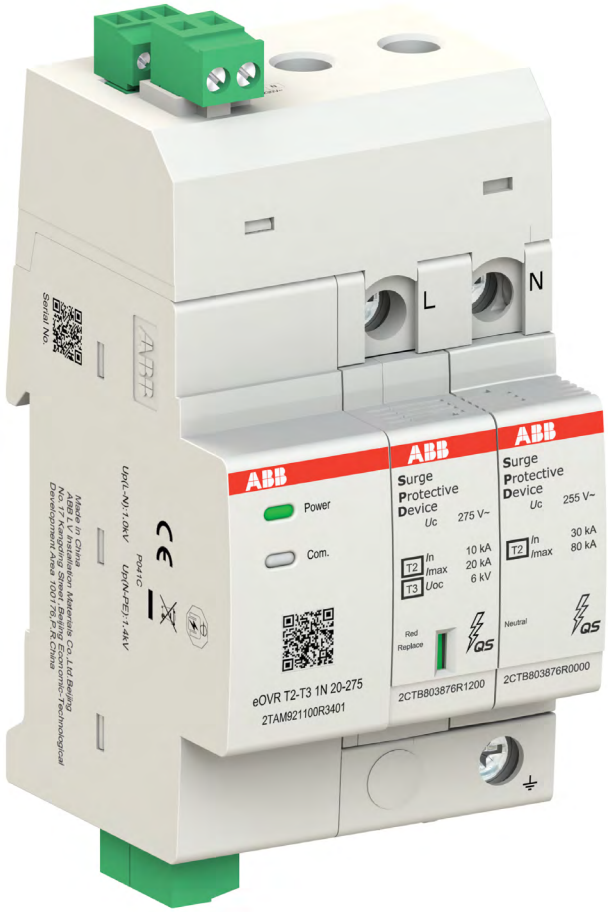
CATALOG

Digital SPDs eOVR

Safeguarding system uptime, remotely



- Predictive maintenance
- Access real-time data
- Guaranteed continuous operation
- Customizable dashboard and alarm setup

The eOVR range of digital SPDs does not only protect equipment from surges and transient overvoltages. In addition, device data can be retrieved and visualized in a dashboard through the integration into the System pro M compact® InSite system. This new level of connectivity enables predictive maintenance and remote monitoring in real time.

Table of contents

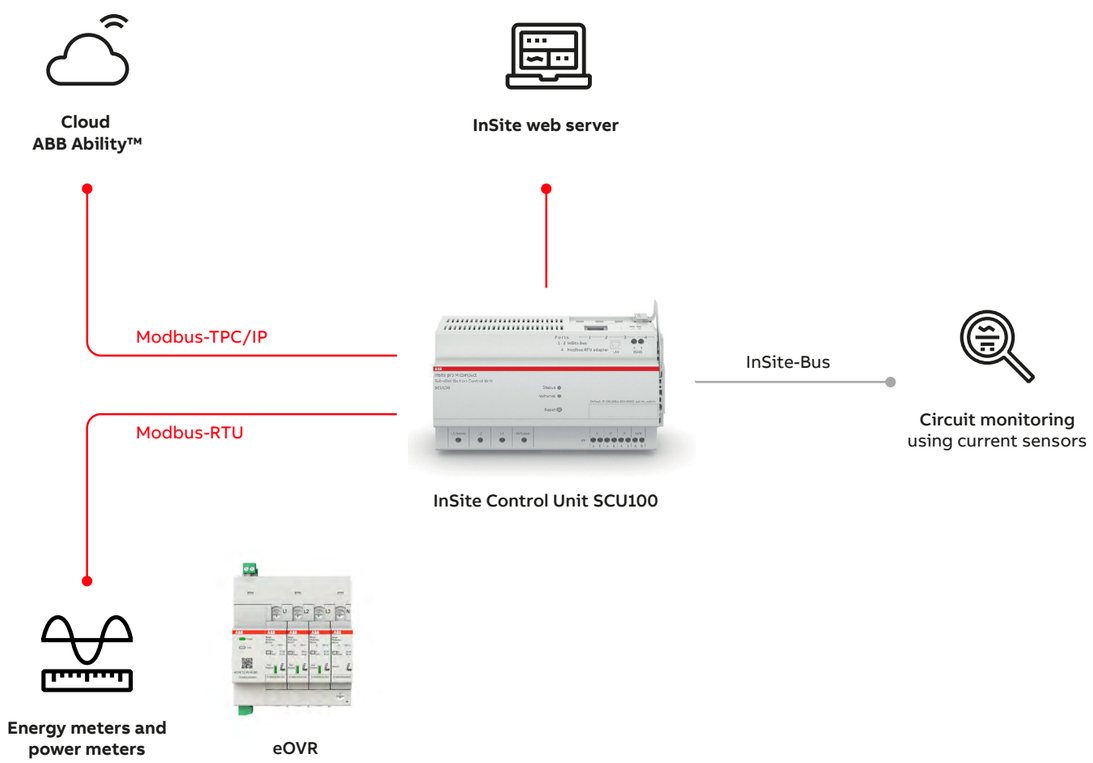
Digital SPDs eOVR
Safeguarding system uptime, remotely

The eOVR range of surge protective devices (SPDs) has been equipped with a digital component that enables connection to the ABB System pro M compact® InSite range.

Through this connection, various types of product information can be derived and accessed via the InSite web server, ABB Ability™ Energy & Asset Manager or any third-party system. Based on the real-time data that can be accessed remotely, insights into date, time, and surge level can be displayed, as well as monitoring of nominal voltage level, ambient temperature, and the percentage of end-of-life of the line protection.

This can greatly improve system and equipment protection and availability, as SPD disconnection due to upstream tripping, network issues, or earthing lines will show up in the dashboard immediately.

In addition, predictive maintenance is enabled through app or email notifications and replacement order information when an SPD cartridge reaches a critical level, that can be predefined in the system, to keep the equipment protected without interruptions.



Real-time monitoring
and predictive maintenance
of eOVR through integration
into the System pro M compact®
InSite range

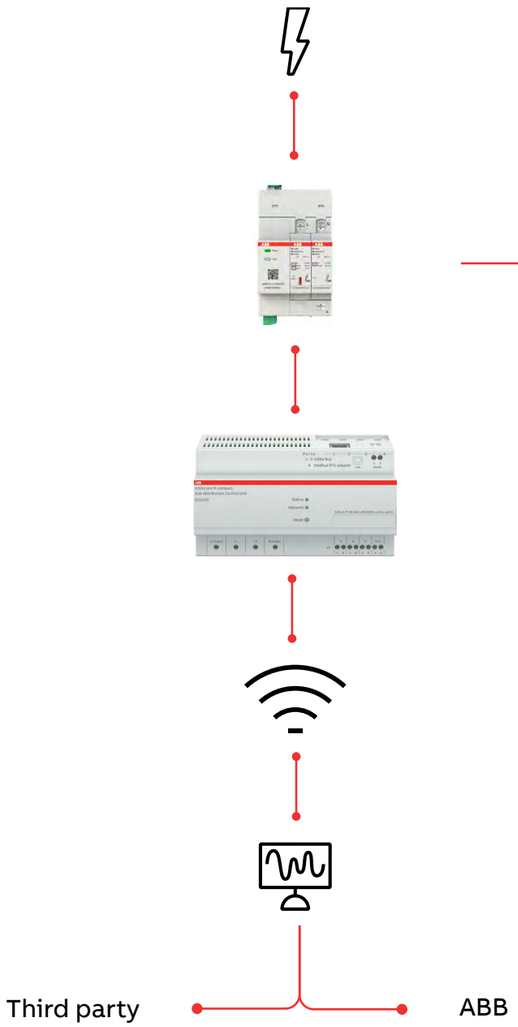
Benefits

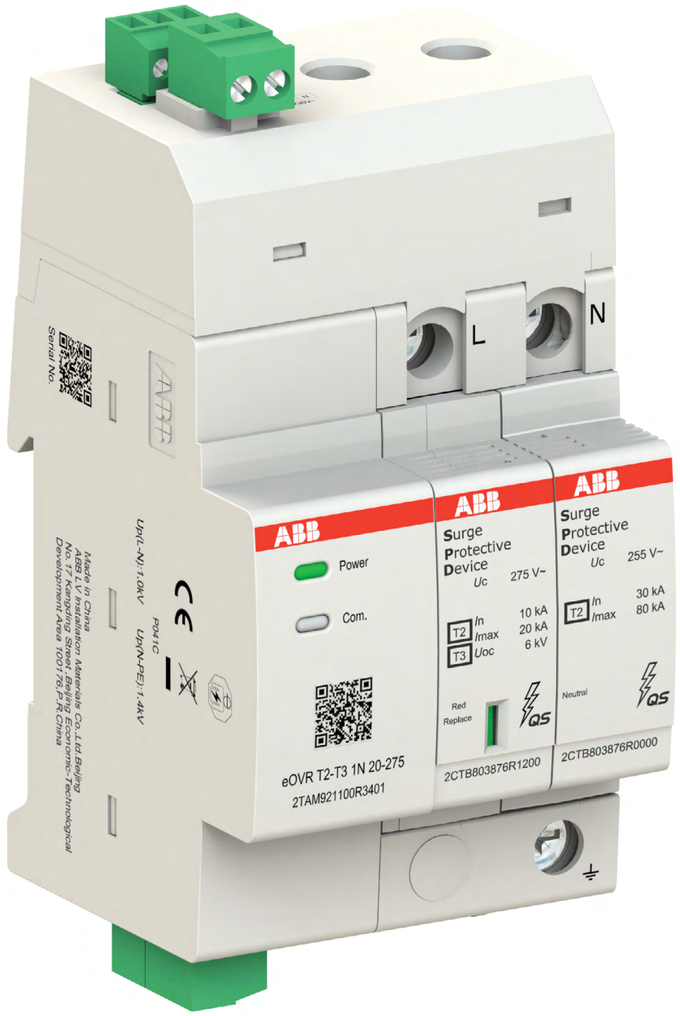
The power of data and interconnectivity

The eOVR range extends the SPD capabilities of the OVR series and provides a digital module that can communicate with the server.

With this combination, digital SPDs are able to protect end devices from surges and transient overvoltages.

In addition, by monitoring, reporting and interconnecting various data, maintenance can be anticipated, extending operational continuity. The globally available eOVR range can be integrated with System pro M compact® InSite, ABB Ability™ and third-party local software and clouds.





Continuity of service

The SPD ensures the operation of the system by protecting the equipment from surge events by limiting the overvoltage level.

Access real-time data

eOVR provides the ability to remotely monitor SPD end-of-life, previous surge events, and various other data to improve SPD protection.

Predictive maintenance

The digital intersection of all data monitored by eOVR allows the user to be alerted to what preventive and corrective maintenance actions need to be performed to ensure effective surge protection

Main applications
Advanced maintenance and service continuity

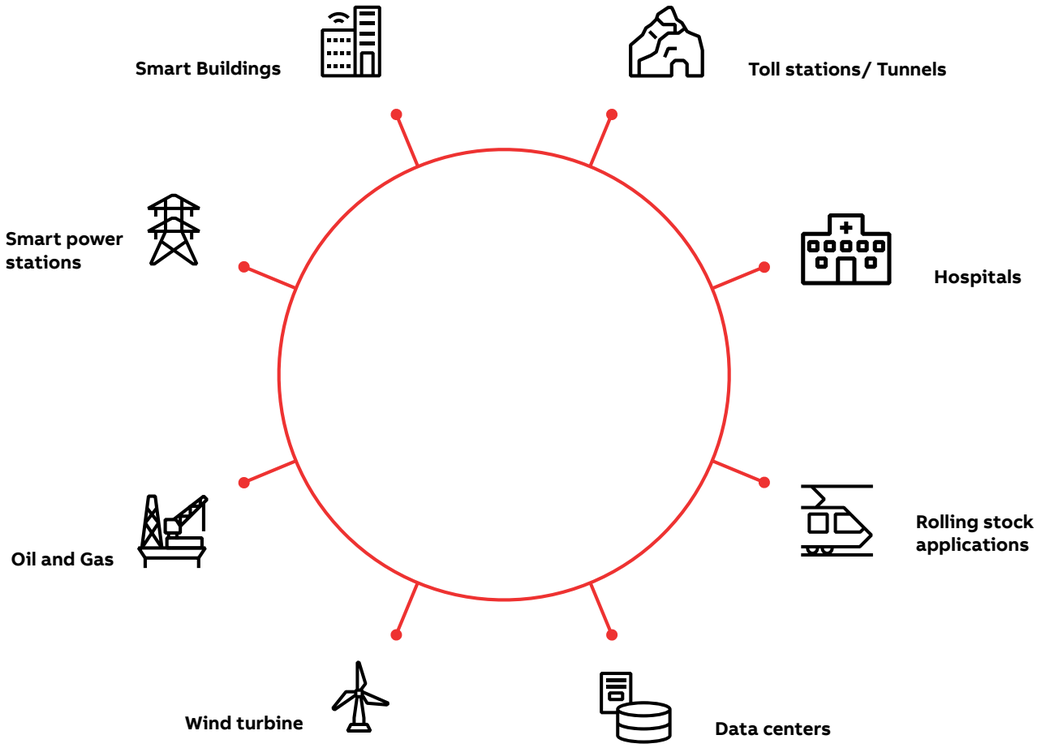
The need for remote monitoring of all product data to improve usage is increasing worldwide, especially in smart buildings, smart power stations, hospitals, data centers and wind turbines.

Thanks to the continuous monitoring of SPDs connected to the system, maintenance activities can be scheduled well in advance and in time, reducing the number of urgent maintenance operations while increasing the level of protection of each single application.

With improved predictive maintenance, system availability is increased, as well as uninterrupted operation - especially important for critical power applications such as hospitals, where any interruption can lead to fatalities.

Also, when it comes to continuity of operations in production lines, early notification of the system based on device condition monitoring can prevent production downtime, loss of business and customer dissatisfaction.

For hard-to-reach installations, such as wind turbines, remote monitoring is particularly useful because real-time data can be easily accessed from any mobile device.



—
01

—
02

—
01
Wind park
—
02 Production line
—
03 Hospitals

—
03

Customizable dashboard
InSite web server integration

Over/under voltage (V)
is the nominal voltage value, when it goes over or under normal condition, an alert is sent out.

→ Permanent overvoltages are varistor enemy, resulting to a premature ageing.

Optimum interface
Customized UI (InSite) dashboard with user friendly widgets and alarm setup.

Ambient temperature (°C)
is the temperature measure around the eOVR.

→ To alert the user if the temperature has reached a level that could lead to DIN rail device degradation.

SPD end of life (%)
Varistor's status (100%-0%), it depends on the current leaking through it when deteriorating.

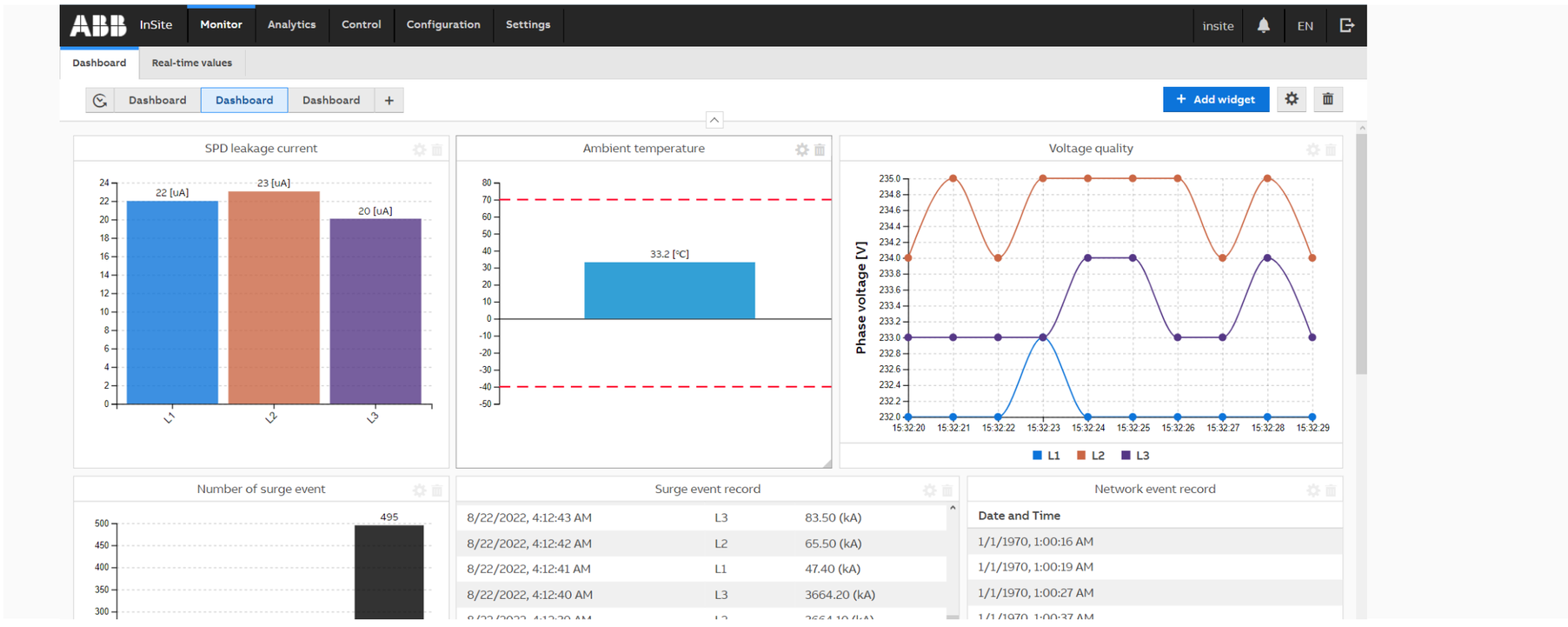
→ If it reaches 0% the line is not anymore protected against surge.

Surge event counter (times, D/H)
is the number of surge event (1,2,3….) handled and monitored by the eOVR.

→ It can help in predicting the varistor degradation due to high number of surges or other network disturbances.

Surge amplitude (A)
is the maximum current value measured during the surge.

→ Allow to evaluate average surge level the SPD protects from and if there is a need in upgrading the version.



Upstream MCB monitoring
states if the MCB upstream eOVR is switched ON / OFF.

→ If the MCB is switched OFF, then the SPD is not protecting the installation anymore.

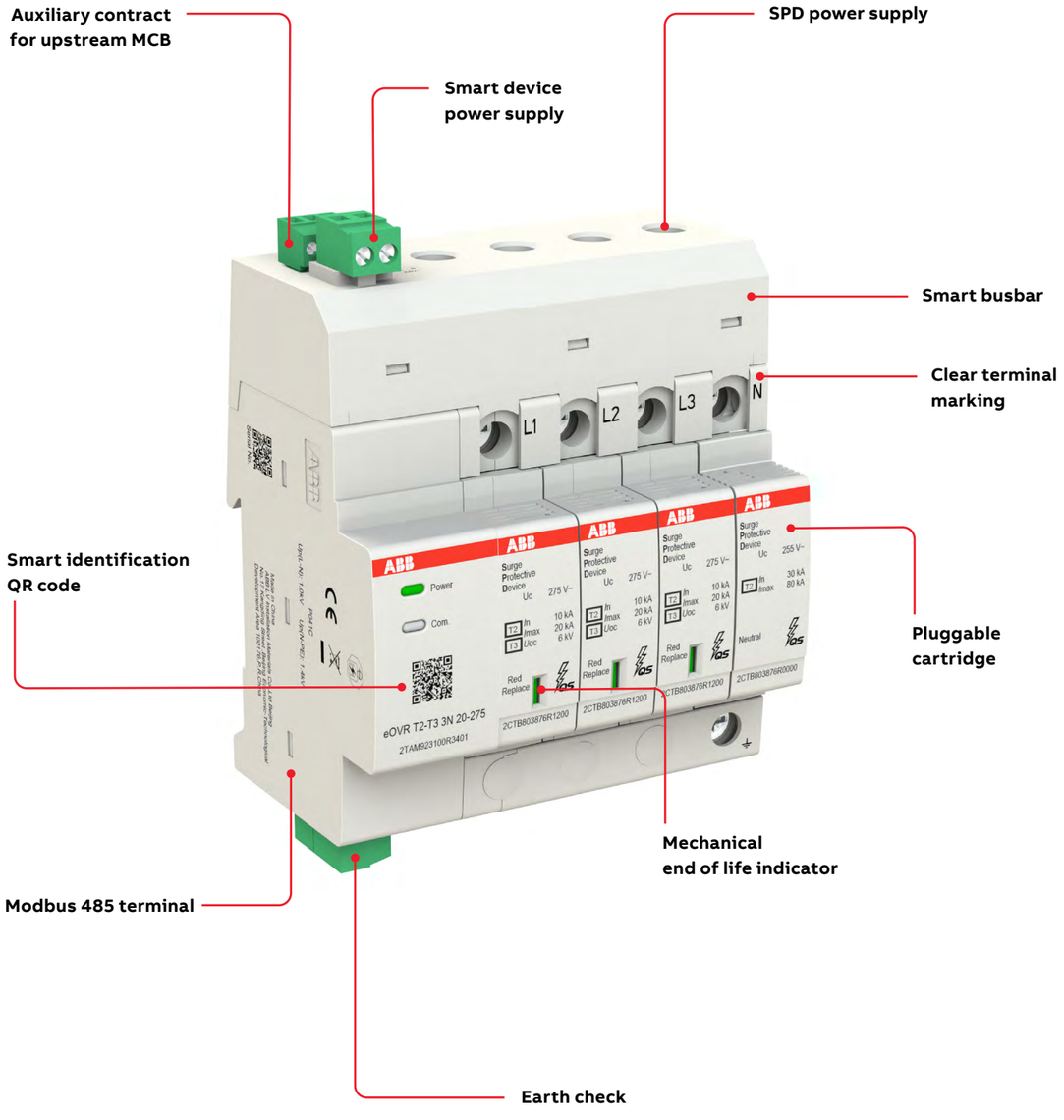
Earthing connection status
states if the eOVR is correctly connected to the ground.

→ If not connected to the ground, a surge will find another ground connection and damage all equipment on his way.

Current leakage (µA)
is the value of current passing through the varistor.

→ State if the varistor has started to get damaged and need a close monitoring to prevent to unwanted fail.

Digital SPDs eOVR
Hardware features



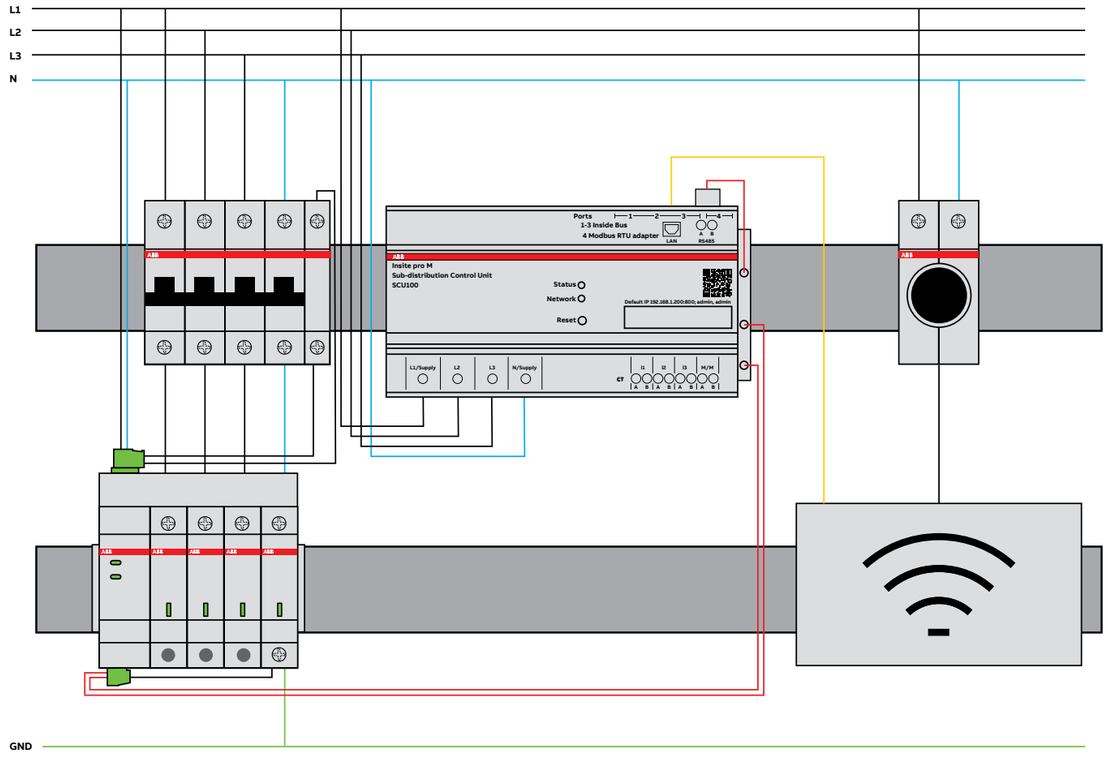
Easy installation and integration
Wiring overview

For ease of installation, the SPD and digital module are assembled and tested at the factory. In addition, the plug-in terminal blocks simplify wiring.

Upstream eOVR has to be connected to a dedicated MCB, which is coupled to an auxiliary contact and the power supply that feeds the digital module.

Downstream, eOVR has to be connected to the Smart control unit SCU100 to enable communication.

Last but not least, a special cable is provided between the digital module and the SPD ground to ensure that the earthing works.



Watch the video

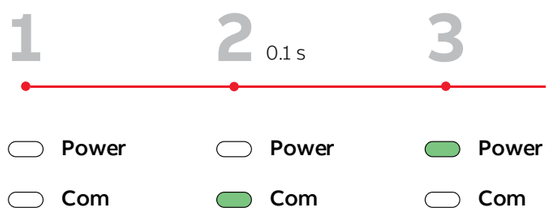
Digital operation

—
When powered on

When power is on, firstly, the device will automatically check whether the function of the two LED lights is ok. If the 2 LED lights follow the below process, the function is ok.

1. The light of Com will be off after 0.1s
2. Then the light of Power will turn on.

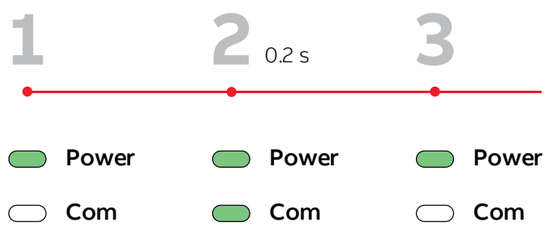
Under normal condition, the light of power is always on, the light of com is off.



—
When communicating

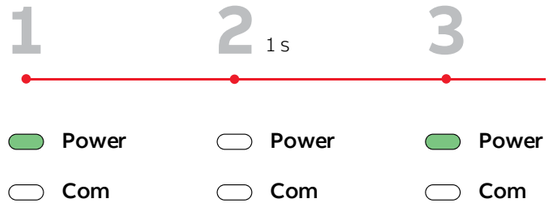
When transmitting the information, the light of Com will be on for 0.2s, then off.

This cycle will be repeated to all the needed information been transmitted, then the light of com will be off.



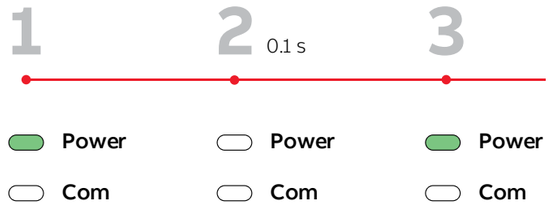
—
Earthing connection fault

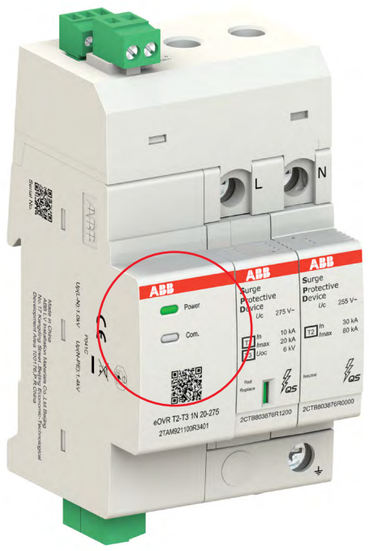
When there is problem of the ground connection, the light of power will be off for 1s , then turned back on. This cycle will be repeated until this fault is removed, then the light of Power will be back to green.



—
MOV's end of life/ SPD TS triggered/ Back-up protection failure

When such malfunctions occur, the light of Power will be turned off for 0.1s , then turned back on. This cycle will be repeated until this fault is removed, then the light of Power will be back to green again.

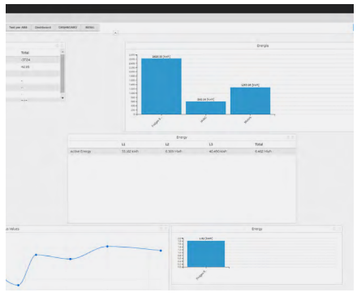




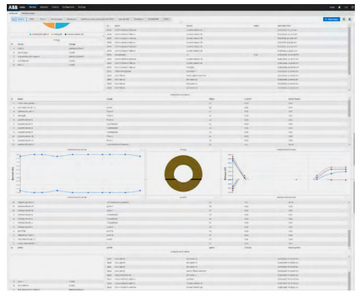
—
Technical Data I

Alarms	By web	By local LED light
Leakage current	•	
Over & under voltages	•	
The trigger of under voltage is 184V, the trigger of over voltage is 276V	•	
Earthing connection status	•	•
Back up protection status	•	•
MOV failing prediction	•	
SPD status	•	•

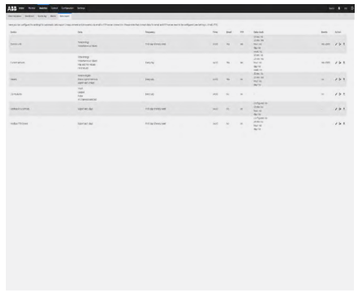
Digital SPDs eOVR
Software features



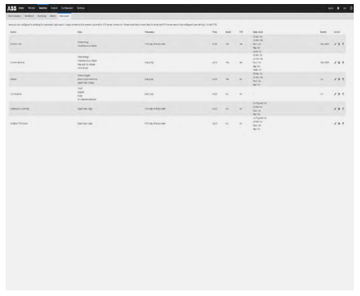
End-of-life prediction
eOVR measures the leakage current flowing through the Metal Oxide Varistor (MOV) in real time. With an algorithm based on laboratory tests, it evaluates the end of life status of each MOVs in %.



Suggested maintenance operation
Based on the status of the eOVR (end-of-life, temperature, network nominal voltages), preventive maintenance operations will be suggested with the aim to optimize the continuity of service by keeping the surge protection level at its maximum.



Maintenance report
It is possible to extract a maintenance report about the eOVR. Such a report supports planning the upcoming maintenance operations and allows to keep track of the status in a specific period of time.



Alarms/notifications
In the InSite web server it's possible to set alarms for a number of eOVR attributes to inform each time there is a change. This serves the purpose of anticipating and organising predictive maintenance operations as much in advance as possible, in order to prolong the system's continuity of service.

Digital SPDs eOVR
eOVR Type 1 - Type 2

Function:
Surge protective devices SPD Type 1- Type 2, Type 2 and Type 2– Type 3 protect low-voltage consumer systems against lightning currents and surge voltages as they are tested as SPD Type 1, Type 2, and Type 2+3, according to IEC 61643-11. They are offering digital features through ABB's System pro M compact InSite UI to monitor several features to enhance its protection level.

Application: Commercial, Building, Industrial.
Standard: IEC 61643-11; EN 61000-6-2/EN 61000-6-3

eOVR T1-T2 3N 12.5-275s

Protected lines	Impulse current	Max discharge current	Nominal current	Follow current interrupting ingrating Ifi	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Order details	
	Iimp 10/350 kA	Imax 8/20 kA	In kA	Ifi kV	Up kV	Un V	Uc V	Type code	Order code
3+1	12.5	80	20	-	1.4	230/400	275	eOVR T1-T2 3N 12.5-275s	2TAM913100R5411
3+1	12.5	80	20	-	1.4	400/690	440	eOVR T1-T2 3N 12.5-440s	2TAM913100R5811
3	12.5	80	20	-	1.4	400/690	440	eOVR T1-T2 3L 12.5-440s	2TAM913000R5811
4	12.5	80	20	-	1.4	400/690	440	eOVR T1-T2 4L 12.5-440s	2TAM914000R5811

eOVR T2 3N 40-350

Protected lines	Impulse current	Max discharge current	Nominal current	Follow current interrupting ingrating Ifi	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Order details	
	Iimp 10/350 kA	Imax 8/20 kA	In kA	Ifi kV	Up kV	Un V	Uc V	Type code	Order code
1+1	-	40	20	-	1.5	230	350	eOVR T2 1N 40-350	2TAM901100R4501
3+1	-	40	20	-	1.5	230/400	350	eOVR T2 3N 40-350	2TAM903100R4501
3+1	-	80	20	-	2.1	400/690	440	eOVR T2 3N 80-440s	2TAM903100R5811
3	-	40	20	-	1.8	230/400	275	eOVR T2 3L 40-275s	2TAM903000R4411

eOVR T2-T3 1N 20-275

Protected lines	Impulse current	Max discharge current	Nominal current	Follow current interrupting ingrating Ifi	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Order details	
	Iimp 10/350 kA	Imax 8/20 kA	In kA	Ifi kV	Up kV	Un V	Uc V	Type code	Order code
1+1	-	20	5	-	1.4	230	275	eOVR T2-T3 1N 20-275	2TAM921100R3401
3+1	-	20	5	-	1.4	230/400	275	eOVR T2-T3 3N 20-275	2TAM923100R3401

Digital SPDs eOVR

eOVR T1-T2

						
			eOVR T1-T2 3N 12.5-275s	**eOVR T1-T2 3N 12.5-440s**	**eOVR T1-T2 3L 12.5-440s**	**eOVR T1-T2 4L 12.5-440s**
Monitoring	**Surge event counter**		•	•	•	•
	SPD end of life prediction		•	•	•	•
	SSD/back up status		•	•	•	•
	SPD status		•	•	•	•
	Ambient temperature		•	•	•	•
	Nominal voltage		•	•	•	•
	Surge amplitude		•	•	•	•
	Surge current polarity		-	-	-	-
	Surge energy		-	-	-	-
	Surge time		•	•	•	•
Detection	**Surge detectable value**		1kA~80kA	1kA~80kA	1kA~80kA	1kA~80kA
	Surge level to trigger event counter		>1kA	>1kA	>1kA	>1kA
	Leakage current resolution		1μA	1μA	1μA	1μA
	Leakage current measurement range		1μA~500μA	1μA~500μA	1μA~500μA	1μA~500μA
	Maximum measuring period	s	-	-	-	-
	Sampling rate	Hz	-	-	-	-
Alarm	**Front face blinking LED**		•	•	•	•
	Audible alarm		-	-	-	-
	Leakage current		•	•	•	•
	Over voltage		•	•	•	•
	Undervoltage		•	•	•	•
	Back up protection status		•	•	•	•
	MOV end of life		•	•	•	•
	SPD status		•	•	•	•
Record	**Local memory capacity**		20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record
Communication	**Intranet**		Modbus RS-485	Modbus RS-485	Modbus RS-485	Modbus RS-485
	Cloud		ABB InSite Pro M	ABB InSite Pro M	ABB InSite Pro M	ABB InSite Pro M
	Third party		ABB Ability	ABB Ability	ABB Ability	ABB Ability
ABB Insite Pro M interface	**Customized dashboard**		•	•	•	•
	Product location		•	•	•	•
	Alarm setting		•	•	•	•
	Historical events extraction		•	•	•	•
	Multiple SPD monitoring		•	•	•	•
	Customized email notification		•	•	•	•
	Automatical maintenance suggestion		•	•	•	•
Standard	**Electromagnetic Compatibility (EMC)**		EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3

Digital SPDs eOVR

eOVR T1-T2

								
					eOVR T1-T2 3N 12.5-275s	eOVR T1-T2 3N 12.5-440s	eOVR T1-T2 3L 12.5-440s	eOVR T1-T2 4L 12.5-440s
Key characteristics	**Protection mode**				L-N/N-PE/L-PE/L-L	L-N/N-PE/L-PE/L-L	L-L/L-PE	L-N/N-PE/L-PE/L-L
	Number of protected lines				3P+N	3P+N	3L	4L
	Test class				I-II / T1-T2	I-II / T1-T2	I-II / T1-T2	I-II / T1-T2
	Pluggable cartrige				•	•	•	•
	Integrated thermal disconnector				•	•	•	•
	End of life indicator				•	•	•	•
	Safety reserve				•	•	•	•
Electrical characteristics	**System network**				TT, TNS	TT, TNS	TNC	TNS
	Nominal discharge current	In (8/20)	kA		20	20	20	20
	Maximal discharge current	Imax (8/20)	kA		80	80	80	80
	Impulse current	Iimp (10/350)			12,5	12,5	12,5	12,5
	Maximal continuous operating voltage	Uc	kA		275	440	440	440
	Voltage protection level at In	Up (L-PE)	kV		1,35	2	2	1,9
	Voltage protection level at In	Up (L-N)	kV		1,2	1,9	-	3,8
	Voltage protection level at In	Up (N-PE)	kV		1,1	1,9	-	1,9
	Short circuit withstand	Isccr	kA		100	100	100	100
	Total current	Itotal	kA		50	50	37,5	50
	Follow current interrupted	Ifi	kA		-/0,1	-/0,1	-/0,1	-/0,1
	Ground residual current	Ipe	µA		< 10	< 10	< 10	< 10
	TOV withstand (L-N : 5s / N-PE : 200 ms)	Ut	V		337 / 1200	337 / 1200	337 / 1200	337 / 1200
	Voltage Combination wave		kV		20	20	20	20
	Required thermal/back up protection maximum rating	**MCB S200 or POD**			-	-	-	-
		Curve B or C Circuit breaker		A	-	-	-	-
		gG - gL fuse		A	< 125	< 125	< 125	< 125
	Standard	**Surge Protective Devices**			IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1
	Miscellaneous characteristics	**Response time**		ns	25	25	25	25
		Fire resistance according to UL 94			V-0	V-0	V-0	V-0
	Replacement cartridges	**Phase / Product ID**			2CTB815710R2600	2CTB815710R5500	2CTB815710R5500	2CTB815710R5500
		Neutral / Product ID			2CTB815710R2700	2CTB815710R5600	-	2CTB815710R5500
Global	**Electrical characteristics**	**Nominal voltage**		V	230	400	400	400
		Type of current / frequency		Hz	a.c 47-63	a.c 47-63	a.c 47-63	a.c 47-63
	Mechanical characteristics	**Wire range : Solid/Stranded**		mm^2	2,5…16	2,5…16	2,5…16	2,5…16
		Stripping lenght		mm	12,5	12,5	12,5	12,5
		Tightening torque		N.m	2,8	2,8	2,8	2,8
		Dimensions	W x D x H	mm	98.5 x 69.4 x 111	151.9 x 69.4 x 111	137.2 x 69.4 x 111	169.7 x 69.4 x 111
		Weight		kg	0,865	1,16	1,052	1,321
		Packing quantities		pce	1	1	1	1
		Protection level			IP 20	IP 20	IP 20	IP 20
		Maximal altitude		m	2000	2000	2000	2000
	Miscellaneous characteristics	**Temperature**		°C	-40 to +80°C	-40 to +80°C	-40 to +80°C	-40 to +80°C
		Relative humidity		% R.H	5-95	5-95	5-95	5-95
	Standard	**Intelligent Surge Protective Devices**			NB/T 10284	NB/T 10284	NB/T 10284	NB/T 10284

Digital SPDs eOVR

eOVR T2

						
			eOVR T2 1N 40-350	**eOVR T2 3N 40-350**	**eOVR T2 3N 80-440s**	**eOVR T2 3L 40-275s**
Monitoring	**Surge event counter**		•	•	•	•
	SPD end of life prediction		•	•	•	•
	SSD/back up status		•	•	•	•
	SPD status		•	•	•	•
	Ambient temperature		•	•	•	•
	Nominal voltage		•	•	•	•
	Surge amplitude		•	•	•	•
	Surge current polarity		-	-	-	-
	Surge energy		-	-	-	-
	Surge time		•	•	•	•
Detection	**Surge detectable value**		1kA~80kA	1kA~80kA	1kA~80kA	1kA~80kA
	Surge level to trigger event counter		>1kA	>1kA	>1kA	>1kA
	Leakage current resolution		1μA	1μA	1μA	1μA
	Leakage current measurement range		1μA~500μA	1μA~500μA	1μA~500μA	1μA~500μA
	Maximum measuring period	s	-	-	-	-
	Sampling rate	Hz	-	-	-	-
Alarm	**Front face blinking LED**		•	•	•	•
	Audible alarm		-	-	-	-
	Leakage current		•	•	•	•
	Over voltage		•	•	•	•
	Undervoltage		•	•	•	•
	Back up protection status		•	•	•	•
	MOV end of life		•	•	•	•
	SPD status		•	•	•	•
Record	**Local memory capacity**		20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record
Communication	**Intranet**		Modbus RS-485	Modbus RS-485	Modbus RS-485	Modbus RS-485
	Cloud		ABB InSite Pro M	ABB InSite Pro M	ABB InSite Pro M	ABB InSite Pro M
	Third party		ABB Ability	ABB Ability	ABB Ability	ABB Ability
ABB Insite Pro M interface	**Customized dashboard**		•	•	•	•
	Product location		•	•	•	•
	Alarm setting		•	•	•	•
	Historical events extraction		•	•	•	•
	Multiple SPD monitoring		•	•	•	•
	Customized email notification		•	•	•	•
	Automatical maintenance suggestion		•	•	•	•
Standard	**Electromagnetic Compatibility (EMC)**		EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3

Digital SPDs eOVR

eOVR T2

								
					eOVR T2 1N 40-350	**eOVR T2 3N 40-350**	**eOVR T2 3N 80-440s**	**eOVR T2 3L 40-275s**
Key characteristics	**Protection mode**				L-N/N-PE/L-PE/L-L	L-N/N-PE/L-PE/L-L	L-N/N-PE/L-PE/L-L	L-L/L-PE
	Number of protected lines				1P+N	3P+N	3P+N	3L
	Test class				II / T2	II / T2	II / T2	II / T2
	Pluggable cartrige				•	•	•	•
	Integrated thermal disconnector				•	•	•	•
	End of life indicator				•	•	•	•
	Safety reserve				-	-	•	•
Electrical characteristics	**System network**				TT, TNS	TT, TNS	TT, TNS	TNC
	Nominal discharge current	In (8/20)		kA	20	20	20	20
	Maximal discharge current	Imax (8/20)		kA	40	40	80	40
	Impulse current	Iimp (10/350)			-	-	-	-
	Maximal continuous operating voltage	Uc		kA	350	350	440	275
	Voltage protection level at In	Up (L-PE)		kV	1,5	1,5	2,1	1,4
	Voltage protection level at In	Up (L-N)		kV	1,4	1,4	1,8	-
	Voltage protection level at In	Up (N-PE)		kV	1,25	1,25	2	-
	Short circuit withstand	Isccr		kA	100	100	100	100
	Total current	Itotal		kA	80	80	80	80
	Follow current interrupted	Ifi		kA	-/0,1	-/0,1	-/0,1	-/0,1
	Ground residual current	Ipe		µA	< 10	< 10	< 10	< 10
	TOV withstand (L-N : 5s / N-PE : 200 ms)	Ut		V	337 / 1200	337 / 1200	337 / 1200	337 / 1200
	Voltage Combination wave			kV	20	20	20	20
	Required thermal/back up protection maximum rating	**MCB S200 or POD**			•	•	•	•
		Curve B or C Circuit breaker		A	< 125	< 125	< 125	< 125
		gG - gL fuse		A	< 125	< 125	< 125	< 125
	Standard	**Surge Protective Devices**			IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1
	Miscellaneous characteristics	**Response time**		ns	25	25	25	25
		Fire resistance according to UL 94			V-0	V-0	V-0	V-0
	Replacement cartridges	**Phase / Product ID**			2CTB803886R1000	2CTB803886R1000	2CTB815708R5500	2CTB815704R2600
		Neutral / Product ID			2CTB803886R0000	2CTB803886R0000	2CTB815708R5700	-
Global	**Electrical characteristics**	**Nominal voltage**		V	230	230	400	230
		Type of current / frequency		Hz	a.c 47-63	a.c 47-63	a.c 47-63	a.c 47-63
	Mechanical characteristics	**Wire range : Solid/Stranded**		mm^2	2,5…16	2,5…16	2,5…16	2,5…16
		Stripping lenght		mm	12,5	12,5	12,5	12,5
		Tightening torque		N.m	2,8	2,8	2,8	2,8
		Dimensions	W x D x H	mm	62.9 x 58 x 111	98.5 x 58 x 111	98.5 x 69.4 x 111	83.6 x 69.4 x 111
		Weight		kg	0,46	0,715	0,835	0,692
		Packing quantities		pce	1	1	1	1
		Protection level			IP 20	IP 20	IP 20	IP 20
		Maximal altitude		m	2000	2000	2000	2000
	Miscellaneous characteristics	**Temperature**		°C	-40 to +80°C	-40 to +80°C	-40 to +80°C	-40 to +80°C
		Relative humidity		% R.H	5-95	5-95	5-95	5-95
	Standard	**Intelligent Surge Protective Devices**			NB/T 10284	NB/T 10284	NB/T 10284	NB/T 10284

Digital SPDs eOVR

eOVR T2-T3

				
			eOVR T2-T3 1N 20-275	**eOVR T2-T3 3N 20-275**
Monitoring	**Surge event counter**		•	•
	SPD end of life prediction		•	•
	SSD/back up status		•	•
	SPD status		•	•
	Ambient temperature		•	•
	Nominal voltage		•	•
	Surge amplitude		•	•
	Surge current polarity		-	-
	Surge energy		-	-
	Surge time		•	•
Detection	**Surge detectable value**		1kA~80kA	1kA~80kA
	Surge level to trigger event counter		>1kA	>1kA
	Leakage current resolution		1μA	1μA
	Leakage current measurement range		1μA~500μA	1μA~500μA
	Maximum measuring period	s	-	-
	Sampling rate	Hz	-	-
Alarm	**Front face blinking LED**		•	•
	Audible alarm		-	-
	Leakage current		•	•
	Over voltage		•	•
	Undervoltage		•	•
	Back up protection status		•	•
	MOV end of life		•	•
	SPD status		•	•
Record	**Local memory capacity**		20 surge events and 10 spd remote signal status change record	20 surge events and 10 spd remote signal status change record
Communication	**Intranet**		Modbus RS-485	Modbus RS-485
	Cloud		ABB InSite Pro M	ABB InSite Pro M
	Third party		ABB Ability	ABB Ability
ABB Insite Pro M interface	**Customized dashboard**		•	•
	Product location		•	•
	Alarm setting		•	•
	Historical events extraction		•	•
	Multiple SPD monitoring		•	•
	Customized email notification		•	•
	Automatical maintenance suggestion		•	•
Standard	**Electromagnetic Compatibility (EMC)**		EN 61000-6-2/EN 61000-6-3	EN 61000-6-2/EN 61000-6-3

Digital SPDs eOVR

eOVR T2-T3

						
					eOVR T2-T3 1N 20-275	**eOVR T2-T3 3N 20-275**
Key characteristics	**Protection mode**				L-N/N-PE/L-PE/L-L	L-N/N-PE/L-PE/L-L
	Number of protected lines				1P+N	3P+N
	Test class				II-III / T2-T3	II-III / T2-T3
	Pluggable cartrige				•	•
	Integrated thermal disconnector				•	•
	End of life indicator				•	•
	Safety reserve				-	-
Electrical characteristics	**System network**				TT,TNS	TT,TNS
	Nominal discharge current	In (8/20)		kA	5	5
	Maximal discharge current	Imax (8/20)		kA	20	20
	Impulse current	Iimp (10/350)			-	-
	Maximal continuous operating voltage	Uc		kA	275	275
	Voltage protection level at In	Up (L-PE)		kV	1,4	1,4
	Voltage protection level at In	Up (L-N)		kV	0,9	0,9
	Voltage protection level at In	Up (N-PE)		kV	1,4	1,4
	Short circuit withstand	Isccr		kA	100	100
	Total current	Itotal		kA	80	80
	Follow current interrupted	Ifi		kA	-/0,1	-/0,1
	Ground residual current	Ipe		µA	< 10	< 10
	TOV withstand (L-N : 5s / N-PE : 200 ms)	Ut		V	337 / 1200	337 / 1200
	Voltage Combination wave			kV	20	20
	Required thermal/back up protection maximum rating	**MCB S200 or POD**			•	•
		Curve B or C Circuit breaker		A	< 125	< 125
		gG - gL fuse		A	< 125	< 125
	Standard	**Surge Protective Devices**			IEC 61643-11 / GB/T 18802.1	IEC 61643-11 / GB/T 18802.1
	Miscellaneous characteristics	**Response time**		ns	25	25
		Fire resistance according to UL 94			V-0	V-0
	Replacement cartridges	**Phase / Product ID**			2CTB803876R1200	2CTB803876R1200
		Neutral / Product ID			2CTB803876R0000	2CTB803876R0000
Global	**Electrical characteristics**	**Nominal voltage**		V	230	230
		Type of current / frequency		Hz	a.c 47-63	a.c 47-63
	Mechanical characteristics	**Wire range : Solid/Stranded**		mm^2	2,5…16	2,5…16
		Stripping lenght		mm	12,5	12,5
		Tightening torque		N.m	2,8	2,8
		Dimensions	W x D x H	mm	62.9 x 58 x 111	98.5 x 58 x 111
		Weight		kg	0,453	0,694
		Packing quantities		pce	1	1
		Protection level			IP 20	IP 20
		Maximal altitude		m	2000	2000
	Miscellaneous characteristics	**Temperature**		°C	-40 to +80°C	-40 to +80°C
		Relative humidity		% R.H	5-95	5-95
	Standard	**Intelligent Surge Protective Devices**			NB/T 10284	NB/T 10284

ABB Ltd.
Electrification Business Area
Smart Buildings Division

solutions.abb/beyondconnected

9AKK108467A2355 Rev. A 09.2022