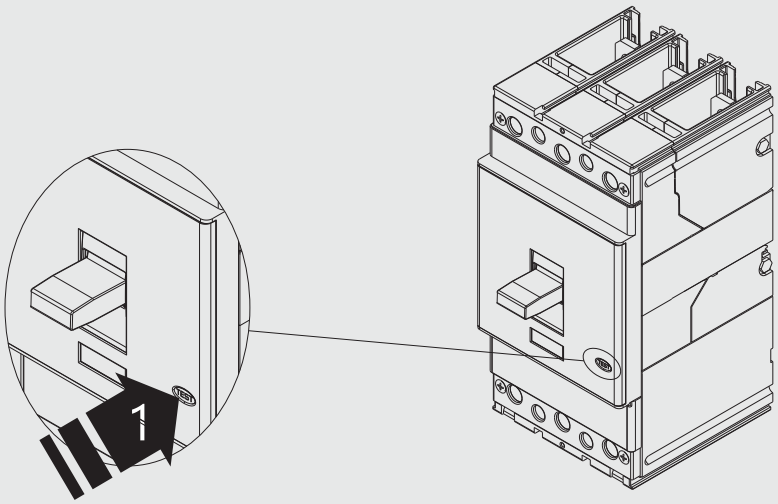
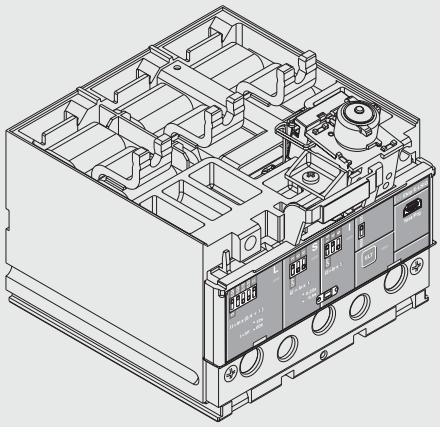
Doc. N.° 1SDH001366R0001 - B2396

SACE Tmax

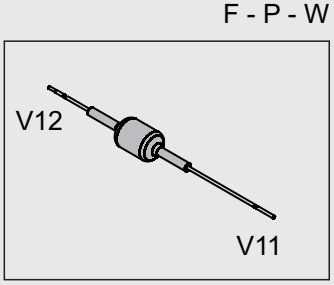
Ekip E-LSIG e connettore per conduttore neutro esterno, T4-T5.
Ekip E-LSIG and connector for external neutral conductor, T4-T5.
Ekip E-LSIG und Anschluss für außenliegenden neutralleiter, T4-T5.
Ekip E-LSIG et connecteur pour conducteur neutre extérieur, T4-T5.
Ekip E-LSIG y conectores para conductor neutro externo, T4-T5.

1SDH001366R0001





Ekip E-LSIG

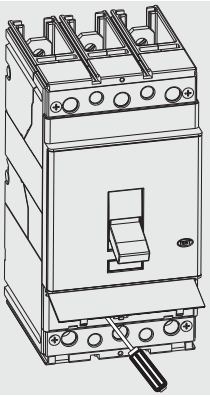


to X4 (8)

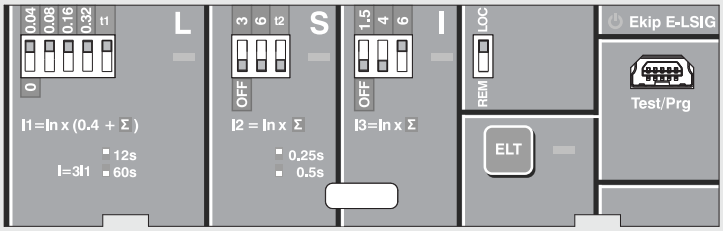
Optional
(V Ext Ne Connection kit)

LED	Color	CONDITION Run time	
⏻	Green	LED Fixed = Device active	
L	Red	LED Fixed = L pre alarm (0,9 * I1 < I < 1,2 * I1)	LED Blinking = L alarm (I > 1,2 * I1)
S	Red	LED Blinking = S alarm (I > I2)	
ELT	Green	LED Fixed = Electronic settings - OFF = Manual settings	
L | S | I	Red	LED Blinking = Parameters inconsistency - L >= S or S >= I. LED Blinking without Parameters inconsistency = generic fault (please contact ABB)	

2

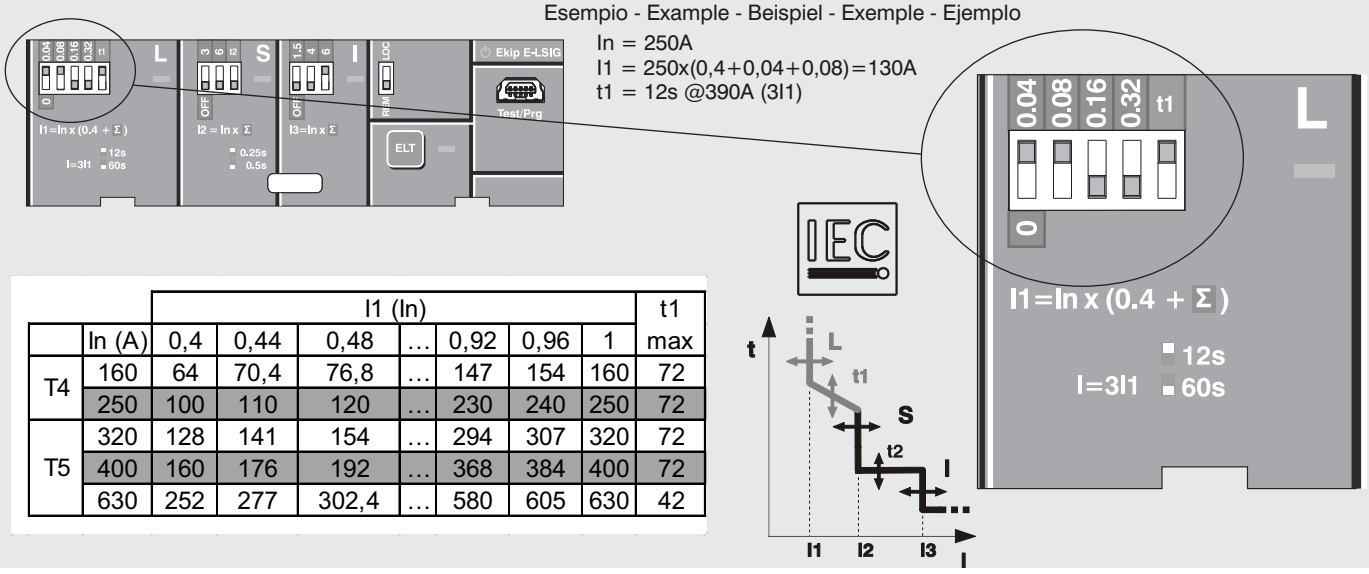


Impostazione default manuale
Manual default setting
Manuelle Default-Einstellung
Configuration par défaut manuelle
Ajuste de default manual



3

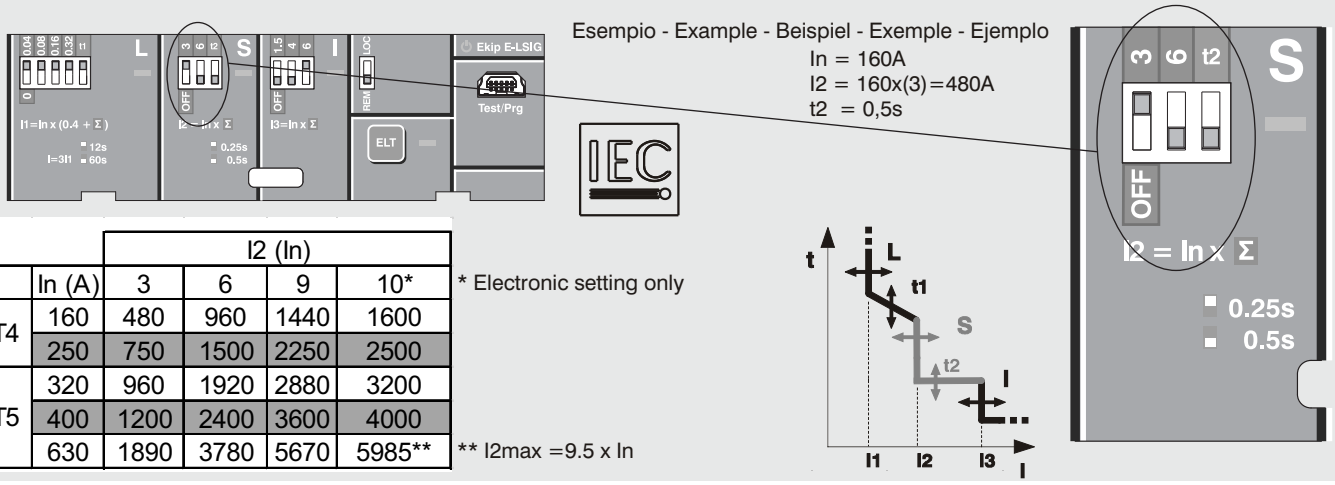
Esempio - Example - Beispiel - Exemple - Ejemplo
In = 250A
I1 = 250x(0,4+0,04+0,08)=130A
t1 = 12s @390A (3I1)



		I1 (In)							t1
	In (A)	0,4	0,44	0,48	…	0,92	0,96	1	max
T4	160	64	70,4	76,8	…	147	154	160	72
	250	100	110	120	…	230	240	250	72
T5	320	128	141	154	…	294	307	320	72
	400	160	176	192	…	368	384	400	72
	630	252	277	302,4	…	580	605	630	42

4

Esempio - Example - Beispiel - Exemple - Ejemplo
In = 160A
I2 = 160x(3)=480A
t2 = 0,5s

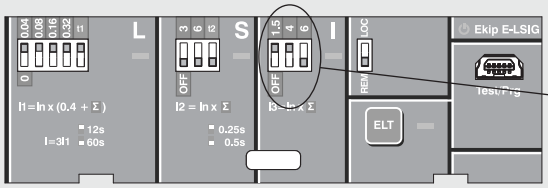


		I2 (In)			
	In (A)	3	6	9	10*
T4	160	480	960	1440	1600
	250	750	1500	2250	2500
T5	320	960	1920	2880	3200
	400	1200	2400	3600	4000
	630	1890	3780	5670	5985**

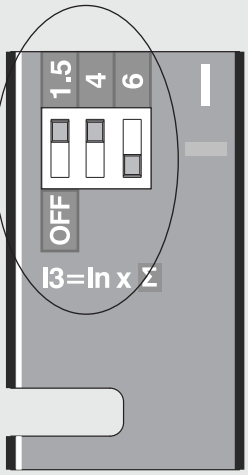
* Electronic setting only

** I2max =9.5 x In

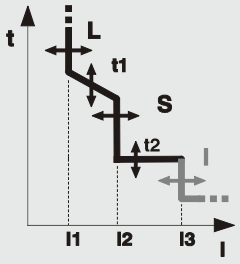
5



Esempio - Example - Beispiel - Exemple - Ejemplo
In = 250A
I3 = 250x(1.5+4)=1375A



		I3 (In)							
	In (A)	1,5	4	5,5	6	7,5	10	11,5	12*
T4	160	240	640	880	960	1200	1600	1840	1920
	250	375	1000	1375	1500	1875	2500	2875	3000
T5	320	480	1280	1760	1920	2400	3200	3680	3840
	400	600	1600	2200	2400	3000	4000	4600	4800
	630	945	2520	3465	3780	4725	5985**	5985**	5985**



* Electronic setting only
** I3 max =9.5 x In

6

Trip Test with Ekip TT

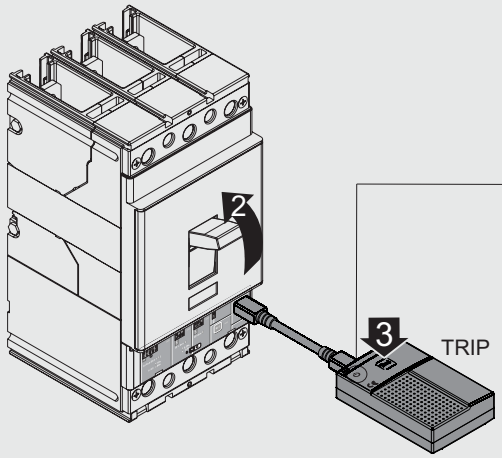
PROCEDURA DI CONTROLLO
- Collegare Ekip TT
- CONTROLLO LED: tutti i led del relè si devono accendere
- ULTIMA INDICAZIONE DI TRIP: se presente nella memoria del relè
- LED: ⏻ resta acceso finchè l'unità TT e' connessa al relè
- PRONTO PER TRIP

DIAGNOSTIC PROCEED
- Connect Ekip TT
- UNIT CHECK LED: all the leds in the relay must come on
- LAST TRIP INDICATION: if present in the relay's data store
- LED: ⏻ remains on for as long as the TT is connected to the relay
- READY TO TRIP

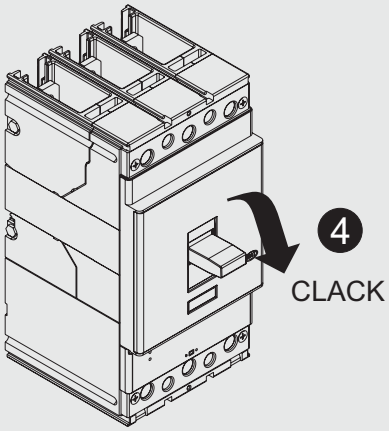
DIAGISTIKABLAUF
- Verbinden Ekip TT
- EINEITHSPRUF-LED: Alle LEDs des Relais müssen aufleuchten
- ANGABE DER LETZTEN AUSLOSUNG: Wenn im Speicher des Relais vorhanden.
- LED: ⏻ Bleibt angeschaltet, bis die Einheit TT an die Relais angeschlossen ist.
- AUSLOSEBEREIT

PROCÉDURE DE DIAGNOSTIC
- Brancher Ekip TT
- UNIT CHECK LED : toutes les diodes du relais doivent s'allumer
- LAST TRIP INDICATION : si présente dans la mémoire du relais
- LED: ⏻ la DIODE reste allumée tant que l'unité TT est connectée au relais
- READY TO TRIP

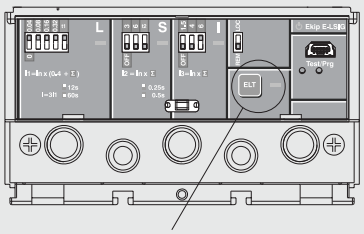
PROCEDIMIENTO DIAGNOSTICO
- Conectar Ekip TT
- LED CONTROL UNIDAD: todos los led del relé se deben encender
- INDICACION ULTIMA ACTUACION: si está presente en la memoria del relé
- LED: ⏻ queda encendido mientras la unidad TT permanezca conectada con el relé
- LISTO PARA LA ACTUACION



LED Ekip TT	
Verde Green Grün Vert Verde	Rosso Red Rot Rouge Rojo
Dispositivo acceso Device ON Einrichtung eingeschaltet Dispositif allumé Dispositivo encendido	Sostituire batterie Change battery Batterie ersetzen Remplacer batteries Sustituir baterías

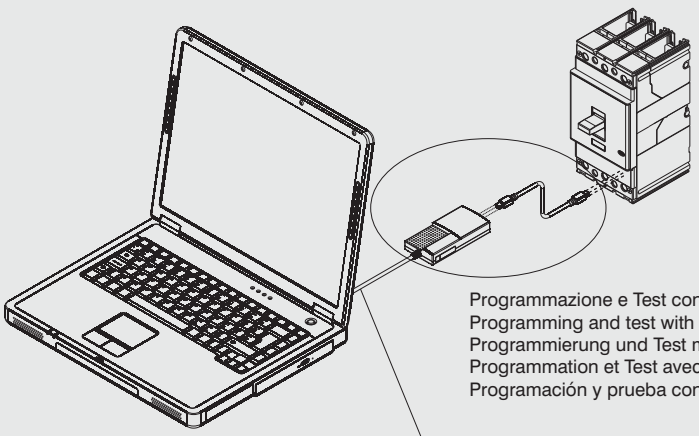


Impostazione elettronica: Range e Default
Electronic setting: Range and Default
Elektronische instelling: Range en Standaard
Réglage électronique: Gamme et Default
Configuración electrónica: Rango y por defecto



Push button for electronic/manual settings.
Led ON = Electronic
Led OFF = Manual

Esempio - Example - Beispiel - Exemple - Ejemplo



Programmazione e Test con Unità EKIP T&P
Programming and test with EKIP T&P
Programmierung und Test mit Einheit EKIP T&P
Programmation et Test avec Unité EKIP T&P
Programación y prueba con Unidad EKIP T&P

USB >=2.0

Settaggio tramite sist. di comunicazione
Setting by communication system
Einstellung über Kommunikationssystem
Réglage par syst. de communication
Configuración mediante sist. de comunicación

EKIP E-LSIG		RANGE	DEFAULT
L	I1	0.18…1 In step 0.01 In	1 In
	t1	3…72s step 0.5s	60s
S	Curve type	t=k/I2; t=k	t=k/I2
	I2	0.6…10 In step 0.1 In	OFF - 3 In
	t2	0.05…0.5s step 0.01	0.4s
I	I3	1.5…12 In step 0.1 In	ON - 4 In
G	I4	0.2…1 In step 0.02	OFF - 1 In
	t4	0.1…0.8s step 0.01s	0.8s
Trip unit configuration	Neutral configuration	OFF/50%/100%	100%
	Electronic/Manual parameters	MANUAL/ELECTRONIC	MANUAL
	Led Mode	POWER MODE (fixed)	POWER MODE
		ALIVE MODE (flash)	

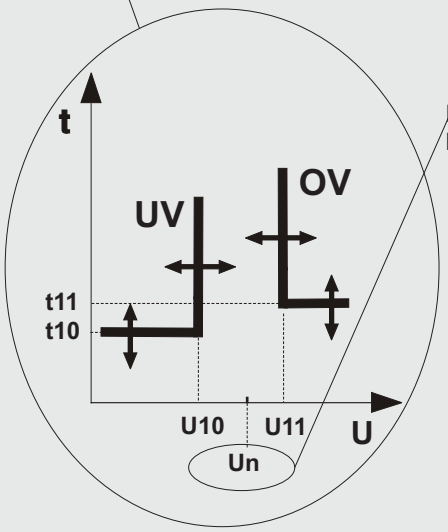
	EKIP E-LSIG		RANGE	DEFAULT
only with Vaux	UV	Trip Status	ON/OFF	ON
		U10	0.5…0.95 Un step 0.01 Un	OFF - 0.5 Un
		t10	0.1…5s step 0.1s	5 s
	OV	Trip Status	ON/OFF	ON
		U11	1.05…1.2 un step 0.01 Un	OFF - 1.2 Un
		t11	0.1…5s step 0.1s	5s
	Trip unit configuration	External neutral sensor	OFF/ON	OFF
		Nominal Voltage (Un)	100…690V step 1V	415V

Default setting OV-UV on Ekip E-LSIG by communication system

Un = 415 V

U10 = 0.5 * Un = 415*0.5 = 207.5 V
t10 = 5 s

U11 = 1.2 * Un = 415*1.2 = 498 V
t11= 5 s



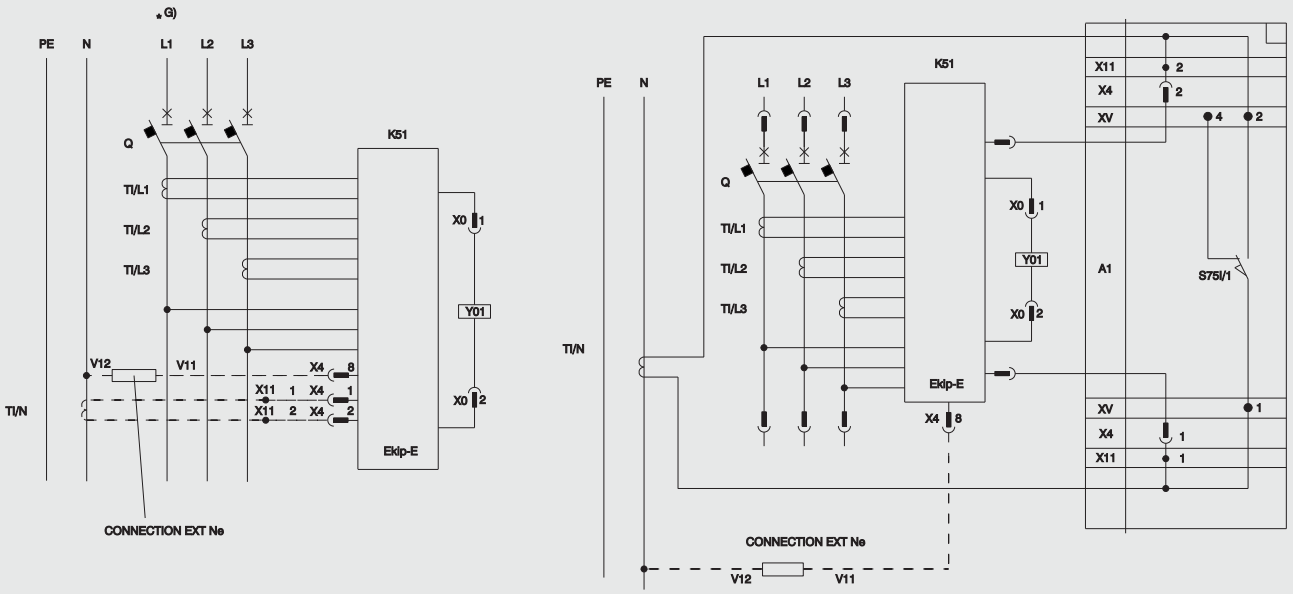
Example setting OV-UV on Ekip E-LSIG by communication system

Un = 690 V

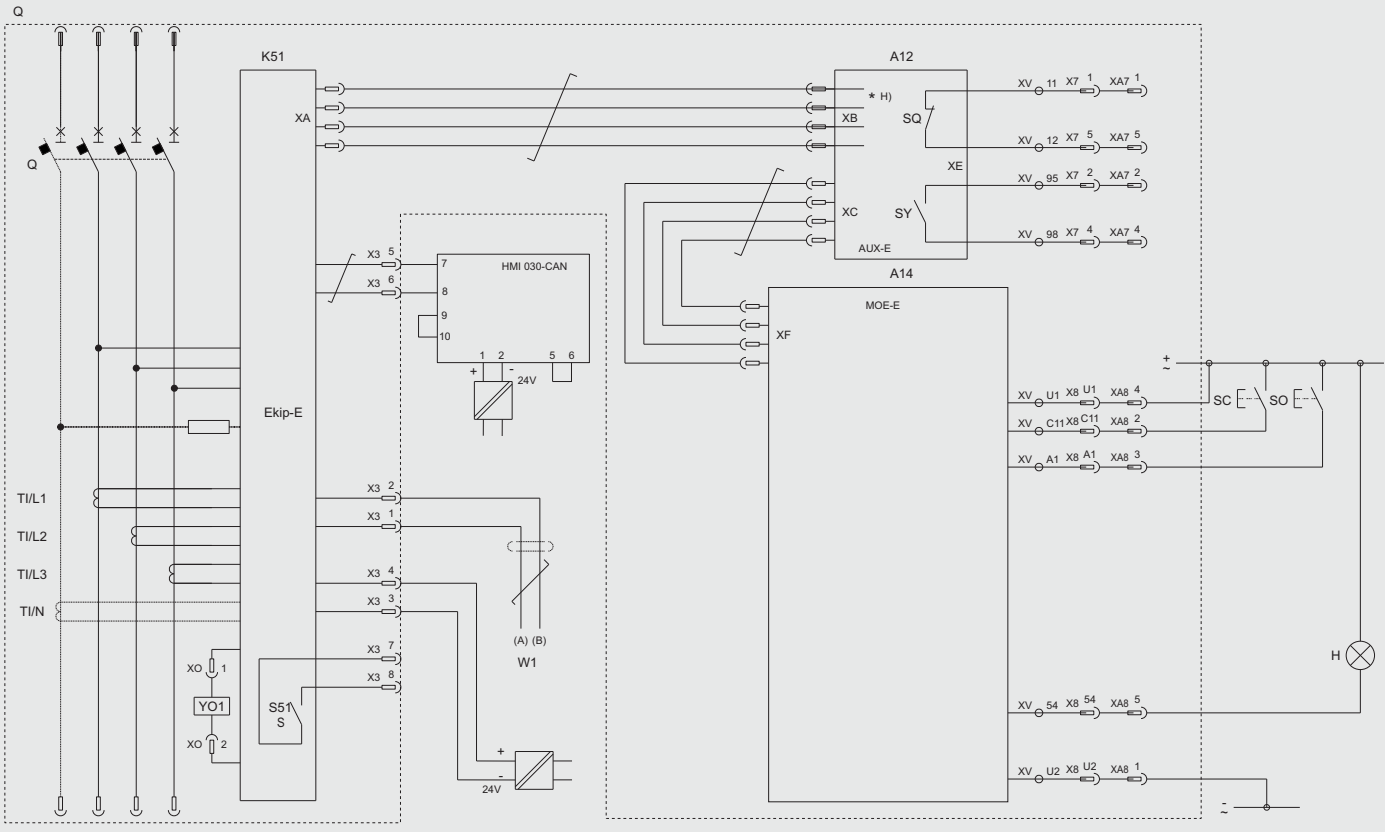
U10 = 0.75 * Un = 690*0.75 = 517.5 V
t10 = 1 s

U11 = 1.1 * Un = 690*1.1 = 759 V
t11= 3 s

8 CB III



9 with the AUX-E auxiliary contacts and the MOE-E actuation unit CB IV



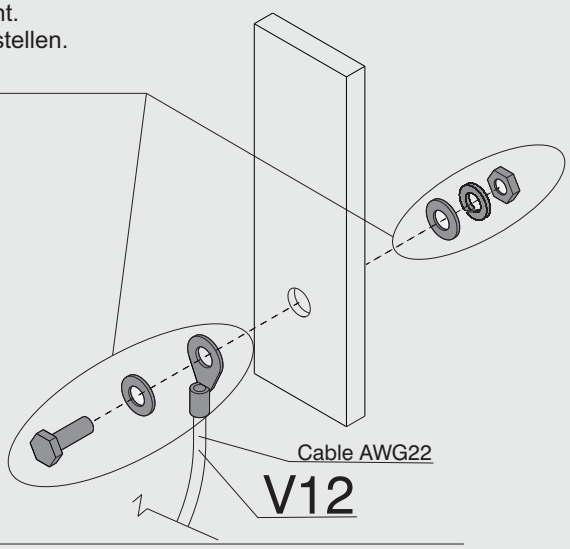
X3		
1	WS A	System Bus - Modbus
2	WS B	System Bus - Modbus
3	24V (-)	Auxiliary Supply
4	24V (+)	Auxiliary Supply
5	WI L	CAN Bus
6	WI H	CAN Bus
7	S51/S	Overload contact
8	S51/S	Overload contact

X4		
1	X11 (1)	External neutral current transf.
2	X11 (2)	External neutral current transf.
3		NOT USED
4		NOT USED
5		NOT USED
6		NOT USED
7		NOT USED
8	V11	External neutral voltage

Wiring diagram: please refer to the chapter "Information for reading circuit-braker T1...T6" of Tmax technical catalogue.

T4-T5 V Ext Ne:
Fixing of optional
External Ne conductor kit to Neutral
Busbar and Trip Unit Settings

A cura del Cliente.
Under the Customer's responsibility.
À la charge du Client.
Vom Kunden beizustellen.
A cargo del Cliente.



See Wiring Diagram §8

EKIP E-LSIG		RANGE	DEFAULT
Trip unit configuration	External neutral sensor	OFF/ON	OFF

Set ON