASG	FLOAT32	SP	B	1				Unbalance start Val	Voltage unbalance start value	1...100 %	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.TrgModPQ.setVal	ENG	Enum	SP	B	3				Trigger mode	Specifies the observation period triggering mode	1=Single; 2=Periodic; 3=Continuous	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.ObsPerSel.setVal	ENG	Enum	SP	B	5				Obs period selection	Observation period for unbalance calculation	1=1 Hour; 2=12 Hours; 3=1 Day; 4=7 Days; 5=User defined	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.ObsPerUsr.setVal	ING	INT32	SP	B	168				User Def Obs period	User define observation period for statistic calculation	1...168 h	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.PctUnb.setMag.f	ASG	FLOAT32	SP	B	95				Percentile unbalance	The percent to which percentile value PCT_UNB_VAL is calculated	1...100 %	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.PerStrDate.setCal.occ	TSG	INT16U	SP	ED2,B	2011				Obs period Str year	Calendar time for observation period start year in YYYY	2008...2076	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.PerStrDate.setCal.month	TSG	Enum	SP	ED2,B	1				Obs period Str month	Calendar time for observation period start month	0=reserved; 1=January; 2=February; 3=March; 4=April; 5=May; 6=June; 7=July; 8=August; 9=September; 10=October; 11=November; 12=December	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.PerStrDate.setCal.day	TSG	INT8U	SP	ED2,B	1				Obs period Str day	Calendar time for observation period start day	1...31	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	SET	LD0.VSQVUB1.PerStrDate.setCal.hr	TSG	INT8U	SP	ED2,B	0				Obs period Str hour	Calendar time for observation period start hour	0...23 h	Settings\Settings\Power quality\VSQVUB1	
VSQVUB1	PQUUB(1)	PQVUB(1)	TES	LD0.VSQVUB1.TestOth.Oper.ctlVal	ENC	Enum	CO	B	0				VSQVUB1	Test control for outputs	0=Reset; 11=Activate MN_UNB_AL; 12=Deactive MN_UNB_AL; 13=Activate PCT_UNB_AL; 14=Deactive PCT_UNB_AL; 15=Activate OBS_PR_ACT; 16=Deactive OBS_PR_ACT	Tests\Function tests\Power quality	
VSQVUB1	PQUUB(1)	PQVUB(1)	VER	LD0.VSQVUB1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

SCEFRFLO1: Fault locator

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
SCEFRFLO1	FLOC(1)	21FL(1)	INP	LD0.SCEFRFLO1.RcdBlk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Signal for blocking the triggering		Monitoring\I/O status\Other protection\SCEFRFLO1\Inputs	
SCEFRFLO1	FLOC(1)	21FL(1)	INP	LD0.SCEFRFLO1.Trg.stVal	SPC	BOOLEAN	ST	B	0				TRIGG	Distance calculation triggering signal		Monitoring\I/O status\Other protection\SCEFRFLO1\Inputs	
SCEFRFLO1	FLOC(1)	21FL(1)	INP	LD0.SCEFRFLO1.TrgXC0F.stVal	SPC	BOOLEAN	ST	B	0				TRIGG_XC0F	XC0F calculation triggering signal		Monitoring\I/O status\Other protection\SCEFRFLO1\Inputs	
SCEFRFLO1	FLOC(1)	21FL(1)	OUT	LD0.SCEFRFLO1.Alm.stVal	SPS	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	ALARM	Fault location alarm signal		Monitoring\I/O status\Other protection\SCEFRFLO1\Outputs	
SCEFRFLO1	FLOC(1)	21FL(1)	CTR	LD0.SCEFRFLO1.Trg.Oper.ctlVal	SPC	BOOLEAN	CO							(Triggering signal for distance calculation)			
SCEFRFLO1	FLOC(1)	21FL(1)	CTR	LD0.SCEFRFLO1.TrgXC0F.Oper.ctlVal	SPC	BOOLEAN	CO							(Triggering signal for XC0F calculation)			

SCEFRFLO1	FLOC(1)	21FL(1)	CTR	LD0.SCEFRFLO1.RcdRs.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	SCEFRFLO1 reset	SCEFRFLO1 recorded data reset	0=Cancel; 1=Clear	Clear\Clear	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.Beh.stVal	ENS	Enum	ST	B					SCEFRFLO1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltDiskm.mag.f	MV	FLOAT32	MX	B					FLT_DISTANCE	Fault distance in units selected by the user	0.00...3000.00 pu	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltLoop.stVal	ENS	Enum	ST	B					FAULT_LOOP	Fault impedance loop	1=AG Fault; 2=BG Fault; 3=CG Fault; 4=AB Fault; 5=BC Fault; 6=CA Fault; 7=ABC Fault; -5=No fault	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltPtR.mag.f	MV	FLOAT32	MX	B					RF	Fault point resistance in primary ohms	0.0...1000000.0 ohm	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltR.mag.f	MV	FLOAT32	MX	B					RFLOOP	Fault loop resistance in primary ohms	0.0...1000000.0 ohm	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltX.mag.f	MV	FLOAT32	MX	B					XFLOOP	Fault loop reactance in primary ohms	0.0...1000000.0 ohm	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.PhReact.mag.f	MV	FLOAT32	MX	B					XFPHASE	Positive sequence fault reactance in primary ohms	0.0...1000000.0 ohm	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.RatFltALod.mag.f	MV	FLOAT32	MX	B					IFLT_PER_ILD	Fault to load current ratio	0.00...60000.00	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.EqDisLod.mag.f	MV	FLOAT32	MX	B					S_CALC	Estimated equivalent load distance	0.00...1.00	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.PhGndCapac.mag.f	MV	FLOAT32	MX	B					XC0F_CALC	Estimated PhE capacitive reactance of line	0.0...1000000.0 ohm	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.SCEFRFLO1.FltDisQ.stVal	INS	INT32	ST	B					FLT_DIST_Q	Fault distance quality	0...511	Monitoring\I/O status\Other protection\SCEFRFLO1\Monitored data	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltLoop.stVal	ENS	Enum	ST	B				MB,DN,I3	Flt loop	Fault loop	1=AG Fault; 2=BG Fault; 3=CG Fault; 4=AB Fault; 5=BC Fault; 6=CA Fault; 7=ABC Fault; -5=No fault	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltDiskm.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt distance	Fault distance	0.00...3000.00 pu	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltDiskm.t	MV	Timestamp	MX	B					Triggering time	Estimate triggering time		Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltPtR.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt point resistance	Fault resistance	0.0...1000000.0 ohm	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltDisQ.stVal	INS	INT32	ST	B				MB,DN,I3	Flt Dist quality	Fault distance quality	0...511	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltR.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt loop resistance	Fault loop resistance	0.0...1000000.0 ohm	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.FltX.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt loop reactance	Fault loop reactance	0.0...1000000.0 ohm	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.PhReact.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt phase reactance	Fault phase reactance	0.0...1000000.0 ohm	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.RatFltALod.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Flt to Lod Cur ratio	Fault to load current ratio	0.00...60000.00	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.EqDisLod.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	Equivalent load Dis	Estimated equivalent load distance	0.00...1.00	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.PhGndCapac.mag.f	MV	FLOAT32	MX	B				MB,DN,I3	XC0F Calc	Estimated PhE capacitive reactance of the line	0.0...1000000.0 ohm	Monitoring\Recorded data\Other protection\SCEFRFLO1	

SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhA.cVal.mag.f	CMV	FLOAT32	MX	B					A Pre Flt Phs A Magn	Pre-fault current phase A, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhA.cVal.ang.f	CMV	FLOAT32	MX	B					A Pre Flt Phs A Angl	Pre-fault current phase A, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhA.t	CMV	Timestamp	MX	B					Pre fault time	Pre-fault time		Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhB.cVal.mag.f	CMV	FLOAT32	MX	B					A Pre Flt Phs B Magn	Pre-fault current phase B, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhB.cVal.ang.f	CMV	FLOAT32	MX	B					A Pre Flt Phs B Angl	Pre-fault current phase B, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhC.cVal.mag.f	CMV	FLOAT32	MX	B					A Pre Flt Phs C Magn	Pre-fault current phase C, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.APreFltPhC.cVal.ang.f	CMV	FLOAT32	MX	B					A Pre Flt Phs C Angl	Pre-fault current phase C, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhA.cVal.mag.f	CMV	FLOAT32	MX	B					V Pre Flt Phs A Magn	Pre-fault voltage phase A, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhA.cVal.ang.f	CMV	FLOAT32	MX	B					V Pre Flt Phs A Angl	Pre-fault voltage phase A, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhB.cVal.mag.f	CMV	FLOAT32	MX	B					V Pre Flt Phs B Magn	Pre-fault voltage phase B, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhB.cVal.ang.f	CMV	FLOAT32	MX	B					V Pre Flt Phs B Angl	Pre-fault voltage phase B, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhC.cVal.mag.f	CMV	FLOAT32	MX	B					V Pre Flt Phs C Magn	Pre-fault voltage phase C, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VPreFltPhC.cVal.ang.f	CMV	FLOAT32	MX	B					V Pre Flt Phs C Angl	Pre-fault voltage phase C, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhA.cVal.mag.f	CMV	FLOAT32	MX	B					A Flt Phs A Magn	Fault current phase A, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhA.cVal.ang.f	CMV	FLOAT32	MX	B					A Flt Phs A angle	Fault current phase A, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhB.cVal.mag.f	CMV	FLOAT32	MX	B					A Flt Phs B Magn	Fault current phase B, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhB.cVal.ang.f	CMV	FLOAT32	MX	B					A Flt Phs B angle	Fault current phase B, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhC.cVal.mag.f	CMV	FLOAT32	MX	B					A Flt Phs C Magn	Fault current phase C, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.AFltPhC.cVal.ang.f	CMV	FLOAT32	MX	B					A Flt Phs C angle	Fault current phase C, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhA.cVal.mag.f	CMV	FLOAT32	MX	B					V Flt Phs A Magn	Fault voltage phase A, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhA.cVal.ang.f	CMV	FLOAT32	MX	B					V Flt Phs A angle	Fault voltage phase A, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhB.cVal.mag.f	CMV	FLOAT32	MX	B					V Flt Phs B Magn	Fault voltage phase B, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhB.cVal.ang.f	CMV	FLOAT32	MX	B					V Flt Phs B angle	Fault voltage phase B, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	

SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhC.cVal.mag.f	CMV	FLOAT32	MX	B					V Flt Phs C Magn	Fault voltage phase C, magnitude	0.00...40.00 xIn	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	MON	LD0.FLO1RFRC1.VFltPhC.cVal.ang.f	CMV	FLOAT32	MX	B					V Flt Phs C angle	Fault voltage phase C, angle	-180.00...180.00 deg	Monitoring\Recorded data\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.ZMaxLod.setMag.f	ASG	FLOAT32	SG	B	80.0				Z Max phase load	Impedance per phase of max. load, overcurr./under-imp., PSL	1.0...10000.0 ohm	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.PhLeakRis.setMag.f	ASG	FLOAT32	SG	B	210000				Ph leakage Ris	Line PhE leakage resistance in primary ohms	20...1000000 ohm	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.PhLinCapac.setMag.f	ASG	FLOAT32	SG	B	7000				Ph capacitive React	Line PhE capacitive reactance in primary ohms	10...1000000 ohm	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.EqLodDis.setMag.f	ASG	FLOAT32	SG	A	0.50				Equivalent load Dis	Equivalent load distance when EF algorithm equals to load modelling	0.00...1.00	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.TrgMod.setVal	ENG	Enum	SP	B	2				Calculation Trg mode	Trigger mode for distance calculation	1=Internal; 2=External	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.HiLimSpt.setMag.f	ASG	FLOAT32	SG	A	0.000				High alarm Dis limit	High alarm limit for calculated distance	0.000...1.000 pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.LoLimSpt.setMag.f	ASG	FLOAT32	SG	A	0.000				Low alarm Dis limit	Low alarm limit for calculated distance	0.000...1.000 pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.EFAlgSel.setVal	ENG	Enum	SP	A	1				EF algorithm Sel	Selection for PhE-loop calculation algorithm	1=Load compensation; 2=Load modelling	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.EFAlgASel.setVal	ENG	Enum	SP	A	1				EF algorithm Cur Sel	Selection for earth-fault current model	1=Io based; 2=I2 based	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.EnaLodComp.setVal	SPG	BOOLEAN	SP	A	1				Load Com PP loops	Enable load compensation for PP/3P-loops	0=Disabled; 1=Enabled	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.SimpMod.setVal	SPG	BOOLEAN	SP	A	0				Enable simple model	Enable calc. without impedance settings for PP/3P-loops	0=Disabled; 1=Enabled	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.DisEstVa.setMag.f	ASG	FLOAT32	SP	A	0.015				Distance estimate Va	Allowed variation of short circuit distance estimate	0.001...0.300	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEFRFLO1.PhVMeas.setVal	ENG	Enum	SP	B	1				Phase voltage Meas	Phase voltage measurement principle	1=Accurate; 2=Ph-to-ph without Uo	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF1ZLIN1.LinLenkm.setMag.f	ASG	FLOAT32	SG	B	0.000				Line Len section A	Line length, section A	0.000...1000.000 pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF1ZLIN1.RPs.setMag.f	ASG	FLOAT32	SG	B	1.000				R1 line section A	Positive sequence line resistance, line section A	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF1ZLIN1.XPs.setMag.f	ASG	FLOAT32	SG	B	1.000				X1 line section A	Positive sequence line reactance, line section A	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF1ZLIN1.RZer.setMag.f	ASG	FLOAT32	SG	B	4.000				R0 line section A	Zero sequence line resistance, line section A	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF1ZLIN1.XZer.setMag.f	ASG	FLOAT32	SG	B	4.000				X0 line section A	Zero sequence line reactance, line section A	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF2ZLIN1.LinLenkm.setMag.f	ASG	FLOAT32	SG	A	0.000				Line Len section B	Line length, section B	0.000...1000.000 pu	Settings\Settings\Other protection\SCEFRFLO1	

SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF2ZLIN1.RPs.setMag.f	ASG	FLOAT32	SG	A	1.000				R1 line section B	Positive sequence line resistance, line section B	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF2ZLIN1.XPs.setMag.f	ASG	FLOAT32	SG	A	1.000				X1 line section B	Positive sequence line reactance, line section B	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF2ZLIN1.RZer.setMag.f	ASG	FLOAT32	SG	A	4.000				R0 line section B	Zero sequence line resistance, line section B	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF2ZLIN1.XZer.setMag.f	ASG	FLOAT32	SG	A	4.000				X0 line section B	Zero sequence line reactance, line section B	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF3ZLIN1.LinLenkm.setMag.f	ASG	FLOAT32	SG	A	0.000				Line Len section C	Line length, section C	0.000...1000.000 pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF3ZLIN1.RPs.setMag.f	ASG	FLOAT32	SG	A	1.000				R1 line section C	Positive sequence line resistance, line section C	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF3ZLIN1.XPs.setMag.f	ASG	FLOAT32	SG	A	1.000				X1 line section C	Positive sequence line reactance, line section C	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF3ZLIN1.RZer.setMag.f	ASG	FLOAT32	SG	A	4.000				R0 line section C	Zero sequence line resistance, line section C	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	SET	LD0.SCEF3ZLIN1.XZer.setMag.f	ASG	FLOAT32	SG	A	4.000				X0 line section C	Zero sequence line reactance, line section C	0.000...1000.000 ohm / pu	Settings\Settings\Other protection\SCEFRFLO1	
SCEFRFLO1	FLOC(1)	21FL(1)	TES	LD0.SCEFRFLO1.TestProRl.Oper.ctlVal	ENC	Enum	CO	B	0				SCEFRFLO1	Test control for outputs	0=Reset; 39=Activate ALARM; 40=Deactive ALARM	Tests\Function tests\Other protection	
SCEFRFLO1	FLOC(1)	21FL(1)	VER	LD0.SCEFRFLO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	B					(Name plate)			

EFPADM1: Neutral admittance protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFPADM1	Yo>->(1)	21YN(1)	INP	LD0.EFPADM1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFPADM1\Inputs	
EFPADM1	Yo>->(1)	21YN(1)	INP	LD0.EFPADM1.TrgSt.stVal	SPS	BOOLEAN	ST	B	0				RELEASE	External trigger to release neutral admittance protection		Monitoring\I/O status\Current protection\EFPADM1\Inputs	
EFPADM1	Yo>->(1)	21YN(1)	OUT	LD0.EFPADM1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFPADM1\Outputs	
EFPADM1	Yo>->(1)	21YN(1)	OUT	LD0.EFPADM1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFPADM1\Outputs	
EFPADM1	Yo>->(1)	21YN(1)	MON	LD0.EFPADM1.Beh.stVal	ENS	Enum	ST	B					EFPADM1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFPADM1	Yo>->(1)	21YN(1)	MON	LD0.EFPADM1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\EFPADM1\Monitored data	
EFPADM1	Yo>->(1)	21YN(1)	MON	LD0.EFPADM1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFPADM1\Monitored data	
EFPADM1	Yo>->(1)	21YN(1)	MON	LD0.EFPADM1.Cond.mag.f	MV	FLOAT32	MX	B					COND_RES	Real part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM1\Monitored data	
EFPADM1	Yo>->(1)	21YN(1)	MON	LD0.EFPADM1.Sus.mag.f	MV	FLOAT32	MX	B					SUS_RES	Imaginary part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM1\Monitored data	

EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.VStr.setMag.f	ASG	FLOAT32	SG	B	0.15				Voltage start value	Voltage start value	0.01...2.00 xUn	Settings\Settings\Current protection\EFPADM1	RESTVTR1
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...200000 ms	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.OpModAdm.setVal	ENG	Enum	SG	B	1				Operation mode	Operation criteria	1=Yo; 2=Go; 3=Bo; 4=Yo, Go; 5=Yo, Bo; 6=Go, Bo; 7=Yo, Go, Bo	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\EFPADM1	RESTCTR1
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\EFPADM1	RESTVTR1
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CondTiltAng.setMag.f	ASG	FLOAT32	SG	ED2,A	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CondTltAng.setMag.f	ASG	FLOAT32	SG	ED1	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CondFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Conductance forward	Conductance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CondRv.setMag.f	ASG	FLOAT32	SG	B	-1.0				Conductance reverse	Conductance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.SusTiltAng.setMag.f	ASG	FLOAT32	SG	A	0				Susceptance tilt Ang	Tilt angle of susceptance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.SusFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Susceptance forward	Susceptance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.SusRv.setMag.f	ASG	FLOAT32	SG	B	-1.00				Susceptance reverse	Susceptance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CirclRd.setMag.f	ASG	FLOAT32	SG	B	1.00				Circle radius	Admittance circle radius	0.05...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CirclCond.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle conductance	Admittance circle midpoint, conductance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.CirclSus.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle susceptance	Admittance circle midpoint, susceptance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	SET	LD0.EFPADM1.AdmClcMod.setVal	ENG	Enum	SP	A	1				Admittance Clc mode	Admittance calculation mode	1=Normal; 2=Delta	Settings\Settings\Current protection\EFPADM1	
EFPADM1	Yo>->(1)	21YN(1)	TES	LD0.EFPADM1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFPADM1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	

EFPADM1	Yo>->(1)	21YN(1)	VER	LD0.EFPADM1.NamPlt.swRev	LPL	VisString255 (20)	DC		E					(Name plate)			

EFPADM2: Neutral admittance protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFPADM2	Yo>->(2)	21YN(2)	INP	LD0.EFPADM2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFPADM2\Inputs	
EFPADM2	Yo>->(2)	21YN(2)	INP	LD0.EFPADM2.TrgSt.stVal	SPS	BOOLEAN	ST	B	0				RELEASE	External trigger to release neutral admittance protection		Monitoring\I/O status\Current protection\EFPADM2\Inputs	
EFPADM2	Yo>->(2)	21YN(2)	OUT	LD0.EFPADM2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFPADM2\Outputs	
EFPADM2	Yo>->(2)	21YN(2)	OUT	LD0.EFPADM2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFPADM2\Outputs	
EFPADM2	Yo>->(2)	21YN(2)	MON	LD0.EFPADM2.Beh.stVal	ENS	Enum	ST	B					EFPADM2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFPADM2	Yo>->(2)	21YN(2)	MON	LD0.EFPADM2.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\EFPADM2\Monitored data	
EFPADM2	Yo>->(2)	21YN(2)	MON	LD0.EFPADM2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFPADM2\Monitored data	
EFPADM2	Yo>->(2)	21YN(2)	MON	LD0.EFPADM2.Cond.mag.f	MV	FLOAT32	MX	B					COND_RES	Real part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM2\Monitored data	
EFPADM2	Yo>->(2)	21YN(2)	MON	LD0.EFPADM2.Sus.mag.f	MV	FLOAT32	MX	B					SUS_RES	Imaginary part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM2\Monitored data	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.VStr.setMag.f	ASG	FLOAT32	SG	B	0.15				Voltage start value	Voltage start value	0.01...2.00 xUn	Settings\Settings\Current protection\EFPADM2	RESTVTR1
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...200000 ms	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.OpModAdm.setVal	ENG	Enum	SG	B	1				Operation mode	Operation criteria	1=Yo; 2=Go; 3=Bo; 4=Yo, Go; 5=Yo, Bo; 6=Go, Bo; 7=Yo, Go, Bo	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\EFPADM2	RESTCTR1
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\EFPADM2	RESTVTR1
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CondTiltAng.setMag.f	ASG	FLOAT32	SG	ED2,A	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CondTltAng.setMag.f	ASG	FLOAT32	SG	ED1	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM2	

EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CondFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Conductance forward	Conductance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CondRv.setMag.f	ASG	FLOAT32	SG	B	-1.0				Conductance reverse	Conductance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.SusTiltAng.setMag.f	ASG	FLOAT32	SG	A	0				Susceptance tilt Ang	Tilt angle of susceptance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.SusFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Susceptance forward	Susceptance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.SusRv.setMag.f	ASG	FLOAT32	SG	B	-1.00				Susceptance reverse	Susceptance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CirclRd.setMag.f	ASG	FLOAT32	SG	B	1.00				Circle radius	Admittance circle radius	0.05...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CirclCond.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle conductance	Admittance circle midpoint, conductance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.CirclSus.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle susceptance	Admittance circle midpoint, susceptance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	SET	LD0.EFPADM2.AdmClcMod.setVal	ENG	Enum	SP	A	1				Admittance Clc mode	Admittance calculation mode	1=Normal; 2=Delta	Settings\Settings\Current protection\EFPADM2	
EFPADM2	Yo>->(2)	21YN(2)	TES	LD0.EFPADM2.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFPADM2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFPADM2	Yo>->(2)	21YN(2)	VER	LD0.EFPADM2.NamPlt.swRev	LPL	VisString255 (20)	DC		E					(Name plate)			

EFPADM3: Neutral admittance protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
EFPADM3	Yo>->(3)	21YN(3)	INP	LD0.EFPADM3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\EFPADM3\Inputs	
EFPADM3	Yo>->(3)	21YN(3)	INP	LD0.EFPADM3.TrgSt.stVal	SPS	BOOLEAN	ST	B	0				RELEASE	External trigger to release neutral admittance protection		Monitoring\I/O status\Current protection\EFPADM3\Inputs	
EFPADM3	Yo>->(3)	21YN(3)	OUT	LD0.EFPADM3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\EFPADM3\Outputs	
EFPADM3	Yo>->(3)	21YN(3)	OUT	LD0.EFPADM3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\EFPADM3\Outputs	
EFPADM3	Yo>->(3)	21YN(3)	MON	LD0.EFPADM3.Beh.stVal	ENS	Enum	ST	B					EFPADM3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
EFPADM3	Yo>->(3)	21YN(3)	MON	LD0.EFPADM3.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\EFPADM3\Monitored data	

EFPADM3	Yo>->(3)	21YN(3)	MON	LD0.EFPADM3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\EFPADM3\Monitored data	
EFPADM3	Yo>->(3)	21YN(3)	MON	LD0.EFPADM3.Cond.mag.f	MV	FLOAT32	MX	B					COND_RES	Real part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM3\Monitored data	
EFPADM3	Yo>->(3)	21YN(3)	MON	LD0.EFPADM3.Sus.mag.f	MV	FLOAT32	MX	B					SUS_RES	Imaginary part of calculated neutral admittance	-1000.00...1000.00 mS	Monitoring\I/O status\Current protection\EFPADM3\Monitored data	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.VStr.setMag.f	ASG	FLOAT32	SG	B	0.15				Voltage start value	Voltage start value	0.01...2.00 xUn	Settings\Settings\Current protection\EFPADM3	RESTVTR1
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time	60...200000 ms	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	1=Non-directional; 2=Forward; 3=Reverse	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.OpModAdm.setVal	ENG	Enum	SG	B	1				Operation mode	Operation criteria	1=Yo; 2=Go; 3=Bo; 4=Yo, Go; 5=Yo, Bo; 6=Go, Bo; 7=Yo, Go, Bo	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate current	Minimum operating current	0.01...1.00 xIn	Settings\Settings\Current protection\EFPADM3	RESTCTR1
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\EFPADM3	RESTVTR1
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CondTiltAng.setMag.f	ASG	FLOAT32	SG	ED2,A	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CondTltAng.setMag.f	ASG	FLOAT32	SG	ED1	0				Conductance tilt Ang	Tilt angle of conductance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CondFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Conductance forward	Conductance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CondRv.setMag.f	ASG	FLOAT32	SG	B	-1.0				Conductance reverse	Conductance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.SusTiltAng.setMag.f	ASG	FLOAT32	SG	A	0.0				Susceptance tilt Ang	Tilt angle of susceptance boundary line	-30...30 deg	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.SusFwd.setMag.f	ASG	FLOAT32	SG	B	1.00				Susceptance forward	Susceptance threshold in forward direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.SusRv.setMag.f	ASG	FLOAT32	SG	B	-1.00				Susceptance reverse	Susceptance threshold in reverse direction	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CirclRd.setMag.f	ASG	FLOAT32	SG	B	1.00				Circle radius	Admittance circle radius	0.05...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CirclCond.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle conductance	Admittance circle midpoint, conductance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.CirclSus.setMag.f	ASG	FLOAT32	SG	B	0.00				Circle susceptance	Admittance circle midpoint, susceptance	-500.00...500.00 mS	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\EFPADM3	

EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used Uo signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	SET	LD0.EFPADM3.AdmClcMod.setVal	ENG	Enum	SP	A	1				Admittance Clc mode	Admittance calculation mode	1=Normal; 2=Delta	Settings\Settings\Current protection\EFPADM3	
EFPADM3	Yo>->(3)	21YN(3)	TES	LD0.EFPADM3.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				EFPADM3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
EFPADM3	Yo>->(3)	21YN(3)	VER	LD0.EFPADM3.NamPlt.swRev	LPL	VisString255 (20)	DC		E					(Name plate)			

WPWDE1: Wattmetric directional earth-fault

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
WPWDE1	Po>->(1)	32N(1)	INP	LD0.WPSDE1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\WPWDE1\Inputs	
WPWDE1	Po>->(1)	32N(1)	INP	LD0.WRDIR1.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\WPWDE1\Inputs	
WPWDE1	Po>->(1)	32N(1)	OUT	LD0.WPSDE1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\WPWDE1\Outputs	
WPWDE1	Po>->(1)	32N(1)	OUT	LD0.WPSDE1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\WPWDE1\Outputs	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WPSDE1.Beh.stVal	ENS	Enum	ST	B					WPWDE1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WPSDE1.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WPSDE1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WRDIR1.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WRDIR1.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WRDIR1.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	MON	LD0.WMMXU1.W.res.cVal.mag.f	WYE	FLOAT32	MX	B					RES_POWER	Calculated residual active power	-160.000...160.000 xPn	Monitoring\I/O status\Current protection\WPWDE1\Monitored data	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.GndStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Start value for residual voltage	0.010...1.000 xUn	Settings\Settings\Current protection\WPWDE1	RESTCTR1
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.GndOp.setMag.f	ASG	FLOAT32	SG	B	0.010				Current start value	Minimum operate residual current for deciding fault direction	0.010...5.000 xIn	Settings\Settings\Current protection\WPWDE1	RESTCTR1
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time for definite time	60...200000 ms	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Current protection\WPWDE1	

WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.003				Power start value	Start value for residual active power	0.003...1.000 xPn	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 20=Wattmetric IDMT	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1				Time multiplier	Time multiplier for Wattmetric IDMT curves	0.05...2.00	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.RefW.setMag.f	ASG	FLOAT32	SG	B	0.150				Reference power	Reference value of residual power for Wattmetric IDMT curves	0.050...1.000 xPn	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used current measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WPSDE1.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.010				Min operate current	Minimum operating current	0.010...1.000 xIn	Settings\Settings\Current protection\WPWDE1	RESTCTR1
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\WPWDE1	RESTCTR1
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.CorAng.setMag.f	ASG	FLOAT32	SP	A	2.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	SET	LD0.WRDIR1.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used polarization signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\WPWDE1	
WPWDE1	Po>->(1)	32N(1)	TES	LD0.WPSDE1.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				WPWDE1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
WPWDE1	Po>->(1)	32N(1)	VER	LD0.WPSDE1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

WPWDE2: Wattmetric directional earth-fault

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
WPWDE2	Po>->(2)	32N(2)	INP	LD0.WPSDE2.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\WPWDE2\Inputs	
WPWDE2	Po>->(2)	32N(2)	INP	LD0.WRDIR2.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\WPWDE2\Inputs	
WPWDE2	Po>->(2)	32N(2)	OUT	LD0.WPSDE2.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\WPWDE2\Outputs	
WPWDE2	Po>->(2)	32N(2)	OUT	LD0.WPSDE2.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\WPWDE2\Outputs	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WPSDE2.Beh.stVal	ENS	Enum	ST	B					WPWDE2	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	

WPWDE2	Po>->(2)	32N(2)	MON	LD0.WPSDE2.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WPSDE2.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WRDIR2.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WRDIR2.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WRDIR2.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	MON	LD0.WMMXU2.W.res.cVal.mag.f	WYE	FLOAT32	MX	B					RES_POWER	Calculated residual active power	-160.000...160.000 xPn	Monitoring\I/O status\Current protection\WPWDE2\Monitored data	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.GndStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Start value for residual voltage	0.010...1.000 xUn	Settings\Settings\Current protection\WPWDE2	RESTCTR1
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.GndOp.setMag.f	ASG	FLOAT32	SG	B	0.010				Current start value	Minimum operate residual current for deciding fault direction	0.010...5.000 xIn	Settings\Settings\Current protection\WPWDE2	RESTCTR1
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time for definite time	60...200000 ms	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.003				Power start value	Start value for residual active power	0.003...1.000 xPn	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 20=Wattmetric IDMT	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.TmMult.setMag.f	ASG	FLOAT32	SG	B	1				Time multiplier	Time multiplier for Wattmetric IDMT curves	0.05...2.00	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.RefW.setMag.f	ASG	FLOAT32	SG	B	0.150				Reference power	Reference value of residual power for Wattmetric IDMT curves	0.050...1.000 xPn	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used current measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WPSDE2.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.010				Min operate current	Minimum operating current	0.010...1.000 xIn	Settings\Settings\Current protection\WPWDE2	RESTCTR1
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\WPWDE2	RESTCTR1
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.CorAng.setMag.f	ASG	FLOAT32	SP	A	2.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\WPWDE2	

WPWDE2	Po>->(2)	32N(2)	SET	LD0.WRDIR2.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used polarization signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\WPWDE2	
WPWDE2	Po>->(2)	32N(2)	TES	LD0.WPSDE2.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				WPWDE2	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
WPWDE2	Po>->(2)	32N(2)	VER	LD0.WPSDE2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

WPWDE3: Wattmetric directional earth-fault

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
WPWDE3	Po>->(3)	32N(3)	INP	LD0.WPSDE3.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\WPWDE3\Inputs	
WPWDE3	Po>->(3)	32N(3)	INP	LD0.WRDIR3.InRcaCtl.stVal	SPS	BOOLEAN	ST	B	0				RCA_CTL	Relay characteristic angle control		Monitoring\I/O status\Current protection\WPWDE3\Inputs	
WPWDE3	Po>->(3)	32N(3)	OUT	LD0.WPSDE3.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\WPWDE3\Outputs	
WPWDE3	Po>->(3)	32N(3)	OUT	LD0.WPSDE3.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\WPWDE3\Outputs	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WPSDE3.Beh.stVal	ENS	Enum	ST	B					WPWDE3	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WPSDE3.Str.dirGeneral	ACD	Enum	ST	B		StatNrml	P,H		FAULT_DIR	Detected fault direction	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WPSDE3.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WRDIR3.Dir.dirGeneral	ACD	Enum	ST	B					DIRECTION	Direction information	0=unknown; 1=forward; 2=backward; 3=both	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WRDIR3.OpPolAng.mag.f	MV	FLOAT32	MX	B					ANGLE	Angle between polarizing and operating quantity	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WRDIR3.OpChrAng.mag.f	MV	FLOAT32	MX	B					ANGLE_RCA	Angle between operating angle and characteristic angle	-180.00...180.00 deg	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	MON	LD0.WMMXU3.W.res.cVal.mag.f	WYE	FLOAT32	MX	B					RES_POWER	Calculated residual active power	-160.000...160.000 xPn	Monitoring\I/O status\Current protection\WPWDE3\Monitored data	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.GndStr.setMag.f	ASG	FLOAT32	SG	B	0.010				Voltage start value	Start value for residual voltage	0.010...1.000 xUn	Settings\Settings\Current protection\WPWDE3	RESTCTR1
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.GndOp.setMag.f	ASG	FLOAT32	SG	B	0.010				Current start value	Minimum operate residual current for deciding fault direction	0.010...5.000 xIn	Settings\Settings\Current protection\WPWDE3	RESTCTR1
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.OpDlTmms.setVal	ING	INT32	SG	B	60				Operate delay time	Operate delay time for definite time	60...200000 ms	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.DirMod.setVal	ENG	Enum	SG	B	2				Directional mode	Directional mode	2=Forward; 3=Reverse	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.003				Power start value	Start value for residual active power	0.003...1.000 xPn	Settings\Settings\Current protection\WPWDE3	

WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.TmACrv.setCharact	CURVE	Enum	SG	B	15				Operating curve type	Selection of time delay curve type	5=ANSI Def. Time; 15=IEC Def. Time; 20=Wattmetric IDMT	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.TmMult.setMag.f	ASG	FLOAT32	SG	B	1				Time multiplier	Time multiplier for Wattmetric IDMT curves	0.05...2.00	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.RefW.setMag.f	ASG	FLOAT32	SG	B	0.150				Reference power	Reference value of residual power for Wattmetric IDMT curves	0.050...1.000 xPn	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.AMeasMod.setVal	ENG	Enum	SP	A	2				Measurement mode	Selects used current measurement mode	1=RMS; 2=DFT; 3=Peak-to-Peak	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WPSDE3.AResSigSel.setVal	ENG	Enum	SP	A,I	1				Io signal Sel	Selection for used Io signal	1=Measured Io; 2=Calculated Io	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.ChrAng.setMag.f	ASG	FLOAT32	SG	B	-90				Characteristic angle	Characteristic angle	-179...180 deg	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.BlkValA.setMag.f	ASG	FLOAT32	SP	A	0.010				Min operate current	Minimum operating current	0.010...1.000 xIn	Settings\Settings\Current protection\WPWDE3	RESTCTR1
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.BlkValV.setMag.f	ASG	FLOAT32	SP	A	0.01				Min operate voltage	Minimum operating voltage	0.01...1.00 xUn	Settings\Settings\Current protection\WPWDE3	RESTCTR1
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.CorAng.setMag.f	ASG	FLOAT32	SP	A	2.0				Correction angle	Angle correction	0.0...10.0 deg	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.RevPol.setVal	SPG	BOOLEAN	SP	A	0				Pol reversal	Rotate polarizing quantity		Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	SET	LD0.WRDIR3.VResSigSel.setVal	ENG	Enum	SP	A,I	1				Uo signal Sel	Selection for used polarization signal	1=Measured Uo; 2=Calculated Uo	Settings\Settings\Current protection\WPWDE3	
WPWDE3	Po>->(3)	32N(3)	TES	LD0.WPSDE3.TestPro.Oper.ctlVal	ENC	Enum	CO	B	0				WPWDE3	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
WPWDE3	Po>->(3)	32N(3)	VER	LD0.WPSDE3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

HAEFPTOC1: Harmonics earth-fault protection

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
HAEFPTOC1	Io>HA(1)	51NHA(1)	INP	LD0.HAEFPTOC1.Blk.stVal	SPS	BOOLEAN	ST	B	0				BLOCK	Block signal for activating the blocking mode		Monitoring\I/O status\Current protection\HAEFPTOC1\Inputs	
HAEFPTOC1	Io>HA(1)	51NHA(1)	INP	LD0.HAEFPTOC1.HRmsARef.res.cVal.mag.f	WYE	FLOAT32	MX	B	0.0				I_REF_RES	Reference current	0.0...30000.0 A	Monitoring\I/O status\Current protection\HAEFPTOC1\Inputs	
HAEFPTOC1	Io>HA(1)	51NHA(1)	OUT	LD0.HAEFPTOC1.Str.general	ACD	BOOLEAN	ST	B		StatNrml	P,H	MB,DN,I3	START	Start		Monitoring\I/O status\Current protection\HAEFPTOC1\Outputs	
HAEFPTOC1	Io>HA(1)	51NHA(1)	OUT	LD0.HAEFPTOC1.Op.general	ACT	BOOLEAN	ST	B		StatNrml	P,H,T	MB,DN,I3	OPERATE	Operate		Monitoring\I/O status\Current protection\HAEFPTOC1\Outputs	
HAEFPTOC1	Io>HA(1)	51NHA(1)	MON	LD0.HAEFPTOC1.Beh.stVal	ENS	Enum	ST	B					HAEFPTOC1	Status	1=on; 2=blocked; 3=test; 4=test/blocked; 5=off	Monitoring\FB status	

HAEFPTOC1	Io>HA(1)	51NHA(1)	MON	LD0.HAEFPTOC1.StrDur.mag.f	MV	FLOAT32	MX	B					START_DUR	Ratio of start time / operate time	0.00...100.00 %	Monitoring\I/O status\Current protection\HAEFPTOC1\Monitored data	
HAEFPTOC1	Io>HA(1)	51NHA(1)	MON	LD0.HAEFPTOC1.BlkARef.stVal	SPS	BOOLEAN	ST	B					BLKD_I_REF	Current comparison status indicator		Monitoring\I/O status\Current protection\HAEFPTOC1\Monitored data	
HAEFPTOC1	Io>HA(1)	51NHA(1)	MON	LD0.HAEFMHAI1.HRmsA.res.cVal.mag.f	WYE	FLOAT32	MX	B		MeasFlt	P	MB,DN,I3	I_HARM_RES	Calculated harmonics current	0.0...30000.0 A	Monitoring\I/O status\Current protection\HAEFPTOC1\Monitored data	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation Off / On	1=on; 5=off	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setCharact	CURVE	Enum	SG	B,I	15				Operating curve type	Selection of time delay curve type	1=ANSI Ext. inv.; 2=ANSI Very inv.; 3=ANSI Norm. inv.; 4=ANSI Mod. inv.; 5=ANSI Def. Time; 6=L.T.E. inv.; 7=L.T.V. inv.; 8=L.T. inv.; 9=IEC Norm. inv.; 10=IEC Very inv.; 11=IEC inv.; 12=IEC Ext. inv.; 13=IEC S.T. inv.; 14=IEC L.T. inv.; 15=IEC Def. Time; 17=Programmable; 18=RI type; 19=RD type	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setParA	CURVE	FLOAT32	SP	B,I	28.2000				Curve parameter A	Parameter A for customer programmable curve	0.0086...120.0000	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setParB	CURVE	FLOAT32	SP	B,I	0.1217				Curve parameter B	Parameter B for customer programmable curve	0.0000...0.7120	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setParC	CURVE	FLOAT32	SP	B,I	2.00				Curve parameter C	Parameter C for customer programmable curve	0.02...2.00	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setParD	CURVE	FLOAT32	SP	B,I	29.10				Curve parameter D	Parameter D for customer programmable curve	0.46...30.00	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmACrv.setParE	CURVE	FLOAT32	SP	B,I	1.0				Curve parameter E	Parameter E for customer programmable curve	0.0...1.0	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.StrVal.setMag.f	ASG	FLOAT32	SG	B	0.10				Start value	Start value	0.05...5.00 xIn	Settings\Settings\Current protection\HAEFPTOC1	RESTCTR1
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TmMult.setMag.f	ASG	FLOAT32	SG	B	1.00				Time multiplier	Time multiplier in IEC/ANSI IDMT curves	0.05...15.00	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.MinOpTmms.setVal	ING	INT32	SG	A	500				Minimum operate time	Minimum operate time for IDMT curves	100...200000 ms	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.OpDlTmms.setVal	ING	INT32	SG	B	600				Operate delay time	Operate delay time	100...200000 ms	Settings\Settings\Current protection\HAEFPTOC1	

HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.TypRsCrv.setVal	ENG	Enum	SG	A	1				Type of reset curve	Selection of reset curve type	1=Immediate; 2=Def time reset; 3=Inverse reset	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.RsDlTmms.setVal	ING	INT32	SP	A	20				Reset delay time	Reset delay time	0...60000 ms	Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	SET	LD0.HAEFPTOC1.EnaRef.setVal	SPG	BOOLEAN	SG	A,I	0				Enable reference use	Enable using current reference from other IEDs instead of stand-alone		Settings\Settings\Current protection\HAEFPTOC1	
HAEFPTOC1	Io>HA(1)	51NHA(1)	TES	LD0.HAEFPTOC1.TstOutCmd.Oper.ctlVal	ENC	Enum	CO	B	0				HAEFPTOC1	Test control for outputs	0=Reset; 1=Activate START; 2=Deactive START; 9=Activate OPERATE; 10=Deactive OPERATE	Tests\Function tests\Current protection	
HAEFPTOC1	Io>HA(1)	51NHA(1)	VER	LD0.HAEFPTOC1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

Control LLN0: Control general

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Control LLN0			INP	CTRL.LLN0.LocKeyOff.stVal	SPS	BOOLEAN	ST		0					(Control disable)			
Control LLN0			INP	CTRL.LLN0.LocKeyLoc.stVal	SPS	BOOLEAN	ST		0					(Control local)			
Control LLN0			INP	CTRL.LLN0.LocKeyRem.stVal	SPS	BOOLEAN	ST		0					(Control remote)			
Control LLN0			INP	CTRL.LLN0.LocKeySta.stVal	SPS	BOOLEAN	ST		0					(Control station)			
Control LLN0			INP	CTRL.LLN0.LocKeyAll.stVal	SPS	BOOLEAN	ST		0					(Control all)			
Control LLN0			OUT	CTRL.LLN0.LocKeyOff.stVal	SPS	BOOLEAN	ST		0					(Control disable)			
Control LLN0			OUT	CTRL.LLN0.LocKeyLoc.stVal	SPS	BOOLEAN	ST		0					(Control local)			
Control LLN0			OUT	CTRL.LLN0.LocKeyRem.stVal	SPS	BOOLEAN	ST		0					(Control remote)			
Control LLN0			OUT	CTRL.LLN0.LocKeySta.stVal	SPS	BOOLEAN	ST		0					(Control station)			
Control LLN0			OUT	CTRL.LLN0.LocKeyAll.stVal	SPS	BOOLEAN	ST		0					(Control all)			
Control LLN0			CTR	CTRL.LLN0.LocSta.Oper.ctlVal	SPC	BOOLEAN	CO							(Station operation)			
Control LLN0			MON	CTRL.LLN0.Loc.stVal	SPS	BOOLEAN	ST	OW,ER,AW		StatUrg	P,H	MB,DN,I3,I1		(Local / Remote)			
Control LLN0			MON	CTRL.LLN0.LocKey.stVal	SPS	BOOLEAN	ST			StatUrg	P,H			(Local operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.Oper.ctlVal	SPC	BOOLEAN	CO							(Station operation)			

Control LLN0			MON	CTRL.LLN0.LocSta.Oper.origin.orCat	SPC	Enum	CO							(Station operation)	0=not-supported1=bay-control2=station-control3=remote-control4=automatic-bay5=automatic-station6=automatic-remote7=maintenance8=process		
Control LLN0			MON	CTRL.LLN0.LocSta.Oper.origin.orIdent	SPC	Octet64	CO							(Station operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.Oper.ctlNum	SPC	INT8U	CO							(Station operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.Oper.Test	SPC	BOOLEAN	CO							(Station operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.Oper.Check	SPC	Bstring2	CO							(Station operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.stVal	SPC	BOOLEAN	ST			StatUrg	P,H			(Station operation)			
Control LLN0			MON	CTRL.LLN0.LocSta.ctlModel	SPC	Enum	CF							(Station operation)	0=status-only1=direct-with-normal-security		
Control LLN0			MON	CTRL.LLN0.MltLev.setVal	SPG	BOOLEAN	SP							(Multiple levels)			
Control LLN0			MON	CTRL.LLN0.CmdBlk.stVal	SPC	BOOLEAN	ST			StatUrg	P,H			(Commands blocked)			
Control LLN0			MON	CTRL.LLN0.CmdBlk.ctlModel	SPC	Enum	CF							(Commands blocked)	0=status-only		
Control LLN0			MON			Enum		B					Command response	Latest command response	0=No commands; 1=Select open; 2=Select close; 3=Operate open; 4=Operate close; 5=Direct open; 6=Direct close; 7=Cancel; 8=Position reached; 9=Position timeout; 10=Object status only; 11=Object direct; 12=Object select; 13=RL local allowed; 14=RL remote allowed; 15=RL off; 16=Function off; 17=Function blocked; 18=Command progress; 19=Select timeout; 20=Missing authority; 21=Close not enabled; 22=Open not enabled; 23=Internal fault; 24=Already close; 25=Wrong client; 26=RL station allowed; 27=RL change; 28=Abortion by trip	Monitoring\Control command	
Control LLN0			MON	CTRL.LLN0.LocKeyHMI.stVal	ENS	Enum	ST	B,OW,ER,AW		StatUrg	P,H	MB,DN,I3	LR state	LR state monitoring	0=Off; 1=Local; 2=Remote; 3=Station; 4=L+R; 5=L+S; 6=L+S+R; 7=S+R	Monitoring\Control command	
Control LLN0			CFG	CTRL.LLN0.Mod.Oper.ctlVal	ENC	Enum	CO	A,I	1				Control mode	Enabling and disabling control	1=On; 2=Blocked; 5=Off	Configuration\Control\General	
Control LLN0			CFG	CTRL.LLN0.LocRemMod.setVal	ENG	Enum	SP	B	1				LR control	LR control through LR key or binary input	1=LR key; 2=Binary input	Configuration\Control\General	
Control LLN0			CFG	CTRL.LLN0.StaLevSet.setVal	ENG	Enum	SP	B	1				Station authority	Control command originator category usage	1=L,R; 2=L,S,R; 3=L,R,L+R; 4=L,S,S+R,L+S,L+S+R	Configuration\Control\General	
Control LLN0			VER	CTRL.LLN0.NamPlt.swRev	LPL	VisString255 (20)	DC		D					(Control)			
Control LLN0			VER	CTRL.LLN0.NamPlt.ldNs	LPL	VisString255 (20)	EX		IEC 61850-7-4:2007 IEC 61850-7-4:2003					(Control)			

CBXCBR1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBCILO1.EnaOpn.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3,I1	ENA_OPEN	Enables opening		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBCILO1.EnaCls.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3,I1	ENA_CLOSE	Enables closing		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBCSWI1.InSynOk.stVal	SPS	BOOLEAN	ST	B	1				SYNC_OK	Synchronism-check OK		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBCSWI1.SynItlByps.stVal	SPS	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	SYNC_ITL_BYP	Discards ENA_OPEN and ENA_CLOSE interlocking when TRUE		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBXCBR1.BlkOpn.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3,I1	BLK_OPEN	Blocks opening		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP	CTRL.CBXCBR1.BlkCls.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3,I1	BLK_CLOSE	Blocks closing		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP			BOOLEAN		B	0				TRIP	Trip signal		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP			BOOLEAN		B	0				AU_OPEN	Auxiliary open		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP			BOOLEAN		B	0				AU_CLOSE	Auxiliary close		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\CBXCBR1\Inputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.Pos.stSeld	DPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3,I1	SELECTED	Object selected		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.OpOpn.general	ACT	BOOLEAN	ST	B					EXE_OP	Executes the command for open direction		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.OpCls.general	ACT	BOOLEAN	ST	B					EXE_CL	Executes the command for close direction		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.OpnEna.stVal	SPS	BOOLEAN	ST	B					OPEN_ENAD	Opening is enabled based on the input status		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT	CTRL.CBCSWI1.ClsEna.stVal	SPS	BOOLEAN	ST	B					CLOSE_ENAD	Closing is enabled based on the input status		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT			BOOLEAN		B					OP_REQ	Open request		Monitoring\I/O status\Control\CBXCBR1\Outputs	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	OUT			BOOLEAN		B					CL_REQ	Close request		Monitoring\I/O status\Control\CBXCBR1\Outputs	

CBXCBR1	I<->O CB(1)	I<->O CB(1)	CTR	CTRL.CBCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0			DN	Operation counter	Breaker operation cycles	0...10000	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CTR	CTRL.CBCSWI1.Pos.SBOw.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CTR	CTRL.CBCSWI1.Pos.Oper.ctlVal	DPC	BOOLEAN	CO					MB,DN,I1		(Switch, general)			
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CTR	CTRL.CBCSWI1.Pos.Cancel.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
CBXCBR1	I<->O CB(1)	I<->O CB(1)	MON	CTRL.CBCSWI1.Loc.stVal	SPS	BOOLEAN	ST			StatUrg	P,H			(Local operation)			
CBXCBR1	I<->O CB(1)	I<->O CB(1)	MON	CTRL.CBCSWI1.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3,I1	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\CBXCBR1\Monitored data	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation mode on/off	1=on; 5=off	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0			DN	Operation counter	Breaker operation cycles	0...10000	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.pulseConfig.onDur	DPC	INT32U	CF	B,I	200				Pulse length	Open and close pulse length	10...60000 ms	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.ctlModel	DPC	Enum	CF	B,I	4				Control model	Select control model	0=status-only; 1=direct-with-normal-security; 4=sbo-with-enhanced-security	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.sboTimeout	DPC	INT32U	CF	B,I	30000				Select timeout	Select timeout in ms	10000...300000 ms	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.dU	DPC	Unicode255	DC	ED2,B	CBXCBR1 switch position				Identification	Control Object identification		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.d	DPC	VisString255 (64)	DC		CBXCBR1 switch position				Identification	Control Object identification		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.Pos.operTimeout	DPC	INT32U	CF	B,I	500				Operation timeout	Timeout for negative termination	10...60000 ms	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.PosDlTmms.setVal	ING	INT32	SP	A	200				Event delay	Event delay of the intermediate position	0...10000 ms	Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBCSWI1.AdpPls.setVal	SPG	BOOLEAN	SP	A	1				Adaptive pulse	Stop in right position		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBXCBR1.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBXCBR1.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	CFG	CTRL.CBXCBR1.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\CBXCBR1	
CBXCBR1	I<->O CB(1)	I<->O CB(1)	VER	CTRL.CBCILO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	D					(Name plate)			

DCSXSWI1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

DCSXSWI1	I<->O DC(1)	I<->O DC(1)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI1\Inputs	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI1\Inputs	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	OUT	CTRL.DCSCSWI1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\DCSXSWI1\Outputs	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	OUT	CTRL.DCSCSWI1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\DCSXSWI1\Outputs	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	OUT	CTRL.DCSCSWI1.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\DCSXSWI1\Outputs	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	MON	CTRL.DCSCSWI1.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\DCSXSWI1\Monitored data	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSXSWI1.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSXSWI1.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSXSWI1.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSCSWI1.Pos.dU	DPC	Unicode255	DC	ED2,B	DCSXSWI1 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSCSWI1.Pos.d	DPC	VisString255 (64)	DC		DCSXSWI1 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	CFG	CTRL.DCSCSWI1.PosDlTmms.setVal	ING	INT32	SP	A	30000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\DCSXSWI1	
DCSXSWI1	I<->O DC(1)	I<->O DC(1)	VER	CTRL.DCSXSWI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

DCSXSWI2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI2\Inputs	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI2\Inputs	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	OUT	CTRL.DCSCSWI2.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\DCSXSWI2\Outputs	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	OUT	CTRL.DCSCSWI2.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\DCSXSWI2\Outputs	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	OUT	CTRL.DCSCSWI2.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\DCSXSWI2\Outputs	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	MON	CTRL.DCSCSWI2.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\DCSXSWI2\Monitored data	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSXSWI2.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\DCSXSWI2	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSXSWI2.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\DCSXSWI2	

DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSXSWI2.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\DCSXSWI2	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSCSWI2.Pos.dU	DPC	Unicode255	DC	ED2,B	DCSXSWI2 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI2	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSCSWI2.Pos.d	DPC	VisString255 (64)	DC		DCSXSWI2 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI2	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	CFG	CTRL.DCSCSWI2.PosDlTmms.setVal	ING	INT32	SP	A	30000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\DCSXSWI2	
DCSXSWI2	I<->O DC(2)	I<->O DC(2)	VER	CTRL.DCSXSWI2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

DCSXSWI3

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI3\Inputs	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\DCSXSWI3\Inputs	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	OUT	CTRL.DCSCSWI3.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\DCSXSWI3\Outputs	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	OUT	CTRL.DCSCSWI3.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\DCSXSWI3\Outputs	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	OUT	CTRL.DCSCSWI3.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\DCSXSWI3\Outputs	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	MON	CTRL.DCSCSWI3.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\DCSXSWI3\Monitored data	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSXSWI3.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSXSWI3.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSXSWI3.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSCSWI3.Pos.dU	DPC	Unicode255	DC	ED2,B	DCSXSWI3 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSCSWI3.Pos.d	DPC	VisString255 (64)	DC		DCSXSWI3 switch position				Identification	Control Object identification		Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	CFG	CTRL.DCSCSWI3.PosDlTmms.setVal	ING	INT32	SP	A	30000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\DCSXSWI3	
DCSXSWI3	I<->O DC(3)	I<->O DC(3)	VER	CTRL.DCSXSWI3.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

ESSXSWI1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation

ESSXSWI1	I<->O ES(1)	I<->O ES(1)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\ESSXSWI1\Inputs	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\ESSXSWI1\Inputs	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	OUT	CTRL.ESSCSWI1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\ESSXSWI1\Outputs	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	OUT	CTRL.ESSCSWI1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\ESSXSWI1\Outputs	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	OUT	CTRL.ESSCSWI1.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\ESSXSWI1\Outputs	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	MON	CTRL.ESSCSWI1.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\ESSXSWI1\Monitored data	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSXSWI1.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSXSWI1.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSXSWI1.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSCSWI1.Pos.dU	DPC	Unicode255	DC	ED2,B	ESSXSWI1 switch position				Identification	Control Object identification		Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSCSWI1.Pos.d	DPC	VisString255 (64)	DC		ESSXSWI1 switch position				Identification	Control Object identification		Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	CFG	CTRL.ESSCSWI1.PosDlTmms.setVal	ING	INT32	SP	A	30000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\ESSXSWI1	
ESSXSWI1	I<->O ES(1)	I<->O ES(1)	VER	CTRL.ESSXSWI1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

ESSXSWI2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	INP			BOOLEAN		B	0				POSOPEN	Signal for open position of apparatus from I/O		Monitoring\I/O status\Control\ESSXSWI2\Inputs	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	INP			BOOLEAN		B	0				POSCLOSE	Signal for close position of apparatus from I/O		Monitoring\I/O status\Control\ESSXSWI2\Inputs	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	OUT	CTRL.ESSCSWI2.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\ESSXSWI2\Outputs	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	OUT	CTRL.ESSCSWI2.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\ESSXSWI2\Outputs	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	OUT	CTRL.ESSCSWI2.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\ESSXSWI2\Outputs	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	MON	CTRL.ESSCSWI2.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\ESSXSWI2\Monitored data	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSXSWI2.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\ESSXSWI2	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSXSWI2.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\ESSXSWI2	

ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSXSWI2.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\ESSXSWI2	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSCSWI2.Pos.dU	DPC	Unicode255	DC	ED2,B	ESSXSWI2 switch position				Identification	Control Object identification		Configuration\Control\ESSXSWI2	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSCSWI2.Pos.d	DPC	VisString255 (64)	DC		ESSXSWI2 switch position				Identification	Control Object identification		Configuration\Control\ESSXSWI2	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	CFG	CTRL.ESSCSWI2.PosDlTmms.setVal	ING	INT32	SP	A	30000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\ESSXSWI2	
ESSXSWI2	I<->O ES(2)	I<->O ES(2)	VER	CTRL.ESSXSWI2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

DCXSWI1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP	CTRL.DCCILO1.EnaOpn.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_OPEN	Enables opening		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP	CTRL.DCCILO1.EnaCls.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_CLOSE	Enables closing		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP	CTRL.DCCILO1.ItlByps.stVal	SPS	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	ITL_BYPASS	Discards ENA_OPEN and ENA_CLOSE interlocking when TRUE		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP	CTRL.DCXSWI1.BlkOpn.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_OPEN	Blocks opening		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP	CTRL.DCXSWI1.BlkCls.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_CLOSE	Blocks closing		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP			BOOLEAN		B	0				AU_OPEN	Executes the command for open direction		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP			BOOLEAN		B	0				AU_CLOSE	Executes the command for close direction		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP			BOOLEAN		B	0				POSOPEN	Apparatus open position		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	INP			BOOLEAN		B	0				POSCLOSE	Apparatus close position		Monitoring\I/O status\Control\DCXSWI1\Inputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.Pos.stSeld	DPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	SELECTED	Object selected		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.OpOpn.general	ACT	BOOLEAN	ST	B					EXE_OP	Executes the command for open direction		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.OpCls.general	ACT	BOOLEAN	ST	B					EXE_CL	Executes the command for close direction		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\DCXSWI1\Outputs	

DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.OpnEna.stVal	SPS	BOOLEAN	ST	B					OPEN_ENAD	Opening is enabled based on the input status		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	OUT	CTRL.DCCSWI1.ClsEna.stVal	SPS	BOOLEAN	ST	B					CLOSE_ENAD	Closing is enabled based on the input status		Monitoring\I/O status\Control\DCXSWI1\Outputs	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CTR	CTRL.DCCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CTR	CTRL.DCCSWI1.Pos.SBOw.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CTR	CTRL.DCCSWI1.Pos.Oper.ctlVal	DPC	BOOLEAN	CO					MB,DN		(Switch, general)			
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CTR	CTRL.DCCSWI1.Pos.Cancel.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	MON	CTRL.DCCSWI1.Loc.stVal	SPS	BOOLEAN	ST			StatUrg	P,H			(Local operation)			
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	MON	CTRL.DCCSWI1.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\DCXSWI1\Monitored data	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation mode on/off	1=on; 5=off	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.pulseConfig.onDur	DPC	INT32U	CF	B,I	100				Pulse length	Open and close pulse length	10...60000 ms	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.ctlModel	DPC	Enum	CF	B,I	4				Control model	Select control model	0=status-only; 1=direct-with-normal-security; 4=sbo-with-enhanced-security	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.sboTimeout	DPC	INT32U	CF	B,I	30000				Select timeout	Select timeout in ms	10000...300000 ms	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.dU	DPC	Unicode255	DC	ED2,B	DCXSWI1 switch position				Identification	Control Object identification		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.d	DPC	VisString255 (64)	DC		DCXSWI1 switch position				Identification	Control Object identification		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.Pos.operTimeout	DPC	INT32U	CF	B,I	30000				Operation timeout	Timeout for negative termination	10...60000 ms	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.PosDlTmms.setVal	ING	INT32	SP	A	10000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCCSWI1.AdpPls.setVal	SPG	BOOLEAN	SP	A	1				Adaptive pulse	Stop in right position		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCXSWI1.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCXSWI1.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	CFG	CTRL.DCXSWI1.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\DCXSWI1	
DCXSWI1	I<->O DCC(1)	I<->O DCC(1)	VER	CTRL.DCCILO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

DCXSWI2

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP	CTRL.DCCILO2.EnaOpn.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_OPEN	Enables opening		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP	CTRL.DCCILO2.EnaCls.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_CLOSE	Enables closing		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP	CTRL.DCCILO2.ItlByps.stVal	SPS	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	ITL_BYPASS	Discards ENA_OPEN and ENA_CLOSE interlocking when TRUE		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP	CTRL.DCXSWI2.BlkOpn.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_OPEN	Blocks opening		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP	CTRL.DCXSWI2.BlkCls.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_CLOSE	Blocks closing		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP			BOOLEAN		B	0				AU_OPEN	Executes the command for open direction		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP			BOOLEAN		B	0				AU_CLOSE	Executes the command for close direction		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP			BOOLEAN		B	0				POSOPEN	Apparatus open position		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	INP			BOOLEAN		B	0				POSCLOSE	Apparatus close position		Monitoring\I/O status\Control\DCXSWI2\Inputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.Pos.stSeld	DPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	SELECTED	Object selected		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.OpOpn.general	ACT	BOOLEAN	ST	B					EXE_OP	Executes the command for open direction		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.OpCls.general	ACT	BOOLEAN	ST	B					EXE_CL	Executes the command for close direction		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.OpnEna.stVal	SPS	BOOLEAN	ST	B					OPEN_ENAD	Opening is enabled based on the input status		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	OUT	CTRL.DCCSWI2.ClsEna.stVal	SPS	BOOLEAN	ST	B					CLOSE_ENAD	Closing is enabled based on the input status		Monitoring\I/O status\Control\DCXSWI2\Outputs	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CTR	CTRL.DCCSWI2.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CTR	CTRL.DCCSWI2.Pos.SBOw.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CTR	CTRL.DCCSWI2.Pos.Oper.ctlVal	DPC	BOOLEAN	CO					MB,DN		(Switch, general)			
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CTR	CTRL.DCCSWI2.Pos.Cancel.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	MON	CTRL.DCCSWI2.Loc.stVal	SPS	BOOLEAN	ST			StatUrg	P,H			(Local operation)			

DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	MON	CTRL.DCCSWI2.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\DCXSWI2\Monitored data	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation mode on/off	1=on; 5=off	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.pulseConfig.onDur	DPC	INT32U	CF	B,I	100				Pulse length	Open and close pulse length	10...60000 ms	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.ctlModel	DPC	Enum	CF	B,I	4				Control model	Select control model	0=status-only; 1=direct-with-normal-security; 4=sbo-with-enhanced-security	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.sboTimeout	DPC	INT32U	CF	B,I	30000				Select timeout	Select timeout in ms	10000...300000 ms	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.dU	DPC	Unicode255	DC	ED2,B	DCXSWI2 switch position				Identification	Control Object identification		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.d	DPC	VisString255 (64)	DC		DCXSWI2 switch position				Identification	Control Object identification		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.Pos.operTimeout	DPC	INT32U	CF	B,I	30000				Operation timeout	Timeout for negative termination	10...60000 ms	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.PosDlTmms.setVal	ING	INT32	SP	A	10000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCCSWI2.AdpPls.setVal	SPG	BOOLEAN	SP	A	1				Adaptive pulse	Stop in right position		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCXSWI2.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCXSWI2.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	CFG	CTRL.DCXSWI2.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\DCXSWI2	
DCXSWI2	I<->O DCC(2)	I<->O DCC(2)	VER	CTRL.DCCILO2.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

ESXSWI1

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP	CTRL.ESCILO1.EnaOpn.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_OPEN	Enables opening		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP	CTRL.ESCILO1.EnaCls.stVal	SPS	BOOLEAN	ST	B	1	StatUrg	P,H	MB,DN,I3	ENA_CLOSE	Enables closing		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP	CTRL.ESCILO1.ItlByps.stVal	SPS	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	ITL_BYPASS	Discards ENA_OPEN and ENA_CLOSE interlocking when TRUE		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP	CTRL.ESXSWI1.BlkOpn.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_OPEN	Blocks opening		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP	CTRL.ESXSWI1.BlkCls.stVal	SPC	BOOLEAN	ST	B	0	StatUrg	P,H	MB,DN,I3	BLK_CLOSE	Blocks closing		Monitoring\I/O status\Control\ESXSWI1\Inputs	

ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP			BOOLEAN		B	0				AU_OPEN	Executes the command for open direction		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP			BOOLEAN		B	0				AU_CLOSE	Executes the command for close direction		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP			BOOLEAN		B	0				POSOPEN	Apparatus open position		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	INP			BOOLEAN		B	0				POSCLOSE	Apparatus close position		Monitoring\I/O status\Control\ESXSWI1\Inputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.Pos.stSeld	DPC	BOOLEAN	ST	B		StatUrg	P,H	MB,DN,I3	SELECTED	Object selected		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.OpOpn.general	ACT	BOOLEAN	ST	B					EXE_OP	Executes the command for open direction		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.OpCls.general	ACT	BOOLEAN	ST	B					EXE_CL	Executes the command for close direction		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.PosOpn.stVal	SPS	BOOLEAN	ST	B					OPENPOS	Apparatus open position		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.PosCls.stVal	SPS	BOOLEAN	ST	B					CLOSEPOS	Apparatus closed position		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.PosOk.stVal	SPS	BOOLEAN	ST	B					OKPOS	Apparatus position is ok		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.OpnEna.stVal	SPS	BOOLEAN	ST	B					OPEN_ENAD	Opening is enabled based on the input status		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	OUT	CTRL.ESCSWI1.ClsEna.stVal	SPS	BOOLEAN	ST	B					CLOSE_ENAD	Closing is enabled based on the input status		Monitoring\I/O status\Control\ESXSWI1\Outputs	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CTR	CTRL.ESCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CTR	CTRL.ESCSWI1.Pos.SBOw.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CTR	CTRL.ESCSWI1.Pos.Oper.ctlVal	DPC	BOOLEAN	CO					MB,DN		(Switch, general)			
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CTR	CTRL.ESCSWI1.Pos.Cancel.ctlVal	DPC	BOOLEAN	CO							(Switch, general)			
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	MON	CTRL.ESCSWI1.Loc.stVal	SPS	BOOLEAN	ST			StatUrg	P,H			(Local operation)			
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	MON	CTRL.ESCSWI1.Pos.stVal	DPC	Dbpos	ST	B		StatUrg	P,H	MB,DN,I3	POSITION	Apparatus position indication	0=intermediate; 1=open; 2=closed; 3=faulty	Monitoring\I/O status\Control\ESXSWI1\Monitored data	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Operation mode on/off	1=on; 5=off	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.OpCntRs.Oper.ctlVal	INC	INT32	CO	A	0				Operation counter	Breaker operation cycles	0...10000	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.pulseConfig.onDur	DPC	INT32U	CF	B,I	100				Pulse length	Open and close pulse length	10...60000 ms	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.ctlModel	DPC	Enum	CF	B,I	4				Control model	Select control model	0=status-only; 1=direct-with-normal-security; 4=sbo-with-enhanced-security	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.sboTimeout	DPC	INT32U	CF	B,I	30000				Select timeout	Select timeout in ms	10000...300000 ms	Configuration\Control\ESXSWI1	

ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.dU	DPC	Unicode255	DC	ED2,B	ESXSWI1 switch position				Identification	Control Object identification		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.d	DPC	VisString255 (64)	DC		ESXSWI1 switch position				Identification	Control Object identification		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.Pos.operTimeout	DPC	INT32U	CF	B,I	30000				Operation timeout	Timeout for negative termination	10...60000 ms	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.PosDlTmms.setVal	ING	INT32	SP	A	10000				Event delay	Event delay of the intermediate position	0...60000 ms	Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESCSWI1.AdpPls.setVal	SPG	BOOLEAN	SP	A	1				Adaptive pulse	Stop in right position		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESXSWI1.EEName.vendor	DPL	VisString255 (20)	DC	A	0				Vendor	External equipment vendor		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESXSWI1.EEName.serNum	DPL	VisString255 (20)	DC	A	0				Serial number	External equipment serial number		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	CFG	CTRL.ESXSWI1.EEName.model	DPL	VisString255 (20)	DC	A	0				Model	External equipment model		Configuration\Control\ESXSWI1	
ESXSWI1	I<->O ESC(1)	I<->O ESC(1)	VER	CTRL.ESCILO1.NamPlt.swRev	LPL	VisString255 (20)	DC	ED1	C					(Name plate)			

DR LLN0: Disturbance recorder

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Binary ch 1			INP	DR.RBDR1.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 2			INP	DR.RBDR2.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 3			INP	DR.RBDR3.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 4			INP	DR.RBDR4.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 5			INP	DR.RBDR5.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 6			INP	DR.RBDR6.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 7			INP	DR.RBDR7.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 8			INP	DR.RBDR8.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 9			INP	DR.RBDR9.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 10			INP	DR.RBDR10.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 11			INP	DR.RBDR11.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 12			INP	DR.RBDR12.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 13			INP	DR.RBDR13.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 14			INP	DR.RBDR14.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 15			INP	DR.RBDR15.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 16			INP	DR.RBDR16.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 17			INP	DR.RBDR17.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 18			INP	DR.RBDR18.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 19			INP	DR.RBDR19.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 20			INP	DR.RBDR20.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			
Binary ch 21			INP	DR.RBDR21.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)			

Binary ch 22			INP	DR.RBDR22.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 23			INP	DR.RBDR23.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 24			INP	DR.RBDR24.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 25			INP	DR.RBDR25.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 26			INP	DR.RBDR26.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 27			INP	DR.RBDR27.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 28			INP	DR.RBDR28.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 29			INP	DR.RBDR29.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 30			INP	DR.RBDR30.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 31			INP	DR.RBDR31.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 32			INP	DR.RBDR32.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 33			INP	DR.RBDR33.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 34			INP	DR.RBDR34.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 35			INP	DR.RBDR35.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 36			INP	DR.RBDR36.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 37			INP	DR.RBDR37.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 38			INP	DR.RBDR38.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 39			INP	DR.RBDR39.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 40			INP	DR.RBDR40.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 41			INP	DR.RBDR41.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 42			INP	DR.RBDR42.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 43			INP	DR.RBDR43.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 44			INP	DR.RBDR44.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 45			INP	DR.RBDR45.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 46			INP	DR.RBDR46.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 47			INP	DR.RBDR47.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 48			INP	DR.RBDR48.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 49			INP	DR.RBDR49.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 50			INP	DR.RBDR50.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 51			INP	DR.RBDR51.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 52			INP	DR.RBDR52.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 53			INP	DR.RBDR53.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 54			INP	DR.RBDR54.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 55			INP	DR.RBDR55.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 56			INP	DR.RBDR56.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 57			INP	DR.RBDR57.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 58			INP	DR.RBDR58.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 59			INP	DR.RBDR59.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 60			INP	DR.RBDR60.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 61			INP	DR.RBDR61.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 62			INP	DR.RBDR62.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				

Binary ch 63			INP	DR.RBDR63.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Binary ch 64			INP	DR.RBDR64.BinInSt.stVal	SPS	BOOLEAN	ST		0					(input)				
Disturbance recorder			OUT	DR.RDRE1.RcdStr.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Recording started)				
Disturbance recorder			CTR	DR.RDRE1.RcdTrg.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Trig recording	Manual trigger for the disturbance recorder	0=Cancel; 1=Trig	Disturbance records\Disturbance records	
Disturbance recorder			CTR	DR.RDRE1.MemClr.Oper.ctlVal	SPC	BOOLEAN	CO	B	0			MB,DN,I3	Disturbance records	Clear all disturbance recordings in the memory	0=Cancel; 1=Clear	Clear\Clear	
Disturbance recorder			MON	DR.RDRE1.RcdMade.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Recording made)				
Disturbance recorder			MON	DR.RDRE1.RcdDltInd.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Recording deleted)				
Disturbance recorder			MON	DR.RDRE1.MemFullSt.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Memory full)				
Disturbance recorder			MON	DR.RDRE1.OvWrRcdInd.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Overwrite of rec.)				
Disturbance recorder			MON	DR.RDRE1.PerTrgInd.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Periodic triggering)				
Disturbance recorder			MON	DR.RDRE1.ManTrgInd.stVal	SPS	BOOLEAN	ST			StatDR	P	MB,DN		(Manual triggering)				
DR LLN0			CFG	DR.LLN0.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Disturbance recorder on / off	1=on; 5=off	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.PerTrgTms.setVal	ING	INT32	SP	A	0				Periodic trig time	Time between periodic triggerings in seconds	0...604800 s	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.ExclTmms.setVal	ING	INT32	SP	A	0				Exclusion time	Time how long triggerings for the same reason are ignored in milliseconds	0...1000000 ms	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.RcdMod.setVal	ENG	Enum	SP	A	2				Operation mode	Saturation / overwrite	1=Overwrite; 2=Saturation	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.PreTrgLen.setVal	ING	INT32	SP	B	50				Pre-trg length	Length of recording preceding the triggering in percent	0...100 %	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.RcdLen.setVal	ING	INT32	SP	B,I	50				Record length	Record length in fundamental cycles	10...500 cycles	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.StoRteSel.setVal	ENG	Enum	SP	A,I	32				Storage rate	Storage rate for waveform recordings in samples per cycle	8=8 samples / cycle; 16=16 samples / cycle; 32=32 samples / cycle	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.StoModPer.setVal	ENG	Enum	SP	A,I	0				Stor. mode periodic	Storage mode selection (waveform / trend) for periodic trigger	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\General	
Disturbance recorder			CFG	DR.RDRE1.StoModMan.setVal	ENG	Enum	SP	A,I	0				Stor. mode manual	Storage mode selection (waveform / trend) for manual trigger	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\General	
Binary ch 1			CFG	DR.RBDR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 1	

Binary ch 1			CFG	DR.RBDR1.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 1	
Binary ch 1			CFG	DR.RBDR1.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 1	
Binary ch 1			CFG	DR.RBDR1.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 1 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 1	
Binary ch 2			CFG	DR.RBDR2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 2	
Binary ch 2			CFG	DR.RBDR2.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 2	
Binary ch 2			CFG	DR.RBDR2.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 2	
Binary ch 2			CFG	DR.RBDR2.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 2 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 2	
Binary ch 3			CFG	DR.RBDR3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 3	
Binary ch 3			CFG	DR.RBDR3.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 3	
Binary ch 3			CFG	DR.RBDR3.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 3	
Binary ch 3			CFG	DR.RBDR3.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 3 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 3	
Binary ch 4			CFG	DR.RBDR4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 4	
Binary ch 4			CFG	DR.RBDR4.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 4	
Binary ch 4			CFG	DR.RBDR4.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 4	
Binary ch 4			CFG	DR.RBDR4.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 4 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 4	
Binary ch 5			CFG	DR.RBDR5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 5	

Binary ch 5			CFG	DR.RBDR5.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 5	
Binary ch 5			CFG	DR.RBDR5.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 5	
Binary ch 5			CFG	DR.RBDR5.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 5 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 5	
Binary ch 6			CFG	DR.RBDR6.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 6	
Binary ch 6			CFG	DR.RBDR6.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 6	
Binary ch 6			CFG	DR.RBDR6.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 6	
Binary ch 6			CFG	DR.RBDR6.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 6 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 6	
Binary ch 7			CFG	DR.RBDR7.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 7	
Binary ch 7			CFG	DR.RBDR7.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 7	
Binary ch 7			CFG	DR.RBDR7.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 7	
Binary ch 7			CFG	DR.RBDR7.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 7 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 7	
Binary ch 8			CFG	DR.RBDR8.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 8	
Binary ch 8			CFG	DR.RBDR8.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 8	
Binary ch 8			CFG	DR.RBDR8.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 8	
Binary ch 8			CFG	DR.RBDR8.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 8 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 8	
Binary ch 9			CFG	DR.RBDR9.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 9	

Binary ch 9			CFG	DR.RBDR9.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 9	
Binary ch 9			CFG	DR.RBDR9.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 9	
Binary ch 9			CFG	DR.RBDR9.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 9 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 9	
Binary ch 10			CFG	DR.RBDR10.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 10	
Binary ch 10			CFG	DR.RBDR10.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 10	
Binary ch 10			CFG	DR.RBDR10.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 10	
Binary ch 10			CFG	DR.RBDR10.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 10 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 10	
Binary ch 11			CFG	DR.RBDR11.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 11	
Binary ch 11			CFG	DR.RBDR11.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 11	
Binary ch 11			CFG	DR.RBDR11.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 11	
Binary ch 11			CFG	DR.RBDR11.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 11 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 11	
Binary ch 12			CFG	DR.RBDR12.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 12	
Binary ch 12			CFG	DR.RBDR12.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 12	
Binary ch 12			CFG	DR.RBDR12.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 12	
Binary ch 12			CFG	DR.RBDR12.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 12 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 12	
Binary ch 13			CFG	DR.RBDR13.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 13	

Binary ch 13			CFG	DR.RBDR13.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 13	
Binary ch 13			CFG	DR.RBDR13.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 13	
Binary ch 13			CFG	DR.RBDR13.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 13 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 13	
Binary ch 14			CFG	DR.RBDR14.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 14	
Binary ch 14			CFG	DR.RBDR14.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 14	
Binary ch 14			CFG	DR.RBDR14.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 14	
Binary ch 14			CFG	DR.RBDR14.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 14 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 14	
Binary ch 15			CFG	DR.RBDR15.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 15	
Binary ch 15			CFG	DR.RBDR15.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 15	
Binary ch 15			CFG	DR.RBDR15.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 15	
Binary ch 15			CFG	DR.RBDR15.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 15 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 15	
Binary ch 16			CFG	DR.RBDR16.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 16	
Binary ch 16			CFG	DR.RBDR16.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 16	
Binary ch 16			CFG	DR.RBDR16.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 16	
Binary ch 16			CFG	DR.RBDR16.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 16 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 16	
Binary ch 17			CFG	DR.RBDR17.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 17	

Binary ch 17			CFG	DR.RBDR17.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 17	
Binary ch 17			CFG	DR.RBDR17.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 17	
Binary ch 17			CFG	DR.RBDR17.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 17 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 17	
Binary ch 18			CFG	DR.RBDR18.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 18	
Binary ch 18			CFG	DR.RBDR18.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 18	
Binary ch 18			CFG	DR.RBDR18.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 18	
Binary ch 18			CFG	DR.RBDR18.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 18 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 18	
Binary ch 19			CFG	DR.RBDR19.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 19	
Binary ch 19			CFG	DR.RBDR19.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 19	
Binary ch 19			CFG	DR.RBDR19.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 19	
Binary ch 19			CFG	DR.RBDR19.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 19 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 19	
Binary ch 20			CFG	DR.RBDR20.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 20	
Binary ch 20			CFG	DR.RBDR20.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 20	
Binary ch 20			CFG	DR.RBDR20.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 20	
Binary ch 20			CFG	DR.RBDR20.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 20 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 20	
Binary ch 21			CFG	DR.RBDR21.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 21	

Binary ch 21			CFG	DR.RBDR21.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 21	
Binary ch 21			CFG	DR.RBDR21.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 21	
Binary ch 21			CFG	DR.RBDR21.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 21 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 21	
Binary ch 22			CFG	DR.RBDR22.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 22	
Binary ch 22			CFG	DR.RBDR22.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 22	
Binary ch 22			CFG	DR.RBDR22.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 22	
Binary ch 22			CFG	DR.RBDR22.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 22 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 22	
Binary ch 23			CFG	DR.RBDR23.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 23	
Binary ch 23			CFG	DR.RBDR23.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 23	
Binary ch 23			CFG	DR.RBDR23.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 23	
Binary ch 23			CFG	DR.RBDR23.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 23 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 23	
Binary ch 24			CFG	DR.RBDR24.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 24	
Binary ch 24			CFG	DR.RBDR24.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 24	
Binary ch 24			CFG	DR.RBDR24.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 24	
Binary ch 24			CFG	DR.RBDR24.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 24 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 24	
Binary ch 25			CFG	DR.RBDR25.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 25	

Binary ch 25			CFG	DR.RBDR25.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 25	
Binary ch 25			CFG	DR.RBDR25.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 25	
Binary ch 25			CFG	DR.RBDR25.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 25 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 25	
Binary ch 26			CFG	DR.RBDR26.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 26	
Binary ch 26			CFG	DR.RBDR26.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 26	
Binary ch 26			CFG	DR.RBDR26.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 26	
Binary ch 26			CFG	DR.RBDR26.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 26 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 26	
Binary ch 27			CFG	DR.RBDR27.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 27	
Binary ch 27			CFG	DR.RBDR27.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 27	
Binary ch 27			CFG	DR.RBDR27.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 27	
Binary ch 27			CFG	DR.RBDR27.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 27 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 27	
Binary ch 28			CFG	DR.RBDR28.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 28	
Binary ch 28			CFG	DR.RBDR28.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 28	
Binary ch 28			CFG	DR.RBDR28.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 28	
Binary ch 28			CFG	DR.RBDR28.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 28 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 28	
Binary ch 29			CFG	DR.RBDR29.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 29	

Binary ch 29			CFG	DR.RBDR29.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 29	
Binary ch 29			CFG	DR.RBDR29.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 29	
Binary ch 29			CFG	DR.RBDR29.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 29 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 29	
Binary ch 30			CFG	DR.RBDR30.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 30	
Binary ch 30			CFG	DR.RBDR30.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 30	
Binary ch 30			CFG	DR.RBDR30.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 30	
Binary ch 30			CFG	DR.RBDR30.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 30 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 30	
Binary ch 31			CFG	DR.RBDR31.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 31	
Binary ch 31			CFG	DR.RBDR31.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 31	
Binary ch 31			CFG	DR.RBDR31.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 31	
Binary ch 31			CFG	DR.RBDR31.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 31 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 31	
Binary ch 32			CFG	DR.RBDR32.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 32	
Binary ch 32			CFG	DR.RBDR32.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 32	
Binary ch 32			CFG	DR.RBDR32.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 32	
Binary ch 32			CFG	DR.RBDR32.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 32 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 32	
Binary ch 33			CFG	DR.RBDR33.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 33	

Binary ch 33			CFG	DR.RBDR33.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 33	
Binary ch 33			CFG	DR.RBDR33.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 33	
Binary ch 33			CFG	DR.RBDR33.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 33 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 33	
Binary ch 34			CFG	DR.RBDR34.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 34	
Binary ch 34			CFG	DR.RBDR34.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 34	
Binary ch 34			CFG	DR.RBDR34.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 34	
Binary ch 34			CFG	DR.RBDR34.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 34 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 34	
Binary ch 35			CFG	DR.RBDR35.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 35	
Binary ch 35			CFG	DR.RBDR35.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 35	
Binary ch 35			CFG	DR.RBDR35.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 35	
Binary ch 35			CFG	DR.RBDR35.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 35 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 35	
Binary ch 36			CFG	DR.RBDR36.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 36	
Binary ch 36			CFG	DR.RBDR36.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 36	
Binary ch 36			CFG	DR.RBDR36.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 36	
Binary ch 36			CFG	DR.RBDR36.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 36 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 36	
Binary ch 37			CFG	DR.RBDR37.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 37	

Binary ch 37			CFG	DR.RBDR37.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 37	
Binary ch 37			CFG	DR.RBDR37.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 37	
Binary ch 37			CFG	DR.RBDR37.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 37 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 37	
Binary ch 38			CFG	DR.RBDR38.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 38	
Binary ch 38			CFG	DR.RBDR38.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 38	
Binary ch 38			CFG	DR.RBDR38.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 38	
Binary ch 38			CFG	DR.RBDR38.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 38 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 38	
Binary ch 39			CFG	DR.RBDR39.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 39	
Binary ch 39			CFG	DR.RBDR39.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 39	
Binary ch 39			CFG	DR.RBDR39.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 39	
Binary ch 39			CFG	DR.RBDR39.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 39 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 39	
Binary ch 40			CFG	DR.RBDR40.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 40	
Binary ch 40			CFG	DR.RBDR40.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 40	
Binary ch 40			CFG	DR.RBDR40.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 40	
Binary ch 40			CFG	DR.RBDR40.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 40 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 40	
Binary ch 41			CFG	DR.RBDR41.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 41	

Binary ch 41			CFG	DR.RBDR41.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 41	
Binary ch 41			CFG	DR.RBDR41.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 41	
Binary ch 41			CFG	DR.RBDR41.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 41 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 41	
Binary ch 42			CFG	DR.RBDR42.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 42	
Binary ch 42			CFG	DR.RBDR42.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 42	
Binary ch 42			CFG	DR.RBDR42.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 42	
Binary ch 42			CFG	DR.RBDR42.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 42 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 42	
Binary ch 43			CFG	DR.RBDR43.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 43	
Binary ch 43			CFG	DR.RBDR43.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 43	
Binary ch 43			CFG	DR.RBDR43.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 43	
Binary ch 43			CFG	DR.RBDR43.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 43 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 43	
Binary ch 44			CFG	DR.RBDR44.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 44	
Binary ch 44			CFG	DR.RBDR44.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 44	
Binary ch 44			CFG	DR.RBDR44.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 44	
Binary ch 44			CFG	DR.RBDR44.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 44 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 44	
Binary ch 45			CFG	DR.RBDR45.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 45	

Binary ch 45			CFG	DR.RBDR45.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 45	
Binary ch 45			CFG	DR.RBDR45.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 45	
Binary ch 45			CFG	DR.RBDR45.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 45 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 45	
Binary ch 46			CFG	DR.RBDR46.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 46	
Binary ch 46			CFG	DR.RBDR46.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 46	
Binary ch 46			CFG	DR.RBDR46.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 46	
Binary ch 46			CFG	DR.RBDR46.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 46 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 46	
Binary ch 47			CFG	DR.RBDR47.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 47	
Binary ch 47			CFG	DR.RBDR47.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 47	
Binary ch 47			CFG	DR.RBDR47.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 47	
Binary ch 47			CFG	DR.RBDR47.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 47 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 47	
Binary ch 48			CFG	DR.RBDR48.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 48	
Binary ch 48			CFG	DR.RBDR48.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 48	
Binary ch 48			CFG	DR.RBDR48.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 48	
Binary ch 48			CFG	DR.RBDR48.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 48 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 48	
Binary ch 49			CFG	DR.RBDR49.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 49	

Binary ch 49			CFG	DR.RBDR49.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 49	
Binary ch 49			CFG	DR.RBDR49.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 49	
Binary ch 49			CFG	DR.RBDR49.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 49 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 49	
Binary ch 50			CFG	DR.RBDR50.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 50	
Binary ch 50			CFG	DR.RBDR50.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 50	
Binary ch 50			CFG	DR.RBDR50.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 50	
Binary ch 50			CFG	DR.RBDR50.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 50 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 50	
Binary ch 51			CFG	DR.RBDR51.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 51	
Binary ch 51			CFG	DR.RBDR51.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 51	
Binary ch 51			CFG	DR.RBDR51.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 51	
Binary ch 51			CFG	DR.RBDR51.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 51 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 51	
Binary ch 52			CFG	DR.RBDR52.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 52	
Binary ch 52			CFG	DR.RBDR52.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 52	
Binary ch 52			CFG	DR.RBDR52.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 52	
Binary ch 52			CFG	DR.RBDR52.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 52 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 52	
Binary ch 53			CFG	DR.RBDR53.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 53	

Binary ch 53			CFG	DR.RBDR53.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 53	
Binary ch 53			CFG	DR.RBDR53.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 53	
Binary ch 53			CFG	DR.RBDR53.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 53 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 53	
Binary ch 54			CFG	DR.RBDR54.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 54	
Binary ch 54			CFG	DR.RBDR54.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 54	
Binary ch 54			CFG	DR.RBDR54.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 54	
Binary ch 54			CFG	DR.RBDR54.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 54 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 54	
Binary ch 55			CFG	DR.RBDR55.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 55	
Binary ch 55			CFG	DR.RBDR55.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 55	
Binary ch 55			CFG	DR.RBDR55.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 55	
Binary ch 55			CFG	DR.RBDR55.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 55 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 55	
Binary ch 56			CFG	DR.RBDR56.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 56	
Binary ch 56			CFG	DR.RBDR56.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 56	
Binary ch 56			CFG	DR.RBDR56.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 56	
Binary ch 56			CFG	DR.RBDR56.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 56 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 56	
Binary ch 57			CFG	DR.RBDR57.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 57	

Binary ch 57			CFG	DR.RBDR57.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 57	
Binary ch 57			CFG	DR.RBDR57.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 57	
Binary ch 57			CFG	DR.RBDR57.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 57 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 57	
Binary ch 58			CFG	DR.RBDR58.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 58	
Binary ch 58			CFG	DR.RBDR58.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 58	
Binary ch 58			CFG	DR.RBDR58.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 58	
Binary ch 58			CFG	DR.RBDR58.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 58 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 58	
Binary ch 59			CFG	DR.RBDR59.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 59	
Binary ch 59			CFG	DR.RBDR59.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 59	
Binary ch 59			CFG	DR.RBDR59.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 59	
Binary ch 59			CFG	DR.RBDR59.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 59 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 59	
Binary ch 60			CFG	DR.RBDR60.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 60	
Binary ch 60			CFG	DR.RBDR60.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 60	
Binary ch 60			CFG	DR.RBDR60.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 60	
Binary ch 60			CFG	DR.RBDR60.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 60 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 60	
Binary ch 61			CFG	DR.RBDR61.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 61	

Binary ch 61			CFG	DR.RBDR61.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 61	
Binary ch 61			CFG	DR.RBDR61.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 61	
Binary ch 61			CFG	DR.RBDR61.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 61 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 61	
Binary ch 62			CFG	DR.RBDR62.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 62	
Binary ch 62			CFG	DR.RBDR62.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 62	
Binary ch 62			CFG	DR.RBDR62.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 62	
Binary ch 62			CFG	DR.RBDR62.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 62 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 62	
Binary ch 63			CFG	DR.RBDR63.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 63	
Binary ch 63			CFG	DR.RBDR63.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 63	
Binary ch 63			CFG	DR.RBDR63.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 63	
Binary ch 63			CFG	DR.RBDR63.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 63 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 63	
Binary ch 64			CFG	DR.RBDR64.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	5				Operation	Binary channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Binary channel 64	
Binary ch 64			CFG	DR.RBDR64.LevMod.setVal	ENG	Enum	SP	B,I	1				Level trigger mode	rising / falling / both / trigger off	1=Positive or Rising; 2=Negative or Falling; 3=Both; 4=Level trigger off	Configuration\Disturbance recorder\Channel settings\Binary channel 64	
Binary ch 64			CFG	DR.RBDR64.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Binary channel 64	
Binary ch 64			CFG	DR.RBDR64.BinInSt.d	SPS	VisString255 (64)	DC	A	Binary ch 64 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Binary channel 64	
Analog ch 1			CFG	DR.RADR1.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 1	

Analog ch 1			CFG	DR.RADR1.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 1	
Analog ch 1			CFG	DR.RADR1.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 1	
Analog ch 1			CFG	DR.RADR1.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 1	
Analog ch 1			CFG	DR.RADR1.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 1 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 1	
Analog ch 1			CFG	DR.RADR1.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 1	
Analog ch 2			CFG	DR.RADR2.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 2			CFG	DR.RADR2.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 2			CFG	DR.RADR2.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 2			CFG	DR.RADR2.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 2			CFG	DR.RADR2.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 2 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 2			CFG	DR.RADR2.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 2	
Analog ch 3			CFG	DR.RADR3.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 3	
Analog ch 3			CFG	DR.RADR3.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 3	
Analog ch 3			CFG	DR.RADR3.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 3	
Analog ch 3			CFG	DR.RADR3.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 3	

Analog ch 3			CFG	DR.RADR3.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 3 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 3	
Analog ch 3			CFG	DR.RADR3.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 3	
Analog ch 4			CFG	DR.RADR4.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 4			CFG	DR.RADR4.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 4			CFG	DR.RADR4.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 4			CFG	DR.RADR4.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 4			CFG	DR.RADR4.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 4 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 4			CFG	DR.RADR4.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 4	
Analog ch 5			CFG	DR.RADR5.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 5			CFG	DR.RADR5.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 5			CFG	DR.RADR5.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 5			CFG	DR.RADR5.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 5			CFG	DR.RADR5.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 5 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 5			CFG	DR.RADR5.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 5	
Analog ch 6			CFG	DR.RADR6.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 6	
Analog ch 6			CFG	DR.RADR6.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 6	

Analog ch 6			CFG	DR.RADR6.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 6	
Analog ch 6			CFG	DR.RADR6.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 6	
Analog ch 6			CFG	DR.RADR6.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 6 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 6	
Analog ch 6			CFG	DR.RADR6.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 6	
Analog ch 7			CFG	DR.RADR7.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 7			CFG	DR.RADR7.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 7			CFG	DR.RADR7.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 7			CFG	DR.RADR7.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 7			CFG	DR.RADR7.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 7 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 7			CFG	DR.RADR7.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 7	
Analog ch 8			CFG	DR.RADR8.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 8	
Analog ch 8			CFG	DR.RADR8.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 8	
Analog ch 8			CFG	DR.RADR8.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 8	
Analog ch 8			CFG	DR.RADR8.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 8	
Analog ch 8			CFG	DR.RADR8.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 8 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 8	

Analog ch 8			CFG	DR.RADR8.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 8	
Analog ch 9			CFG	DR.RADR9.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 9			CFG	DR.RADR9.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 9			CFG	DR.RADR9.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 9			CFG	DR.RADR9.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 9			CFG	DR.RADR9.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 9 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 9			CFG	DR.RADR9.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 9	
Analog ch 10			CFG	DR.RADR10.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 10			CFG	DR.RADR10.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 10			CFG	DR.RADR10.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 10			CFG	DR.RADR10.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 10			CFG	DR.RADR10.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 10 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 10			CFG	DR.RADR10.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 10	
Analog ch 11			CFG	DR.RADR11.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 11	
Analog ch 11			CFG	DR.RADR11.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 11	
Analog ch 11			CFG	DR.RADR11.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 11	

Analog ch 11			CFG	DR.RADR11.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 11	
Analog ch 11			CFG	DR.RADR11.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 11 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 11	
Analog ch 11			CFG	DR.RADR11.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 11	
Analog ch 12			CFG	DR.RADR12.Mod.Oper.ctlVal	ENC	Enum	CO	B,I	1				Operation	Analog channel on / off	1=on; 5=off	Configuration\Disturbance recorder\Channel settings\Analog channel 12	
Analog ch 12			CFG	DR.RADR12.HiTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	10.00				High trigger level	Over limit	0.00...60.00	Configuration\Disturbance recorder\Channel settings\Analog channel 12	
Analog ch 12			CFG	DR.RADR12.LoTrgLev.setMag.f	ASG	FLOAT32	SP	B,I	0.00				Low trigger level	Under limit	0.00...2.00	Configuration\Disturbance recorder\Channel settings\Analog channel 12	
Analog ch 12			CFG	DR.RADR12.ChSigSel.setVal	ENG	Enum	SP	B,I	0				Channel selection	Select a signal, which will be recorded by this channel	0=Disabled; 1=Io; 2=IL1; 3=IL2; 4=IL3; 5=IoB; 6=IL1B; 7=IL2B; 8=IL3B; 9=Uo; 10=U1; 11=U2; 12=U3; 17=CIo; 18=SI1; 19=SI2; 20=SU0; 21=SU1; 22=SU2; 23=CIoB; 24=SI1B; 25=SI2B	Configuration\Disturbance recorder\Channel settings\Analog channel 12	
Analog ch 12			CFG	DR.RADR12.ChSigSel.d	ENG	VisString255 (64)	DC	B,I	Analog ch 12 input				Channel id text	Channel identifier text		Configuration\Disturbance recorder\Channel settings\Analog channel 12	
Analog ch 12			CFG	DR.RADR12.StoMod.setVal	ENG	Enum	SP	A,I	0				Storage mode	Storage mode selection (waveform / trend)	0=Waveform; 1=Trend / cycle	Configuration\Disturbance recorder\Channel settings\Analog channel 12	
DR LLN0			VER	DR.LLN0.NamPlt.swRev	LPL	VisString255 (20)	DC		G					(Name plate)			
DR LLN0			VER	DR.LLN0.NamPlt.ldNs	LPL	VisString255 (20)	EX		IEC 61850-7-4:2007 IEC 61850-7-4:2003					(Name plate)			

Std conformance: SMVSENDER enable

IEC 61850	IEC 60617	ANSI	Category	IECName	CDC	Type	FC	Access	Default	Dataset	Event	CMT	Parameter name	Parameter desc	Parameter range	Menu path	Channel relation
Std conformance			MON	MU01.I01ATCTR1.Amp.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.I01BTCTR2.Amp.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.I01CTCTR3.Amp.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.I01NTCTR4.Amp.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.U01ATVTR1.Vol.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.U01BTVTR2.Vol.instMag.i	SAV	INT32	MX							()			
Std conformance			MON	MU01.U01CTVTR3.Vol.instMag.i	SAV	INT32	MX							()			

Std conformance			MON	MU01.U01NTVTR4.Vol.instMag.i	SAV	INT32	MX							()			
Std conformance			CFG	MU01.LLN0.Mod.Oper.ctlVal	ENC	Enum	CO	B,H,C,I	1				Operation	Operation	1=on; 5=off	Configuration\Communication\Ethernet\SMVSENDER	
Std conformance			VER	MU01.LLN0.NamPlt.swRev	LPL	VisString255 (20)	DC		A1					(NamPlt)			
Std conformance			VER	MU01.LLN0.NamPlt.ldNs	LPL	VisString255 (20)	EX		IEC 61850-7-4:2007 IEC 61850-7-4:2007A					(NamPlt)			