

Short form catalogue

Power breakers Tmax moulded case circuit breakers

Power breakers Tmax Moulded case circuit breakers















Contents

Overview	4
Distribution solutions	8
Energy measurement and communication solutions	10
Automatic network generator transfer solutions	12
Motor protection solutions	14
Construction characteristics	16
Release characteristics	18
Tmax XT1	20
Tmax XT2	22
Tmax XT4	23
T5	25
T6	26
T7	27
Tmax disconnectors	29
Accessories	
Overview	30

Overview				30
Tmax XT1.	XT4	&	T1 T7	32

Power breakers A single family of moulded case circuit breakers up to 3200 A

Tmax moulded-case circuit-breakers guarantee an extremely high performance level while being progressively smaller in size, simple to install and able to provide increasingly better safety guarantees for the operator.

In addition to being ideal for the secondary distribution of alternmate and direct current, they feature dedicated solutions for all application requirements.

Moulded-case circuit-breakers can be used in low voltage civil and industrial installations with 1 to 3200 A operating current. The Tmax family includes 9 circuit-breaker sizes in three- or four-pole versions:

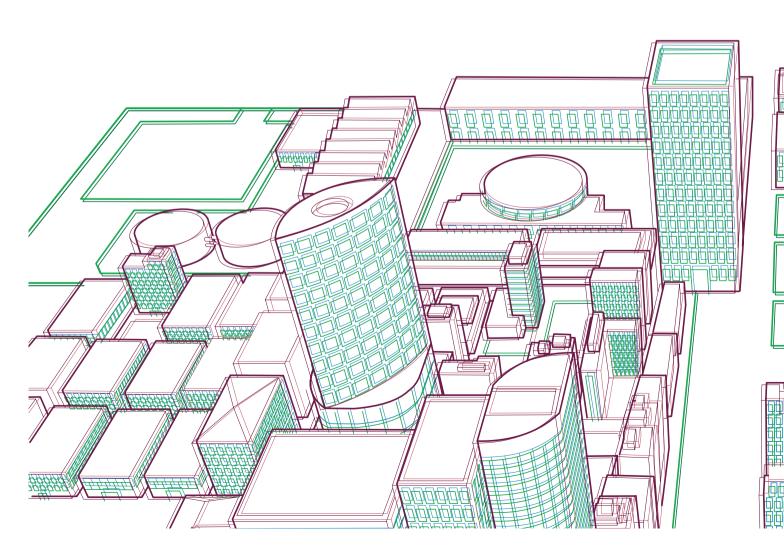
- XT1, XT2, XT3 and XT4 up to 250A;
- T4, T5 and T6 up to 1000A;
- T7 and T8 up to 3200A.

The ultimate short-circuit breaking capacity (Icu) at 415V ranges from 18kA to 200kA, or up to 100kA for 690V.

The following ranges are available:

- Circuit-breakers for AC and DC power distribution;
- Circuit-breakers for zone selectivity;
- Circuit-breakers for motor protection;
- Circuit-breakers for up to 1150V AC and 1000V DC applications;
- Switch-disconnectors.

All Tmax circuit breakers can be enhanced with a vast range of standardized accessories. This convenience not only cuts down on inventory, but creates an extremely flexible and easily managed solution.

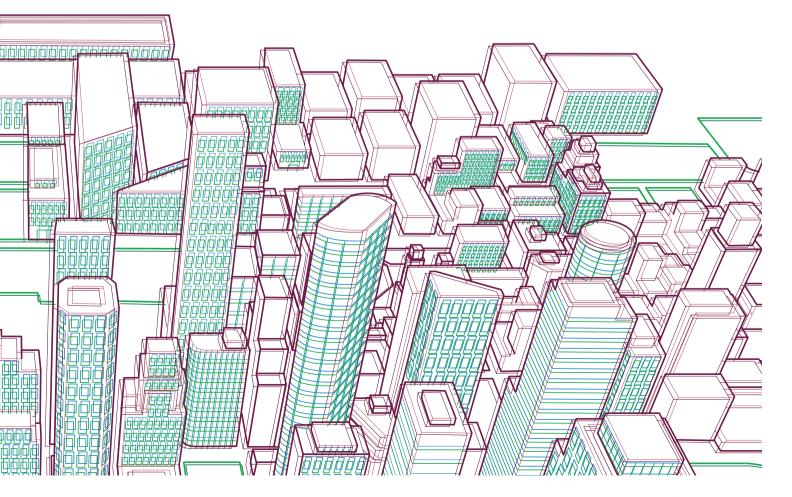


Tmax circuit-breakers can be equipped with thermomagnetic, solely magnetic or electronic trip units;, all of which are interchangeable.

Since assembly instructions are simple, trip units can quickly and easily be replaced; even in the field.

All this makes the circuit-breakers very easy to operate with considerable savings due to rationalized stock management.





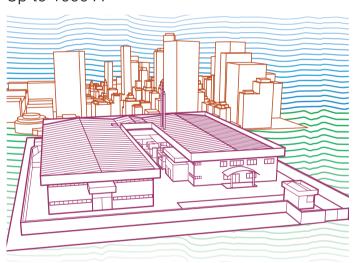
Power breakers Moulded case circuit breakers overview



SACE Tmax

Size	[A]
Rated service voltage, Ue	(AC) 50-60Hz [V]
	DC [V]
Versions	
Breaking capacity according to IEC 60947-2	
Rated ultimate short-circuit breaking capacity, Icu	
Icu @ 220-230-240V 50-60Hz (AC)	[kA]
Icu @ 415V 50-60Hz (AC)	[kA]
Icu @ 690V 50-60Hz (AC)	[kA]
(DC) 500V - 2 poles in series	[kA]
(DC) 500V - 3 poles in series	[kA]
(DC) 750V - 3 poles in series	[kA]
Rated service short-circuit breaking capacity, Ics	
Ics @ 220-230-240V 50-60Hz (AC)	[kA]
Ics @ 415V 50-60Hz (AC)	[kA]
Ics @ 690V 50-60Hz (AC)	[kA]
Mechanical life	[N° Operations]
	[N° Hourly opertions]
Electrical life @ 415V (AC)	[N° Operations]
	[N° Hourly opertions]
Dimensions	3 poles [mm]
(Width/Depth/Height)	4 poles [mm]

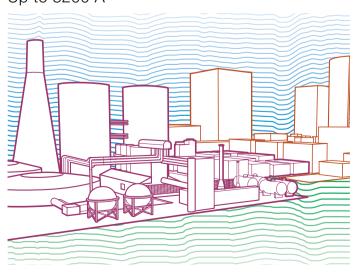
Up to 1000 A



SACE Tmax

Size	[A]
Rated service voltage, Ue	(AC) 50-60Hz [V] (DC) [V]
Versions	
Breaking capacity according to IEC 60947-2	
Rated ultimate short-circuit breaking capacity, Icu	
Icu @ 220-230-240V 50-60Hz (AC)	[kA]
Icu @ 415V 50-60Hz (AC)	[kA]
Icu @ 690V 50-60Hz (AC)	[kA]
(DC) 500V - 2 poles in series	[kA]
(DC) 500V - 3 poles in series	[kA]
(DC) 750V - 3 poles in series	•
Rated service short-circuit breaking capacity, Ics	
lcs @ 220-230-240V 50-60Hz (AC)	[kA]
Ics @ 415V 50-60Hz (AC)	[kA]
lcs @ 690V 50-60Hz (AC)	[kA]
Mechanical life	[N° Operations]
	[N° Hourly opertions]
Electrical life @ 415V (AC)	[N° Operations]
	[N° Hourly opertions]
Dimensions	3 poles [mm]
(Width/Depth/Height)	4 poles [mm]

Up to 3200 A



SACE Tmax

Size	[A]
Rated service voltage, Ue	(AC) 50-60Hz [V]
	(DC) [V]
Versions	
Breaking capacity according to IEC 60947-2	
Rated ultimate short-circuit breaking capacity, Icu	
Icu @ 220-230-240V 50-60Hz (AC)	[kA]
Icu @ 415V 50-60Hz (AC)	[kA]
Icu @ 690V 50-60Hz (AC)	[kA]
(DC) 500V - 2 poles in series	[kA]
(DC) 500V - 3 poles in series	[kA]
(DC) 750V - 3 poles in series	
Rated service short-circuit breaking capacity, Ics	
lcs @ 220-230-240V 50-60Hz (AC)	[kA]
Ics @ 415V 50-60Hz (AC)	[kA]
Ics @ 690V 50-60Hz (AC)	[kA]
Mechanical life	[N° Operations]
	[N° Hourly opertions]
Electrical life @ 415V (AC)	[N° Operations]
	[N° Hourly opertions]
Dimensions	3 poles [mm]
(Width/Depth/Height)	4 poles [mm]

		XT1					XT2			X.	T3		,	XT4		
		160					160			2	:50		1	60/250		
		690					690			6	90			690		
•••••	• • • • • • • • • • • • • • • • • • • •	500			•••••••••••••••••••••••••••••••••••••••	•••••	500	•••••	•	5	00		••••	500 ⁽⁴⁾	•••••	
	Fi	xed, Plug-ir	ו ⁽¹⁾		Fixed, Plug-in, Withdrawable			Fixed,	Plug-in		Fixed, Plug-in, Withdrawable					
В	С	N	S	Н	N	S	Н	L	V	N	S	N	S	L	Н	V
25	40	65	85	100	65	85	100	150	200	50	85	65	85	100	150	200
18	25	36	50	70	36	50	70	120	150	36	50	36	50	70	120	150
3	4	6	8	10	10	12	15	18	20	5	6	10	12	15	20	25/100 ⁽²⁾
-	-	-	-	-	-	-	-	-	-	-	-	36	50	70	85	100
18 ⁽³⁾	25 ⁽³⁾	36 ⁽³⁾	50 ⁽³⁾	70 ⁽³⁾	36	50	70	85	100	36	50	36	50	70	85	100
-	-	-	-	-	-	-	-	-	-	-	-	(4)	(4)	(4)	(4)	(4)
		•						•								
100%	100%	75%(50)	75%	75%	100%	100%	100%	100%	100%	75%	50%	100%	100%	100%	100%	100%
100%	100%	100%	75%	50% (37,5)	100%	100%	100%	100%	100%	75%	50% (27)	100%	100%	100%	100%	100%
100%	100%	100%	75%	50%	100%	100%	100%	75% (15)	75% (15)	75%	50%	100%	100%	100%	100%	75% (20)
		25000					25000	,	,	25	0000			25000		
•••••	• · · · · · · · · · · · · · · · · · · ·	240			•••••••••••••••••••••••••••••••••••••••		240	•••••	•	2	40		•••••	240	••••••	
		8000					8000			80	000			8000		
•••••	• • • • • • • • • • • • • • • • • • • •	120					120			1	20		•••••	120		
	7	76,2x70x13	0			9	0x82,5x1	130		105x7	70x150		105	105x82,5x160		
•••••	1	01,6x70x13	30		•••••	12	20x82,5x	130	•	140x7	70x150		140	x82,5x160)	

		T 4					T 5					T6		
		320					400/630			Ì	6	30/800/100	0	
		690					690					690		
		750	•			-	750	•	•		•	750		
	Fixed, Plu	ug-in, With	drawable			Fixed, F	Plug-in, Withd	rawable			Fixed	, Withdrawa	able (5)	
Ν	S	Н	L	V	Ζ	S	Н	L	V	N	S	Н	L	V (6)
70	85	100	200	200	70	85	100	200	200	70	85	100	200	200
36	50	70	120	200	36	50	70	120	200	36	50	70	100	150
20	25	40	70	80	20	25	40	70	80	20	22	25	30	40
25	36	50	70	100	25	36	50	70	100	20	35	50	65	70
-	-	-	-	-	_	-	-	<u> </u>	<u> </u>	-	<u> </u>	-	-	-
16	25	36	50	70	16	25	36	50	70	16	20	36	50	50
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	100%
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	75%
100%	100%	100%	100%	100%	100%	100%	100% ⁽⁷⁾	100% (8)	100% (8)	75%	75%	75%	75%	75%
		20000					20000					20000		
••••••••		240	• • • • • • • • • • • • • • • • • • • •		•	***************************************	120	***************************************	•		***************************************	120	•••••	
		6000				7000 (4	100 A) - 5000	(630 A)		7000	O (630A) - 5	(A008) 000	- 4000 (10)00A)
•••••••		120	• • • • • • • • • • • • • • • • • • • •	•	•	•	60	• · · · · · · · · · · · · · · · · · · ·	•		• · · · · · · · · · · · · · · · · · · ·	60	••••••	
	105	x 103.5 x	205			14	0 x 103.5 x 2	05			210	x 103.5 x	268	
••••••••	140	x 103.5 x	205	• • • • • • • • • • • • • • • • • • • •		18	6 x 103.5 x 2	05	•		280	x 103.5 x	268	

		T7			T8	i			
	800/1	000/1250	/1600		2000/250	0/3200			
		690			690				
•	••••••	-	•	•	_				
	Fixed	d, Withdrav	vable		Fixe	d			
S	Н	L	V ⁽⁹⁾	X (10)	L	V			
85	100	200	200	170	85	130			
50	70	120	150	170	85	130			
30	42	50	60	75	50	80			
-	-	-	-	-	-	-			
-	-	-	-	-	-	-			
-	-	-	-	-	-	-			
100%	100%	100%	100%	100%	100%	75%			
100%	100%	100%	100%	100%	100%	75%			
100%	75%	75%	75%	100%	100%	75%			
		10000			1500	00			
••••••	••••••	60	•	***************************************	60				
2000	(versioni S	6, H, L) / 3	000 (versio	ne V)	4500(2000A);4000 (25	500A);3000 (3200A)			
•••••	•••••	60	•	•	20				
210 x	154 (leva)	/178 (mot	orizzabile)	x 268	427 x 282	2 x 382			
280 x	154 (leva)	/178 (mot	orizzabile)	x 268	553 x 282	2 x 382			

(1) XT1 plug-in In max=125A

(2) 25kA@690V available for XT4 250; 100kA@690V available for XT4 160

(3) XT1 500V DC 4 poles in series

(a) XT1 500V DC 4 poles in series
 (d) XT4 750V DC ask ABB SACE whether available
 (e) Withdrawable not available for T6 1000A
 (f) V version only available for frame 630A/800A
 (f) 75% for T5 630
 (g) 50% for T5 630
 (e) Only for T7 800/1000/1250
 (f) Only for T7 800

Power breakers Distribution solutions

1 - XT4 250 TMA 3p Thermomagnetic trip unit TMA for AC/DC applications. Thermal protection is adjustable $I_1 = 0.7...1xIn$, magnetic protection is adjustable $I_3 = 5...10xln$.



 ${\bf 2}$ - XT1 160 TMD 3p with RC Sel Thermomagnetic trip unit TMD for AC/DC applications. Thermal protection is adjustable I, = 0.7...1xln, magnetic protection is fixed $I_3 = 10xIn$.



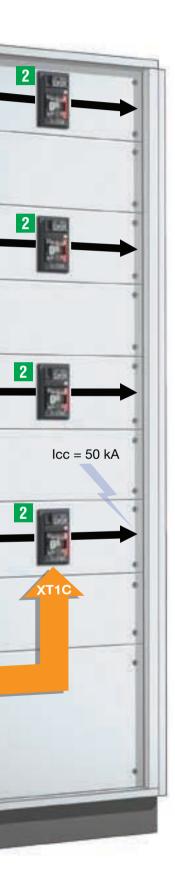
RC SEL is a selective residual current release for assembly in conjunction with the circuit-breaker. It has adjustable current thresholds and 2xl\triangle n adjustable non-actuating times.



3 - T5S 630 PR221DS LS/I 3p Electronic trip unit PR221DS LS/I for AC applications. Features a protection L function against overload with adjustable current, $(I_1 = 0.4...1xln)$, and timing. Protection against short-circuit can be delayed (S), with an adjustable, or instantaneous delay (I). The tripping threshold is adjustable in both cases $(I_2, I_3 = 1...10xIn)$.







Tmax moulded-case circuit-breakers are the ideal solution for all distribution levels, from the main low voltage switchboard to the subswitchboards in the installation. They feature high peak current and specific let-through energy-limiting characteristics that allow the circuits and equipment on the load side to be sized in an optimum way.

The SACE Tmax family of moulded-case circuit-breakers is available with:

- thermomagnetic trip units for protecting direct and alternate current networks. These trip units
 use the physical properties of a bimetal and an electromagnet to detect the overloads and shortcircuits;
- electronic trip units for protecting alternate current networks. These trip units use microprocessor technology to obtain protection functions that make the operations extremely reliable and accurate.

Due to dedicated devices, the SACE Tmax family of moulded-case circuit-breakers allows the insulation state of the installation to be monitored and ensures that people are protected against direct and indirect contacts, in accordance with the reference standards.

Selectivity and back-up

Selective coordination can be used among various protection devices in an installation when it is necessary to minimize the problems associated with faults and abnormal service conditions.

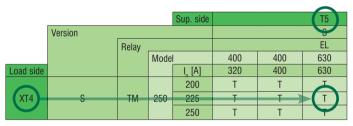
If selective coordination is not a requirement, back-up protection can be used. This method implies that the supply side device provides protection during a short-circuit, allowing the use of a lower breaking capacity device on the load side.

Selectivity

As can be seen from the selectivity tables, there is total selectivity (T), equal to 50 A, between a Tmax XT4S TM and T5S EL.

Advantages:

- Continuity of service
- Rapid identification of the fault zone



Back-up

- As can be seen from the back-up tables, the back-up value between a Tmax XT1C and a T5S is 50 kA.

Advantages

- Financial s									
	•	Supply side	XT1	XT2	XT3	XT4	T5	T6	T7
		TM				S	J		
Load side	Version	I _{cu} [kA]				50	人		
XT1	C	25				-50	50	50	40
		•	•	•					

Circuit-breakers for distribution

Trin unit		Frame [A]									
Trip unit	160	250	400	500	630	800	1000	1600	2500	3200	
TMD (Adjustable Thermal, Fixed Magnetic)	Tmax >	CT1-XT3									
TMA (Adjustable Thermal, Adjustable Magnetic)		Ti	max XT2	-XT4-T5-	T6						
				Tmax >	KT2-XT4-	T4-T5-T6	5-T7-T8				
Residual Current Devices					Fram	e [A]					
nesiduai current devices	160	250	400	500	630	800	1000	1600	2500	3200	
RC Instantaneous	Tmax >	CT1-XT3									
RC Selective	Т	max XT2-	XT4-T4-	T5							
Integrated RC Protection in release							T	max T7-T	8		
RC on outside of switchboard (RCQ)		Tmax XT	1-XT2-XT	4-T4-T5-	T6-T7-T8	}					

Power breakers Solutions for energy measurement and communication

1 - XT4 250 Ekip E-LSIG 3p - Ekip Com, MOE-E

Due to its integrated current and voltage sensors, the Ekip E electronic trip unit can measure both the main electrical quantities and the most advanced Power quality indicators; such as Power Factor, Harmonic distortion and THD.

By means of the trip unit and Ekip Com Communication module, the MOE-E motor operator allows the digital signals from the supervision and control system to be used and converted into power signals for operating the circuit-breaker in the remote mode.





2 - T5 400 PR223DS 3p - M0E-E, VM210

Due the conventional L, S, I and G protection functions, the PR223DS trip unit also allows the main electrical quantities to be measured. Using the VM210 accessory and without the need for voltage transformers, the user can obtain both the current values and the voltage, power and energy values in the local and remote modes via a supervising and control system.





3 - T7M 1600 PR332/P 3p - PR330/V, PR330/D-M

The SACE PR332 trip unit for Tmax T7 provides a sophisticated and flexible protection system. Fitted with the PR330/D-M internal dialogue module, PR332/P becomes a smart protection, measuring and communication device based on the Modbus® RTU protocol. Module PR330/V measures and processes the neutral and phase voltages, then transfers these data to the protection release so that a set of protection and measuring functions can be implemented.



4 - HMI030

This device, which can be installed on the front of the switchboard, comprises a graphic display showing all the measurements and alarms/events of the trip unit. Thanks to its high-level accuracy, the device is a valid substitute for conventional multimeters without the need for current/voltage transformers.

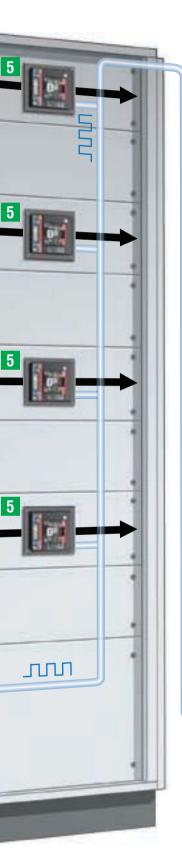


5 - XT2 160 Ekip LSIG 3p - Ekip Com, Ekip Display

Ekip Display is a unit that can be applied to the front of the advanced electronic trip unit and shows the current values, voltage values, alarms and programmed protection and communication parameter settings.







Modbus RTU

A low voltage electrical installation is similar to an industrial process for electricity distribution and needs a supervisory and monitoring system that is able to increase reliability and optimize management.

To achieve integration between conventional plant engineering techniques and control systems for the purpose of running, controlling and monitoring civil and industrial installations in a centralized and automatic way, one can consider the electrical installation as being affected by two flows:

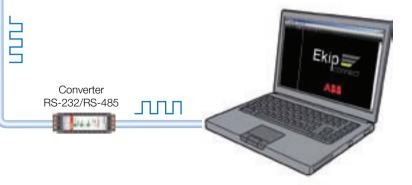
- a main flow (energy flow) formed by the power and energy supplied to the users and loads
 of an installation through the line conductors and control and protection devices;
- an information flow (digital flow) formed by all the information, data and commands required to control and manage the installation.

The supervisory system handles the flow of information that transits through the communication network.

Circuit-breakers for energy measurement and communication

Trin unit	Frame [A]							
Trip unit	160 250 400 500 630 800 1000 1600 2500 3200							
LSI (Advanced electronic trip unit)	Tmax XT2-XT4-T4-T5-T6-T7-T8							
LSIG (Advanced electronic trip unite)	Tmax XT2-XT4-T4-T5-T6-T7-T8							
	Frame [A]							
Functions	Frame [A]							
Functions	Frame [A] 160 250 400 500 630 800 1000 1600 2500 3200							
Functions Energy measurement								

In this type of installation, the circuit-breaker acts as both sensor and actuator. As a sensor, it collects sensitive information and data and sends them to the supervision system. As an actuator, it executes the command received from the control device (e.g. PC or PLC). These characteristics are of particular importance since they meet the growing demands for circuit-breaker integration into latest generation networks (Smart Grid).



Power breakers Automatic network generator transfer solutions

1 - ATS022

The ATS022 device monitors both the supply lines and analyzes phase, frequency imbalance and phase loss. In addiction to the standard control functions, ATS022 allows you to: select the priority line, control a third circuit-breaker, integrate the device into a supervision system with Modbus communication, read and enter the parameters, display measurements and alarms using a graphic display.

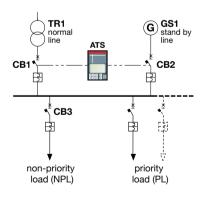


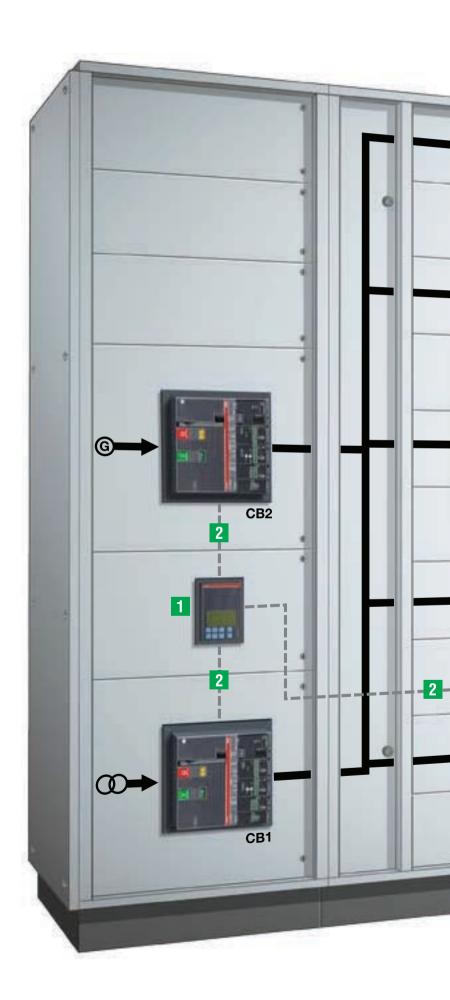
2 - T7 M (CB1) and T7 M (CB2) Interlocked XT4 (CB3) for disconnection Non-priority loads (NPL) To achieve a correct configuration, each circuit-breaker connected

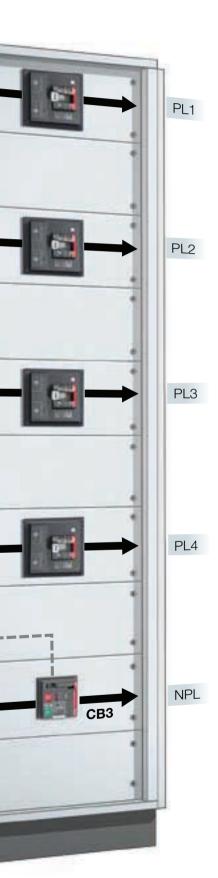
to the ATS must be

accessorized with:

- · mechanical interlock;
- motor operator for opening and closing;
- key lock against sole manual operation for MOE motor operators;
- · state (open/closed) and tripped contact signalling contact;
- · connected contact (for the withdrawable circuit-breaker version).







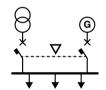
The ATS (Automatic Transfer Switch) is the network-generator transfer unit used in installations where switching the main power line to an emergency one is required in order to ensure power supply to the loads in the case of anomalies in the main line. The new generation of ATS (ATS021 and ATS022) offers the most advanced and complete solutions to guarantee service continuity. The ATS021 and ATS022 can be used both with all the circuitbreakers in the SACE Tmax XT family and with the switch-disconnectors. Reliable, safe and smart, the new ATS family conforms to international standards, is easy to configure and is suitable for all applications.

Fully coordinated systems are ensured, since ATS integrates perfectly with the entire range of

ABB circuit-breakers and switch-disconnectors.

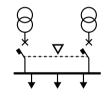
Multi-function logic meets all requirements:

- standard switching logic that allows normal and emergency lines to be monitored, commands to be transmitted to the generator and verification that the circuit-breakers have been switched (ATS021, ATS022);
- control of the two lines, both of which are non-priority (ATS021, ATS022);
- control of a third, bus-tie breaker (ATS022);
- non-priority load disconnection management (ATS022).



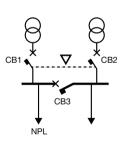
LINE-GENERATOR

If the main network is lost, the AST021 and ATS022 devices switch to the emergency line equipped with a GenSet.



LINE-LINE

Ilf the main network is lost, the AST021 and ATS022 devices switch to a second line used as a standby. Selection of the priority line from the two available lines is allowed by ATS022.



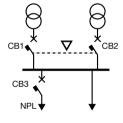
NON-PRIORITY LOAD CONTROL USING A BUS-TIE

If the main network is lost, the ATS022 device switches to a second line used as a standby by disconnecting non-priority loads (NPL) via a bus-tie.

used

oting

аа



NON-PRIORITY LOAD CONTROL ON THE OUTGOING LINE

Ithe main network is lost, the ATS022 device switches to a second line used as a standby by disconnecting non-priority loads (NPL) branched from the main busbar.

Power breakers Motor protection solutions

1 - T8 2000A 3 poles with PR332 LSIG

General circuit-breaker used for protecting the load side circuit-breakers dedicated to motor protection.



2 - T8 800A 3 poles with PR221-1

Circuit-breaker used for motor protection in conjunction with a thermal relay and a contactor. Instantaneous short-circuit protection (I) can be adjusted from 1 to 10xln.



3 - XT4 250A 3 poles with Ekip M-LRIU

Circuit-breaker used for integrated motor protection. Ekip M-LRIU is fitted with the following protections:

- against overload (L): thr eshold adjustable from 0.4...1xln.
 The tripping time is established by choosing the tripping class defined by standard IEC 60947-4-1.
- rotor locking (R): with thr eshold adjustable in OFF or from 3...9x I1, with adjustable tripping time;
- against instantaneous short-circuit (I): with thr eshold adjustable from 6...13xln and instantaneous tripping time;
- against phase imbalance (U): with thr eshold adjustable in ON or OFF.

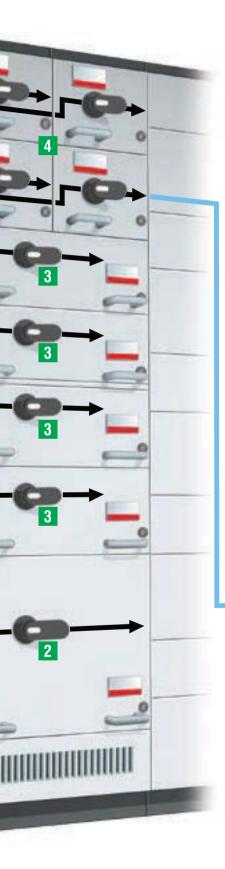


4 - XT2 160A 3 poles with MA

Circuit-breaker used for motor protection in conjunction with a thermal relay and a contactor. Instantaneous short-circuit protection (I) can be adjusted from 6...14xln.







Start-up is a particularly critical phase for the motor itself and for the installation powering it. Even rated service needs to be adequately monitored and protected in order to respond to any faults that might occur. When it comes to direct starting, ABB SACE proposes two different solutions:

- a conventional system with three poles circuit-breaker equipped with a magnetic only trip unit for protection against short-circuits, a thermal relay for protection against overloads and phase failure or imbalance, and a contactor to operate the motor;
- an advanced protection system which integrates all the protection and monitoring functions, and a contactor for operating the motor, in the circuit-breaker itself.

Circuit-breakers for motor protection

Releases	Frame [A]							
neieases	160	250	400	500	630	800	1000	1600
MF-MA (Magnetic only trip unit)	Tmax XT2	-XT3-XT4						
I (Basic Magnetic only trip unit)				Tmax XT2-XT4	4-T5-T6-T7-T8			
LIU (Advanced Magnetic only trip unit)	Tmax XT2-XT4							
LRIU (Advanced Magnetic only trip unit)			Tmax XT2-	XT4-T5-T6				

3 - 200A motor start-up unit Protection and operation are guaranteed by circuitbreaker XT4 Ekip M-LRIU In200A 3p in conjunction with the contactor.



4 - 20A motor start-up unit

Protection and operation are guaranteed by circuit breaker XT2 MA In20A 3p in conjunction with the thermal relay and contactor.





Coordination tables

Suitable devices for protection and motor operation can be identified, given the type of starting, the electrical characteristics of the installation and the characteristics of the motor.

M	otor	МС	CB Contactor			Thermal relay		
Rated power	Rated current	Туре	Magnetic protection setting	Туре	Туре	Seti ran		
Pe	le		[A]			min [A]	max [A]	I max [A]
5.50	11.50	XT2S 160 MF 12.5	175	AF38	EF19-18.9	5.70	18.90	12.50
7.50	15.50	XT2S 160 MF 20	240	AF38	EF19-18.9	5.70	18.90	18.90
9.00	18.60	XT2S 160 MF 20	280	A50	EF45-30	9	30	30
11.00	22.00	XT2S 160 MF 32	320	A50	EF45-30	9	30	30

Power breakers XT construction characteristics

					XT1			-
Size ^(G2.1)		[A]			160			
Poles		[No.]			3, 4			
Rated service voltage, Ue (G2.4)	(AC) 50-60Hz (DC)	[V]			690 500			
Rated insulation voltage, Ui (G2.5)	(DC)	[V] [V]			800	•••••		
Rated impulse withstand voltage, Uimp (G2.6)		[kV]			8	•••••		
/ersions					Fixed, Plug-in			
Breaking capacities according to IEC 60947-2			В	С	N	S	Н	
Rated ultimate short-circuit breaking capacity, Icu ^(62.7) Icu @ 220-230-240V 50-60Hz (AC)		[kA]	25	40	65	85	100	
Icu @ 380V 50-60Hz (AC)		[kA]	<u>23</u> 18	25	36	50	70	
lcu @ 415V 50-60Hz (AC)		[kA]		25	36	50	70	
Icu @ 440V 50-60Hz (AC)		[kA]	18 15	25	36	50	65	
Icu @ 500V 50-60Hz (AC)		[kA]	8	18	30	36	50	
lcu @ 525V 50-60Hz (AC) lcu @ 690V 50-60Hz (AC)		[kA] [kA]	6 3	8 4	22 6	35 8	35 10	
Icu @ 250V (DC) 2 poles in series		[kA]	18	25	36	50	70	
Icu @ 500V (DC) 2 poles in series		[kA]				<u>-</u>		
Icu @ 500V (DC) 3 poles in series(3)		[kA]	18	25	36	50	70	
ated service short-circuit breaking capacity, Ics ^(G2.8) Ics @ 220-230-240V 50-60Hz (AC)		[kA]	100%	100%	75% (50)	75%	75%	
Ics @ 380V 50-60Hz (AC)		[kA]	100%	100%	100%	100%	75%	
Ics @ 415V 50-60Hz (AC)		[kA]	100%	100%	100%	75%	50% (37.5)	
Ics @ 440V 50-60Hz (AC)		[kA]	75%	50%	50%	50%	50%	
lcs @ 500V 50-60Hz (AC) lcs @ 525V 50-60Hz (AC)		[kA]	100%	50% 100%	50% 50%	50% 50%	50% 50%	
Ics @ 690V 50-60Hz (AC)		[kA] ; [kA]	100%	100%	75%	50%	50%	
Ics @ 250V (DC) 2 poles in series		[kA]	100%	100%	100%	100%	75%	
lcs @ 500V (DC) 2 poles in series		[kA]		_	-			
Ics @ 500V (DC) 3 poles in series(3)		[kA]	100%	100%	100%	100%	75%	
lated short-circuit making capacity, Icm ^(62.10) Icm @ 220-230-240V 50-60Hz (AC)		[kA]	52.5	84	143	187	220	
Icm @ 380V 50-60Hz (AC)		[kA]	36	52.5	75.6	105	154	
Icm @ 415V 50-60Hz (AC)		[kA]	36	52.5	75.6	105	154	
Icm @ 440V 50-60Hz (AC)		[kA]	30	52.5	75.6	105	143	
Icm @ 500V 50-60Hz (AC)		[kA]	13.6	36	63	75,6	105	
lcm @ 525V 50-60Hz (AC) lcm @ 690V 50-60Hz (AC)		[kA] [kA]	9.18 4.26	13.6 5.88	46.2 9.18	73.5 13.6	73.5 17	
Breaking capacities according to NEMA-AB1		1,4,7						
@ 240V 50-60Hz (AC)		[kA]	25	40	65	85	100	·····
@ 480V 50-60Hz (AC)		[kA]	8	18	30	36	65	
Itilisation Category (IEC 60947-2) Reference Standard					A IEC 60947-2	•••••		
solation behaviour					V			
lounted on DIN rail					DIN EN 50022	2		
Mechanical life(G2.14)		[No. Operations]			25000			
Electrical life @ 415 V (AC)(G2.13)	l	No. Hourly operations] [No. Operations]			240 8000	•••••		
decinical life & 413 V (AO)	11	No. Hourly operations			120			
Dimensions - Fixed	3 poles	[mm]		7	76.2 x 70 x 13	10		
Nidth x Depth x Height)	4 poles	[mm]		10	01.6 x 70 x 10	30		
otal opening time								-
Circuit-breaker with shunt opening release		[ms]			15			
Circuit-breaker with undervoltage release rip units for power distribution		[ms]			15			
TMD/TMA								
TMD								
Ekip LS/I								
Ekip I Ekip LSI								
Ekip LSIG								
Ekip E						•••••		
ip units for motor protection								
MF/MA Ekip M-I								
Ekip M-LIU								
Ekip M-LRIU								
rip units for generator protection								
TMG								
Ekip G-LS/I							:	
rip units for oversized Neutral Protection								
rip units for oversized Neutral Protection Ekip N-LS/I	3/4 poles 3/4 poles	[kg] [kg]			1.1 / 1.4			

 $^{^{(1)}}$ 90kA@690V only for XT4 160. Available shortly, please ask ABB SACE $^{(2)}$ XT1 plug-in In max=125A

⁽³⁾ XT1 500V DC 4 poles in series (4) XT4 750V DC please ask ABB SACE for availability

 [■] Complete circuit-breaker
 ▲ Loose trip unit

			XT2				Т3	XT4					
			160			250		160 / 250					
			3, 4			3	, 4	3, 4 690					
			690				90		690 500 ⁽⁴⁾ 1000				
			500 1000			: 5	00 00 8 Plug-in	<u> </u>					
			8				8			8			
		Fixed, \	Withdrawable,	Plug-in		Fixed,	Plug-in		Fixed, '	Withdrawable	, Plug-in		
	N	S	Н	L	V	N	S	N	S	Н	L	V	
			,	,	,	,	.,	,	,	,	,	. ,	
	65	85	100	150 120 120 100 60 36 18 85	200 150	50 36 36 25	85	65 36 36 36 30	85 50 50 50 50	100 70 70 65 50	150	200	
	36	50 50	70 70	120	150	36	50	36	50	70	120	150	
	36 36	50	65	120	150	25	50 40	36	50	70	120 120 100	150 150	
	30	36	50	60	150 150 70	20	30	30	36	50	60	70	
	20	25	30	36	50	13	20	20	25	45	50	50	
	10	12	15	18	20	13 5	6	10	12	45 15	20	50 25 (90	
	36	50	30 15 70	85	50 20 100	36	50	36	50	70	85	100	
	-		-					20 10 36 36 36	50 50 50	70 70 70	50 20 85 85 85	100 100	
	36	50	70	85	100	36	50	36	50	70	85	100	
				,		,	.,			,			
	100%	100%	100%	100%	100%	75%	50%	100%	100%	100%	100%	1009	
·	100%	100%	100%	100% 100%	100%	75% 75%	50% (27)	100%	100% 100%	100% 100%	100%	100% 100% 100%	
	100% 100%	100% 100%	100% 100%		100%	750/	50% (27) 50%	100% 100%	100%		100%	1009	
	100%	100%	100%	100% 100%	100%	75% 75%	50%	100%	100%	100% 100%	100% 100%	1009 1009	
	100%	100%	100%	100%	100%	75% 75% 75%	50%	100%	100%	100%	100%	1009	
	100%	100%	100%	100%	75%	75%	50%	100%	100%	100%	100%	75% (2	
	100%	100%	100%	100%	100%	100%	75%	100%	100%	100%	100%	1009	
		-	-			_	<u> </u>	100%	100%	100%	100%	1009 1009 1009	
	100%	100%	100%	- 100%	100%	100%	75%	100%	100% 100%	100% 100%	100% 100%	1009	
	,		,	,	,	,	.,	,	,	,	,	. ,	
	143	187	220	330	440 330	105 75.6	187	143	187 105	220 154	330 264 264	440 330 330	
	75.6	105	154	264	330	75.6	105	75.6	105	154	264	330	
	75.6	105	154	264	330	75.6 52.5	105	75.6	105	154	264	330	
	75.6 63	105 75.6	143 105	132	15/	52.5	04	75.6	100	143	132	15/	
	; 00 ;	10.0	100									104	
	40	52.5	63	75.6	105	26	40	40	52.5	94.5	105	105	
	40 17	52.5	105 63 30	75.6 36	105	26 7.65	84 63 40 13.6	40	52.5 24	94.5 30	220 132 105 40	105 52.5	
	40 17	52.5 24	63 30	330 264 264 220 132 75.6 36	330 330 154 105 40	40 26 7.65	40 13.6	63 40 17	105 75.6 52.5 24	105 94.5 30	105 40	154 105 52.5	
	65	52.5 24 85	30 100		200	50	13.6	65	85	100	40 150	200	
		52.5 24	30 100 65	75.6 36 150 100	105 40 200 150	50 25	13.6 85 35	65 30	75.6 52.5 24 85 36	100 65	40 150 100	200	
	65	52.5 24 85	30 100 65 A		200	50 25	13.6 85 35	65	85	100 65	40 150 100	200	
	65	52.5 24 85	30 100 65 A IEC 60947-2		200	50 25 IEC 6	13.6 85 35 A 0947-2	65	85	100 65 A IEC 60947-2	40 150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2		200	50 25 IEC 6	13.6 85 35 A 0947-2	65	85 36	100 65 A IEC 60947-2	40 150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2		200	50 25 IEC 6	13.6 85 35 A 0947-2	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000	40 150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 DIN EN 50022		200	50 25 IEC 6 DIN El 25	13.6 85 35 A 0947-2 N 50022 0000	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240	40 150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 DIN EN 50022 25000 240 8000		200	50 25 IEC 6 DIN Et 25 2	13.6 85 35 A 0947-2 V V 50022 000 40	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000	40 150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 DIN EN 50022 25000 240 8000 120	150	200	50 25 IEC 6 DIN E1 25 2 8 8	13.6 85 35 A 0947-2 V N 50022 000 440 000	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120	150 100	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 120 120 120	150	200	50 25 IEC 6 DIN E1 25 2 8 8 1 105 x	13.6 85 35 A 0947-2 V N 50022 0000 40 3000 20 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 25000 8000 120 05 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 DIN EN 50022 25000 240 8000 120	150	200	50 25 IEC 6 DIN E1 25 2 8 8 1 105 x	13.6 85 35 A 0947-2 V N 50022 000 440 000	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 120 120 120	150	200	50 25 IEC 6 DIN E1 25 2 8 8 1 105 x	13.6 85 35 A 0947-2 V N 50022 0000 40 3000 20 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 25000 8000 120 05 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 00 x 82.5 x 13 20 x 82.5 x 13	150	200	50 25 IEC 6 DIN E1 25 8 8 1 105 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 0000 40 0000 20 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 00 x 82.5 x 13 20 x 82.5 x 13	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 0000 40 0000 20 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 30 x 82.5 x 13 20 x 82.5 x 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 100 8020 802.5 x 13 15 15 15 15 15	150	200	50 25 IEC 6 DIN EP 25 2 8 8 1 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120 05 882.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 // DIN EN 50022 25000 240 8000 120 120 120 120 15 15 15 15 15	150	200	50 25 IEC 6 DIN EI 25 2 8 1 105 x 140 x	13.6 85 35 A 0947-2 V 150022 0000 40 0000 20 70 x 150 15	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120 05 x 82.5 x 1 40 x 82.5 x 1	150 100 2 2	200	
	65	52.5 24 85 36	30 100 65 A IEC 60947-2 25000 240 8000 120 100 8020 802.5 x 13 15 15 15 15 15	150	200	50 25 IEC 6 DIN EI 25 2 8i 1 105 x 140 x	:: 13.6 :: 85 :: 35 A 0947-2 V N 50022 000 -40 000 20 70 x 150 70 x 150	65	85 36	100 65 A IEC 60947-2 DIN EN 5002 25000 240 8000 120 05 882.5 x 1 40 x 82.5 x 1	150 100 2 2	105 52.5 200 150	

Power distribution MCCBs Tmax release characteristics

esidual curre	ent releases		RC221	RC2	222	RC223
	Sizes		T1-T2-T3	T1-T2-T3	T4 and T5	T3 and T4
	Version		3/4 Poles F	3/4 Poles-F, P, W-	4 Poles-F, P, W -	T3 4 Poles F, T4 250
	Туре		shape "L"	shape "L"	Underneath	Poles-F,P,W - Underneath
	Technology		With microprocessor	With microprocessor	With microprocessor	With microprocessor
	Action		Solenoid	Solenoid	Solenoid	Solenoid
400	Primary operating voltage	[V]	85500	85500	85500	110500
1	Frequency of operation	[Hz]	4566	4566	4566	4566
	Self-supply		•	•	•	•
100 Sept.	Field of test operation	[V]	85500	85500	85500	110500
	Rated service current	[A]	up to 250 A	up to 250 A	up to 500 A	up to 500 A
	Adjustable trip thresholds	[A]	0.03-0.1-0.3-0.5-1-3	0.03- 0.05-0.1-0.3- 0.5-1-3-5 -10	0.03- 0.05-0.1-0.3- 0.5-1-3-5 -10	0.003-0.05-0.1- 0.3-0.5-1
	Adjustable trip times	[s]	instantaneous	instantaneous 0.1- 0.2- 0.3- 0.52- 3	instantaneous 0.1- 0.2- 0.3- 0.52- 3	instantaneous 0.1- 0.2- 0.3- 0.52-
	Tolerance over trip times			± 20%	± 20%	± 20%
	Absorbed power		< 8 W at 400 V AC	< 10 W at 400 V AC	< 10 W at 400 V AC	< 10 W at 400 V AC
	Local trip indication		•	•	•	•
	OS with changeover contact for trip signalling		•	•	•	•
	Input for remote opening		-	•	•	•
	NO contact for signalling pre-alarm		<u> </u>	•	•	•
	NO contact for signalling alarm		_	•	•	•
	Indication of pre-alarm from			<u>:</u>	<u>:</u>	<u>. </u>
	25% I∆n (tolerance ± 3%)		-	•	•	•
	Indication of alarm timing at		<u> </u>			
	75% l∆n (tolerance ± 3%)		<u> </u>	<u> </u>		<u> </u>
I Like	Type A for pulsating alternating current,			•	•	•
	AC direct current		: :		: : :	: :
	Type AE with remote release		<u> </u>	•	•	•
The state of the s	Type B for pulsating current		_	_	_	•
The same of the sa	and direct current		•	<u>:</u>		: :
	Type S selective		-	•	•	•
	Button for insulation test		•	•	•	•
	Power supply from the top and bottom		•	•	•	•
	Assembly with three-pole circuit-breakers		•	•	_	_
	Assembly with four-pole circuit-breakers		•	•	•	•
	Conversion Kit of cb with residual current from fixed to plug-in		_	•	•	•
CQ						
	Characteristics		All 3/4 poles			
	Power supply voltage		80500/48125			
	Frequency of operation	[Hz]	4566	•••••	•	• · · · · · · · · · · · · · · · · · · ·
	Inrush power consumption		100 [VA]/100 [W]	•	•	***************************************
1	Service power consumption		6 [VA]/6 [W]	•		•
	1st range of Adjustments	[A]	0.03-0.05-0.1-0.3-0.5	•	•	• • • • • • • • • • • • • • • • • • • •
	2st range of Adjustments		1- 3-5-10-30	•••••	•••••	•••••
	Adjustment of trip times l∆n	[s]	instantaneous-0.1-0.2-0	.3-0.5-0.7-1-2-3-5	•	
-	Adjustment of pre-alarm threshold	[%] x I∆n	2575% x l∆n	•••••		• • • • • • • • • • • • • • • • • • • •
	Range of use of closed transformers			•	•	***************************************
	Toroidal transformer Ø 60 [mm]		0.0330			
	Toroidal transformer Ø 110 [mm] Toroidal transformer Ø 185 [mm]		0.0330	•••••		•
	Range of use of openable transformers	[A]	0.130	***************************************	•	***************************************
	Toroidal transformer Ø 60 [mm]	[A]	0.0330	•	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
-	Toroidal transformer Ø 110 [mm]		0.0330	•		• • • • • • • • • • • • • • • • • • • •
	Toroidal transformer Ø 185 [mm]		0.130			***************************************
	Pre-threshold pre-alarm indication		Yellow flashing LED 1 ch	angeover contact N.O. 6A-		• • • • • • • • • • • • • • • • • • • •
	Signalling of residual relay trip			two changeover contacts (N.O. N.C. ; N.O.). 6A-250	V AC 50/60 Hz
	Remote opening control		N.O. contact Trip time 1			•
			: 12, manage of 4 todated a	onductors. Maximum lengtl	h: 5 m	
	Connection to the toroidal transformer			on additional maximum ionign	¥3.7	• · · · · · · · · · · · · · · · · · · ·
	Dimensions L x H x D		96 x 96 x 131.5			

PR330/D-M



The PR330/D-M communication module is the solution for connecting the ABB moulded-case circuit-breakers to a Modbus network, for supervision and remote control of the circuit-breaker

PR330/D-M

PR021/K



PR021/K

The SACE PR021/K is able to convert the digital signals provided by the PR222DS/PD, PR223DS, PR223EF, PR331, PR332, PR333 protection units into electric signals by means of normally open electrical contacts, and allow remote signalling of alarms and release trips.

VM210



The VM210 accessory, combined with the protection devices, provides different measurements of the electrical values of the plant. It is able to provide measurements relative to a maximum of 5 electronic releases. The connection distance between the module and the release is a maximum of 15 metres; for distances greater than 1 metre, it is necessary to use a shielded multi-pole connection cable.

HM1030



Can be used with all the protection releases fitted with dialogue, is designed to be installed on the front of the panel. It consists of a graphic display where all the measurements and alarms/events of the release are displayed. Thanks to its high precision, the device can replace traditional multi-meters without the need of current/voltage transformers. The HMI030 is connected directly to the protection release by means of a serial line and requires a 24 V DC power supply.

PR330/V



be added to the trip unit and allow the phase and neutral voltages to be measured and processed, transferring these data to the protection release itself, so that a series of protection functions and measurements can be implemented.

The internal PR330/V module can

PR330/V

BT030



BT030

The BT030 is un device to be connected to the Test connector of PR222DS, PR223DS, PR223EF, PR232/P, PR331/Pand PR332/P. It allows Bluetooth communication between the protection release and a hand-held PC or a laptop with a Bluetooth port. T

PR010/T



The unit SACE PR010/T is an instrument able to carry out the Test, programming and parameter reading functions for the protection units which equip the circuit-breakers. For T4, T5, T6 and T7, the test, programming and parameter reading functions are available. It is possible to store the results of primary interest regarding the tests inside the unit itself and to send them to the PC. In both automatic and manual mode, the SACE PR010/T unit is able to test: – protection functions L, R, I, U (for PR222MP) – monitoring of correct operation of the microprocessor.



Ratings @ 400V

Protection types available

Standard Distribution (3&4 pole)

Type

Settings	
lth	lm

70-100%

	lcu	lcs	
XT1C	25kA	100%	
XT1N	36kA	75%	
XT1S	50kA	75%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

		Current [A]	Product Hierarchy 3000009 Order Code			
Model	lth/In	13	3 Pole	4 Pole		
XT1C	XT1C160R25	450A	1SDA067391R1	1SDA067400R1		
(110	XT1C160R32	450A	1SDA067392R1	1SDA067401R1		
	XT1C160R40	450A	1SDA067393R1	1SDA067402R1		
	XT1C160R50	500A	1SDA067394R1	1SDA067403R1		
	XT1C160R63	630A	1SDA067395R1	1SDA067404R1		
	XT1C160R80	800A	1SDA067396R1	1SDA067405R1		
	XT1C160R100	1000A	1SDA067397R1	1SDA067410R1		
	XT1C160R125	1250A	1SDA067398R1	1SDA067409R1		
	XT1C160R160	1600A	1SDA067399R1	1SDA067641R1		
(T1N	XT1N160R32	450A	1SDA067411R1	1SDA067419R1		
	XT1N160R40	450A	1SDA067412R1	1SDA067647R1		
	XT1N160R50	500A	1SDA067413R1	1SDA067421R1		
	XT1N160R63	630A	1SDA067414R1	1SDA067422R1		
	XT1N160R80	800A	1SDA067415R1	1SDA067423R1		
	XT1N160R100	1000A	1SDA067416R1	1SDA067424R1		
	XT1N160R125	1250A	1SDA067417R1	1SDA067427R1		
	XT1N160R160	1600A	1SDA067418R1	1SDA067428R1		
KT1S	XT1S160R50	500A	1SDA067431R1	1SDA067439R1		
	XT1S160R63	630A	1SDA067432R1	1SDA067440R1		
	XT1S160R80	800A	1SDA067433R1	1SDA067441R1		
	XT1S160R100	1000A	1SDA067434R1	1SDA067442R1		
	XT1S160R125	1250A	1SDA067435R1	1SDA067445R1		
	XT1S160R160	1600A	1SDA067436R1	1SDA067446R1		

Power distribution MCCBs Type Tmax XT2 - N, S, H thermomagnetic



Ratings @ 400V

	lcu	lcs
XT2N	36kA	100%
XT2S	50kA	100%
XT2H	70kA	100%

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Thermomagnetic TMA

		Current [A]	Product Hierarchy 3000009 Order Code			
Model	lth/In	13	3 Pole	4 Pole		
XT2N	XT2N160R32	320A	1SDA067013R1	1SDA067034R1		
X1211	XT2N160R40	400A	1SDA067014R1	1SDA067035R1		
	XT2N160R50	500A	1SDA067015R1	1SDA067036R1		
	XT2N160R63	630A	1SDA067016R1	1SDA067037R1		
	XT2N160R80	800A	1SDA067017R1	1SDA067038R1		
	XT2N160R100	1000A	1SDA067018R1	1SDA067039R1		
	XT2N160R125	1250A	1SDA067019R1	1SDA067042R1		
	XT2N160R160	1600A	1SDA067020R1	1SDA067043R1		
XT2S	XT2S160R32	320A	1SDA067553R1	1SDA067574R1		
/(120	XT2S160R40	400A	1SDA067554R1	1SDA067575R1		
	XT2S160R50	500A	1SDA067555R1	1SDA067576R1		
	XT2S160R63	630A	1SDA067556R1	1SDA067577R1		
	XT2S160R80	800A	1SDA067557R1	1SDA067578R1		
	XT2S160R100	1000A	1SDA067558R1	1SDA067579R1		
	XT2S160R125	1250A	1SDA067559R1	1SDA067582R1		
	XT2S160R160	1600A	1SDA067560R1	1SDA067583R1		
XT2H	XT2H160R32	320A	1SDA067597R1	1SDA067618R1		
/(1211	XT2H160R40	400A	1SDA067598R1	1SDA067619R1		
	XT2H160R50	500A	1SDA067599R1	1SDA067620R1		
	XT2H160R63	630A	1SDA067600R1	1SDA067621R1		
	XT2H160R80	800A	1SDA067601R1	1SDA067622R1		
	XT2H160R100	1000A	1SDA067602R1	1SDA067623R1		
	XT2H160R125	1250A	1SDA067603R1	1SDA067626R1		
	XT2H160R160	1600A	1SDA067604R1	1SDA067627R1		

Power distribution MCCBs Type Tmax XT3 - N, S thermomagnetic & magnetic only



Ratings @ 400V

	lcu	lcs	
XT3N	36kA	100%	
XT3S	50kA	100%	
ХТ3Н	70kA	100%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Thermomagnetic TMA		Current [A]	Product Hierar Order	chy 3000009 Code
Model	lth/In	13	3 Pole	4 Pole
XT3N	XT3N160R63	630A	1SDA068053R1	1SDA068060R1
XI OII	XT3N160R80	800A	1SDA068054R1	1SDA068061R1
	XT3N160R100	1000A	1SDA068055R1	1SDA068062R1
	XT3N160R125	1250A	1SDA068056R1	1SDA068067R1
	XT3N160R160	1600A	1SDA068057R1	1SDA068068R1
	XT3N160R200	2000A	1SDA068058R1	1SDA068069R1
	XT3N160R250	2500A	1SDA068059R1	1SDA068070R1
XT3S	XT3S160R63	630A	1SDA068215R1	1SDA068222R1
71.00	XT3S160R80	800A	1SDA068216R1	1SDA068223R1
	XT3S160R100	1000A	1SDA068217R1	1SDA068224R1
	XT3S160R125	1250A	1SDA068221R1	1SDA068229R1
	XT3S160R160	1600A	1SDA068219R1	1SDA068230R1
	XT3S160R200	2000A	1SDA068220R1	1SDA068231R1
	XT3S160R250	2500A	1SDA068221R1	1SDA068232R1

Electronic Relaease			Product Hiera Order	rchy 3000006 Code
Model	Type	In	3 Pole	4 Pole
XT2N	XT2N160 Ekip LS/I	63A	1SDA067056R1	1SDA067092R1
ALLI	XT2N160 Ekip LS/I	100A	1SDA067057R1	1SDA067093R1
	XT2N160 Ekip LS/I	160A	1SDA067058R1	1SDA067095R1
XT2S	XT2S160 Ekip LS/I	63A	1SDA067802R1	1SDA067835R1
	XT2S160 Ekip LS/I	100A	1SDA067803R1	1SDA067836R1
	XT2S160 Ekip LS/I	160A	1SDA067804R1	1SDA067838R1
XT2H	XT2H160 Ekip LS/I	63A	1SDA067859R1	1SDA067892R1
7(12)	XT2H160 Ekip LS/I	100A	1SDA067860R1	1SDA067893R1
	XT2H160 Ekip LS/I	160A	1SDA067861R1	1SDA067895R1

Power distribution MCCBs Type Tmax XT4 - N, S, H thermomagnetic & magnetic only



Ratings @ 400V

	lcu	lcs
XT4N	36kA	100%
XT4S	50kA	100%
XT4H	70kA	100%

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Thermomagnetic TMA Magnetic Only TMD

		Current [A]			Product Hierarchy 3000009 Order Code	
Model	lth/In	13	%N	3 Pole	4 Pole	
XT4N TMD	XT4N160R20	300A	100	1SDA068080R1	1SDA068094R1	
7(1)(1)	XT4N160R32	320A	100	1SDA068082R1	1SDA068096R1	
XT4N TMA	XT4N160R50	500A	100	1SDA068084R1	1SDA068098R1	
	XT4N160R80	800A	100	1SDA068086R1	1SDA068100R1	
	XT4N160R100	1000A	100	1SDA068087R1	1SDA068101R1	
	XT4N160R125	1250A	100	1SDA068088R1	1SDA068107R1	
	XT4N160R160	1600A	100	1SDA068089R1	1SDA068108R1	
	XT4N250R200	2000A	100	1SDA068090R1	1SDA068109R1	
	XT4N250R250	2500A	100	1SDA068092R1	1SDA068111R1	
XT4S TMD	XT4S160R20	300A	100	1SDA068300R1	1SDA068314R1	
	XT4S160R32	320A	100	1SDA068302R1	1SDA068316R1	
XT4S TMA	XT4S160R50	500A	100	1SDA068304R1	1SDA068318R1	
X140 HVIA	XT4S160R80	800A	100	1SDA068306R1	1SDA068320R1	
	XT4S160R100	1000A	100	1SDA068307R1	1SDA068321R1	
	XT4S160R125	1250A	100	1SDA068308R1	1SDA068327R1	
	XT4S160R160	1600A	100	1SDA068309R1	1SDA068328R1	
	XT4S250R200	2000A	100	1SDA068310R1	1SDA068329R1	
	XT4S250R250	2500A	100	1SDA068312R1	1SDA068331R1	
XT4H TMD	XT4H160R20	300A	100	1SDA068333R1	1SDA068347R1	
711 111 11112	XT4H160R32	320A	100	1SDA068335R1	1SDA068349R1	
XT4H TMA	XT4H160R50	500A	100	1SDA068337R1	1SDA068351R1	
	XT4H160R80	800A	100	1SDA068339R1	1SDA068353R1	
	XT4H160R100	1000A	100	1SDA068340R1	1SDA068354R1	
	XT4H160R125	1250A	100	1SDA068341R1	1SDA068360R1	
	XT4H160R160	1600A	100	1SDA068342R1	1SDA068361R1	
	XT4H250R200	2000A	100	1SDA068343R1	1SDA068362R1	
	XT4H250R250	2500A	100	1SDA068345R1	1SDA068364R1	

Power distribution MCCBs Type Tmax XT4 - N, S, H electronic releases



Ratings @ 400V

	lcu	lcs
XT4N	36kA	100%
XT4S	50kA	100%
XT4H	70kA	100%

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section $% \left(1\right) =\left(1\right) \left(1\right)$

Electronic Release	Electionic nelease		Product Hiera Order	rchy 3000009 Code
Model	Туре	In	3 Pole	4 Pole
T4N LS/I	XT4N160 Ekip LS/I	40A	1SDA068122R1	1SDA068142R1
,	XT4N160 Ekip LS/I	63A	1SDA068123R1	1SDA068144R1
	XT4N160 Ekip LS/I	100A	1SDA068124R1	1SDA068145R1
	XT4N160 Ekip LS/I	160A	1SDA068125R1	1SDA068146R1
	XT4N250 Ekip LS/I	250A	1SDA068126R1	1SDA068147R1
T4N LSI	XT4N160 Ekip LSI	40A	1SDA068132R1	1SDA068153R1
	XT4N160 Ekip LSI	63A	1SDA068133R1	1SDA068154R1
	XT4N160 Ekip LSI	100A	1SDA068134R1	1SDA068155R1
	XT4N160 Ekip LSI	160A	1SDA068135R1	1SDA068156R1
	XT4N250 Ekip LSI	250A	1SDA068136R1	1SDA068157R1
(T4S LS/I	XT4S160 Ekip LS/I	40A	1SDA068471R1	1SDA068491R1
X14S LS/I	XT4S160 Ekip LS/I	63A	1SDA068472R1	1SDA068492R1
	XT4S160 Ekip LS/I	100A	1SDA068473R1	1SDA068493R1
	XT4S160 Ekip LS/I	160A	1SDA068474R1	1SDA068494R1
	XT4S160 Ekip LS/I	250A	1SDA068475R1	1SDA068495R1
XT4S LSI	XT4S160 Ekip LSI	40A	1SDA068481R1	1SDA068501R1
	XT4S160 Ekip LSI	63A	1SDA068482R1	1SDA068502R1
	XT4S160 Ekip LSI	100A	1SDA068483R1	1SDA068503R1
	XT4S160 Ekip LSI	160A	1SDA068484R1	1SDA068504R1
	XT4S160 Ekip LSI	250A	1SDA068485R1	1SDA068505R1
T4H LS/I	XT4H160 Ekip LS/I	40A	1SDA068511R1	1SDA068531R1
XI-III LOJI	XT4H160 Ekip LS/I	63A	1SDA068512R1	1SDA068532R1
	XT4H160 Ekip LS/I	100A	1SDA068513R1	1SDA068533R1
	XT4H160 Ekip LS/I	160A	1SDA068514R1	1SDA068534R1
	XT4H250 Ekip LS/I	250A	1SDA068515R1	1SDA068535R1
CT4H LSI	XT4H160 Ekip LSI	40A	1SDA068521R1	1SDA068541R1
	XT4H160 Ekip LSI	63A	1SDA068522R1	1SDA068542R1
	XT4H160 Ekip LSI	100A	1SDA068523R1	1SDA068543R1
	XT4H160 Ekip LSI	160A	1SDA068524R1	1SDA068544R1
	XT4H250 Ekip LSI	250A	1SDA068525R1	1SDA068545R1
			Product Hiera	rchy 3000006
Γ4N	T4N320 PR221DS-LS	320A	1SDA054117R1	1SDA054121R1
	T4N320 PR221DS-LSI	320A	1SDA054119R1	1SDA054123R1
4S	T4S320 PR221DS-LS	320A	1SDA054125R1	1SDA054129R1
	T4S320 PR221DS-LSI	320A	1SDA054127R1	1SDA054131R1
⁻ 4H	T4H320 PR221DS-LS/I	320A	1SDA054133R1	1SDA054137R1
	T4H320 PR222DS-LSI	320A	1SDA054135R1	1SDA054139R1

Power distribution MCCBs Type Tmax T5 - N, S, H thermomagnetic & electronic releases



Ratings @ 400V

	lcu	lcs	
T5N	36kA	100%	Ī
T5S	50kA	100%	Ī
T5H	70kA	100%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Thermomagnetic TMA

		Current [A]		Product Hierard Order	chy 3000006 Code
Model	lth/In	13	%N	3 Pole	4 Pole
T5N TMA	T5N400R320	3200A	100	1SDA054436R1	1SDA054477R1
	T5N400R400	4000A	100	1SDA054437R1	1SDA054478R1
	T5N630R500	5000A	100	1SDA054456R1	1SDA054487R1
T5S TMA	T5S400R320	3200A	100	1SDA054440R1	1SDA054479R1
	T5S400R400	4000A	100	1SDA054441R1	1SDA054480R1
	T5S630R500	5000A	100	1SDA054461R1	1SDA054489R1
T5H TMA	T5H400R320	3200A	100	1SDA054444R1	1SDA054481R1
	T5H400R400	4000A	100	1SDA054445R1	1SDA054482R1
	T5H630R500	5000A	100	1SDA054465R1	1SDA054491R1

Electronic Release

			Product Hierarchy 3000006 Order Code		
Model	Туре	ln	3 Pole	4 Pole	
T5N LS/I	T5N400 PR221DS-LS/I	320A	1SDA054316R1	1SDA054324R1	
	T5N400 PR221DS-LS/I	400A	1SDA054317R1	1SDA054325R1	
	T5N630 PR221DS-LS/I	630A	1SDA054396R1	1SDA054400R1	
T5N LSI	T5N400 PR222DS/P-LSI	320A	1SDA054320R1	1SDA054328R1	
	T5N400 PR222DS/P-LSI	400A	1SDA054321R1	1SDA054329R1	
	T5N630 PR222DS/P-LSI	630A	1SDA054398R1	1SDA054402R1	
T5S LS/I	T5S400 PR221DS-LS/I	320A	1SDA054332R1	1SDA054340R1	
	T5S400 PR221DS-LS/I	400A	1SDA054333R1	1SDA054333R1	
	T5S630 PR221DS-LS/I	630A	1SDA054404R1	1SDA054408R1	
T5S LSI	T5S400 PR222DS/P-LSI	320A	1SDA054336R1	1SDA054344R1	
	T5S400 PR222DS/P-LSI	400A	1SDA054337R1	1SDA054345R1	
	T5S630 PR222DS/P-LSI	630A	1SDA054406R1	1SDA054410R1	
T5H LS/I	T5H400 PR221DS-LS/I	320A	1SDA054348R1	1SDA054356R1	
	T5H400 PR221DS-LS/I	400A	1SDA054349R1	1SDA054357R1	
	T5H4630 PR221DS-LS/I	630A	1SDA054412R1	1SDA054416R1	
	T5H400 PR222DS/P-LSI	320A	1SDA054352R1	1SDA054360R1	
T5H LSI	T5H400 PR222DS/P-LSI	400A	1SDA054353R1	1SDA054361R1	
	T5H4630 PR222DS/P-LSI	630A	1SDA054414R1	1SDA054418R1	

Power distribution MCCBs Type Tmax T6 - N, S, H, L thermomagnetic electronic release



Ratings @ 400V

	lcu	lcs	
T6N	36kA	100%	
T6S	50kA	100%	
T6H	70kA	100%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see

Thermomagnetic TMA

Thermomagnetic 1	TMA			Product Hierar	rchy 3000006
		Current [A]			Code
Model	lth/In	13	%N	3 Pole	4 Pole
T6N TMA	T6N630R630	6300A	100	1SDA060202R1	1SDA060210R1
1014 114174	T6N800R800	8000A	100	1SDA060214R1	1SDA060222R1
T6S TMA	T6S630R630	6300A	100	1SDA060204R1	1SDA060211R1
100 111111	T6S800R800	8000A	100	1SDA060216R1	1SDA060223R1
T6H TMA	T6H630R630	6300A	100	1SDA060206R1	1SDA060212R1
1011 11111	T6H800R800	8000A	100	1SDA060218R1	1SDA060224R1

Electronic Release

Electronic Release			Product Hiera Order	
Model	Туре	In	3 Pole	4 Pole
TCN LC/L	T6N630 PR221DS-LS/I	630A	1SDA060226R1	1SDA060231R1
T6N LS/I	T6N800 PR221DS-LS/I	800A	1SDA060268R1	1SDA060273R1
T6N P-LSI	T6N630 PR222DS/P-LSI	630A	1SDA060228R1	1SDA060233R1
	T6N800 PR222DS/P-LSI	800A	1SDA060270R1	1SDA060275R1
T6S LS/I	T6S630 PR221DS-LS/I	630A	1SDA060236R1	1SDA060243R1
	T6S800 PR221DS-LS/I	800A	1SDA060278R1	1SDA060285R1
T6S P-LSI	T6S630 PR222DS/P-LSI	630A	1SDA060238R1	1SDA060243R1
103 P-L31	T6S800 PR222DS/P-LSI	800A	1SDA060280R1	1SDA060285R1
T6H LS/I	T6H630 PR221DS-LS/I	630A	1SDA060246R1	1SDA060251R1
1011 L3/1	8T6H00 PR221DS-LS/I	800A	1SDA060289R1	1SDA060294R1
T6H P-I SI	T6H630 PR222DS/P-LSI	630A	1SDA060248R1	1SDA060253R1
10H P-LSI	T6H800 PR222DS/P-LSI	800A	1SDA060291R1	1SDA060296R1

Power distribution MCCBs Type Tmax T7 - S electronic release





Ratings @ 400V

T7S 50kA 100%		icu	103	
	T7S	50kA	100%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Electronic Release

Toggle Operated

Product	Hierar	chy	3000006
	0 1	0 1	

				Code
Model	Current [A]	In	3 Pole	4 Pole
T7S P-LS/I	T7S800 PR231/P-LS/I	800A	1SDA061963R1	1SDA061973R1
	T7S1000 PR231/P-LS/I	1000A	1SDA062738R1	1SDA062746R1
	T7S1250 PR231/P-LS/I	1250A	1SDA062866R1	1SDA062874R1
	T7S1600 PR231/P-LS/I	1600A	1SDA062994R1	1SDA063002R1
T7S P-LSI	T7S800 PR232/P-LSI	800A	1SDA061964R1	1SDA061974R1
173 P-LSI	T7S1000 PR232/P-LSI	1000A	1SDA062739R1	1SDA062747R1
	T7S1250 PR232/P-LSI	1250A	1SDA062867R1	1SDA062867R1
	T7S1600 PR232/P-LSI	1600A	1SDA062995R1	1SDA062995R1
T7S P-LSIG	T7S800 PR331/P-LSIG	800A	1SDA061965R1	1SDA061975R1
170 1 Loid	T7S1000 PR331/P-LSIG	1000A	1SDA062740R1	1SDA062748R1
	T7S1250 PR331/P-LSIG	1250A	1SDA062868R1	1SDA062876R1
	T7S1600 PR331/P-LSIG	1600A	1SDA062996R1	1SDA063004R1
T7S P-LSIG	T7S800 PR332/P-LSIG	800A	1SDA061968R1	1SDA061978R1
170 1 2010	T7S1000 PR332/P-LSIG	1000A	1SDA062743R1	1SDA062751R1
	T7S1250 PR332/P-LSIG	1250A	1SDA062871R1	1SDA062879R1
	T7S1600 PR332/P-LSIG	1600A	1SDA062999R1	1SDA063007R1

Pushbutton Operated

T7S P-LS/I	T7S800 PR231/P-LS/I	800A	1SDA061981R1	1SDA061989R1
170 1 20/1	T7S1000 PR231/P-LS/I	1000A	1SDA062754R1	1SDA062762R1
	T7S1250 PR231/P-LS/I	1250A	1SDA062882R1	1SDA062890R1
	T7S1600 PR231/P-LS/I	1600A	1SDA063010R1	1SDA063018R1
T7S P-LSI	T7S800 PR232/P-LSI	800A	1SDA061982R1	1SDA061990R1
170 1 201	T7S1000 PR232/P-LSI	1000A	1SDA062755R1	1SDA062763R1
	T7S1250 PR232/P-LSI	1250A	1SDA062883R1	1SDA062891R1
	T7S1600 PR232/P-LSI	1600A	1SDA063011R1	1SDA063019R1
T7S P-LSIG	T7S800 PR331/P-LSIG	800A	1SDA061983R1	1SDA061991R1
170 1 2010	T7S1000 PR331/P-LSIG	1000A	1SDA062756R1	1SDA062764R1
	T7S1250 PR331/P-LSIG	1250A	1SDA062884R1	1SDA062892R1
	T7S1600 PR331/P-LSIG	1600A	1SDA063020R1	1SDA063019R1
T7S P-LSIG	T7S800 PR332/P-LSIG	800A	1SDA061986R1	1SDA061994R1
170 1 2010	T7S1000 PR332/P-LSIG	1000A	1SDA062759R1	1SDA062767R1
	T7S1250 PR332/P-LSIG	1250A	1SDA062887R1	1SDA062895R1
	T7S1600 PR332/P-LSIG	1600A	1SDA063015R1	1SDA063023R1

Power distribution MCCBs Type Tmax T7 - H electronic release





Ratings @ 400V

	ICU	ICS	
T7H	70kA	100%	

Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Electronic Release

Toggle Operated

Produc	t Hierarchy	3000006

		Order Code		
Current [A]	In	3 Pole	4 Pole	
T7H800 PR231/P-LS/I	800A	1SDA062642R1	1SDA062650R1	
T7H1000 PR231/P-LS/I	1000A	1SDA062770R1	1SDA062778R1	
T7H1250 PR231/P-LS/I	1250A	1SDA062898R1	1SDA062906R1	
T7H1600 PR231/P-LS/I	1600A	1SDA063026R1	1SDA063034R1	
T7H800 PR232/P-LSI	800A	1SDA062643R1	1SDA062651R1	
T7H1000 PR232/P-LSI	1000A	1SDA062771R1	1SDA062779R1	
T7H1250 PR232/P-LSI	1250A	1SDA062899R1	1SDA062907R1	
T7H1600 PR232/P-LSI	1600A	1SDA063027R1	1SDA063035R1	
T7H800 PR331/P-LSIG	800A	1SDA062644R1	1SDA062652R1	
T7H1000 PR331/P-LSIG	1000A	1SDA062772R1	1SDA062780R1	
T7H1250 PR331/P-LSIG	1250A	1SDA062900R1	1SDA062908R1	
T7H1600 PR331/P-LSIG	1600A	1SDA063028R1	1SDA063036R1	
T7H800 PR332/P-LSIG	800A	1SDA062647R1	1SDA062655R1	
T7H1000 PR332/P-LSIG	1000A	1SDA062775R1	1SDA062873R1	
T7H1250 PR332/P-LSIG	1250A	1SDA062903R1	1SDA062911R1	
T7H1600 PR332/P-LSIG	1600A	1SDA063031R1	1SDA063039R1	
	T7H800 PR231/P-LS/I T7H1000 PR231/P-LS/I T7H1050 PR231/P-LS/I T7H1250 PR231/P-LS/I T7H1600 PR231/P-LS/I T7H800 PR232/P-LSI T7H1000 PR232/P-LSI T7H1250 PR232/P-LSI T7H1600 PR232/P-LSI T7H1600 PR331/P-LSIG T7H1000 PR331/P-LSIG T7H1250 PR331/P-LSIG T7H1600 PR331/P-LSIG T7H1600 PR331/P-LSIG T7H1600 PR332/P-LSIG T7H1000 PR332/P-LSIG T7H1000 PR332/P-LSIG	T7H800 PR231/P-LS/I 800A T7H1000 PR231/P-LS/I 1000A T7H1250 PR231/P-LS/I 1250A T7H1600 PR231/P-LS/I 1600A T7H800 PR232/P-LSI 800A T7H1000 PR232/P-LSI 1000A T7H1250 PR232/P-LSI 1250A T7H1600 PR232/P-LSI 1600A T7H1600 PR232/P-LSI 1600A T7H1600 PR231/P-LSIG 800A T7H1000 PR331/P-LSIG 1000A T7H1000 PR331/P-LSIG 1000A T7H1000 PR331/P-LSIG 1000A T7H1250 PR331/P-LSIG 1600A T7H1600 PR331/P-LSIG 1600A T7H1600 PR332/P-LSIG 1600A T7H1000 PR332/P-LSIG 1600A T7H1000 PR332/P-LSIG 1000A T7H1000 PR332/P-LSIG 1000A	Current [A] In 3 Pole T7H800 PR231/P-LS/I 800A 1SDA062642R1 T7H1000 PR231/P-LS/I 1000A 1SDA062770R1 T7H1250 PR231/P-LS/I 1250A 1SDA062898R1 T7H1600 PR231/P-LS/I 1600A 1SDA063026R1 T7H800 PR232/P-LSI 800A 1SDA062643R1 T7H1000 PR232/P-LSI 1000A 1SDA062771R1 T7H1250 PR232/P-LSI 1250A 1SDA062899R1 T7H1600 PR232/P-LSI 1600A 1SDA06289R1 T7H800 PR331/P-LSIG 800A 1SDA062644R1 T7H1000 PR331/P-LSIG 1000A 1SDA062772R1 T7H1250 PR331/P-LSIG 1250A 1SDA062900R1 T7H1600 PR331/P-LSIG 1600A 1SDA062900R1 T7H1600 PR331/P-LSIG 1600A 1SDA062900R1 T7H1600 PR332/P-LSIG 800A 1SDA062647R1 T7H1000 PR332/P-LSIG 1000A 1SDA062775R1 T7H1000 PR332/P-LSIG 1000A 1SDA062903R1	

Pushbutton Operated

T7H P-LS/I	T7H800 PR231/P-LS/I	800A	1SDA062658R1	1SDA062666R1
1711 1 20/1	T7H1000 PR231/P-LS/I	1000A	1SDA062786R1	1SDA062794R1
	T7H1250 PR231/P-LS/I	1250A	1SDA062914R1	1SDA062922R1
	T7H1600 PR231/P-LS/I	1600A	1SDA063042R1	1SDA063050R1
T7H P-LSI	T7H800 PR232/P-LSI	800A	1SDA062659R1	1SDA062667R1
1711 1 201	T7H1000 PR232/P-LSI	1000A	1SDA062787R1	1SDA062795R1
	T7H1250 PR232/P-LSI	1250A	1SDA062915R1	1SDA062923R1
	T7H1600 PR232/P-LSI	1600A	1SDA063043R1	1SDA063051R1
Г7H P-LSIG	T7H800 PR331/P-LSIG	800A	1SDA062660R1	1SDA062668R1
TTTT I LOIG	T7H1000 PR331/P-LSIG	1000A	1SDA062788R1	1SDA062796R1
	T7H1250 PR331/P-LSIG	1250A	1SDA062916R1	1SDA062924R1
	T7H1600 PR331/P-LSIG	1600A	1SDA063044R1	1SDA063052R1
T7H P-LSIG	T7H800 PR332/P-LSIG	800A	1SDA062663R1	1SDA062671R1
	T7H1000 PR332/P-LSIG	1000A	1SDA062791R1	1SDA062799R1
	T7H1250 PR332/P-LSIG	1250A	1SDA062919R1	1SDA062927R1
	T7H1600 PR332/P-LSIG	1600A	1SDA063047R1	1SDA063055R1

Power distribution MCCBs Type Tmax switch disconnectors





Fixed Pattern Circuit Breaker

Supplied as standard with front bar terminals for busbar - for other terminals see accessories section

Non Automatic Product Hierarchy 3000009 Order Code Model lcw Current [A] lu 3 Pole 4 Pole XT1D 160 F F 2kA 1SDA068208R1 1SDA068209R1 160 XT3D 250 F F 3.6kA 250 1SDA068210R1 1SDA068211R1 XT4D 250 F F 3.6kA 250 1SDA068212R1 1SDA068213R1 Product Hierarchy 3000006 T5D 400 F F 6kA 400 1SDA054599R1 1SDA054600R1 630 T5D 630 F F 6kA 1SDA054601R1 1SDA054602R1 T6D 630 F F 15kA 630 1SDA060343R1 1SDA060344R1 T6D 800 F F 15kA 1000 1SDA060345R1 1SDA060346R1 T6D 1000 F F 15kA 1250 1SDA060594R1 1SDA060595R1 **Toggle Operated** Product Hierarchy 3000006 T7D 1000 F F 25kA 1000 1SDA062032R1 1SDA062033R1 T7D 1250 F F 25kA 1SDA062036R1 1SDA062037R1 1250 T7D 1600 F F 25kA 1600 1SDA062040R1 1SDA062041R1 **Pushbutton Operated** Product Hierarchy 3000006 T7D 1000 M F F 25kA 1000 1SDA062034R1 1SDA062035R1 T7D 1250 M F F 25kA 1250 1SDA062038R1 1SDA062039R1 T7D 1600 M F F 25kA 1600 1SDA062042R1 1SDA062043R1

Power distribution MCCBs Type Tmax accessories





Starting from the fixed version circuit-breaker, all the other versions used for various requirements are obtained by means of mounting conversion kits.

The following are available:

- Kit for converting a fixed circuit-breaker into the moving part of a plug-in
- Circuit-breaker fixed parts for plug-in circuit-breakers
- Conversion kit for the connection terminals

Various accessories are also available:

- Shunt opening releases
- Undervoltage releases
- Auxiliary contacts
- Position contacts
- Advanced contacts on rotary handle
- Front and rear connection terminals
- Bracket for rear fixing on DIN EN 50022 rail
- Front interlocking plate
- Solenoid operating mechanism
- Rotary handle operating mechanism direct on circuitbreaker and transmitted on compartment door
- Three-pole and four-pole residual current releases



Plug-in (P) - Fixed Part	Product Hierarchy 3000009 Order Code	
F = Front terminals	3 pole	4 pole
XT1 (max In=125A)	1SDA068183R1	1SDA068185R1
XT2	1SDA068187R1	1SDA051330R1
XT3	1SDA068192R1	1SDA051332R1
XT4	1SDA068196R1	1SDA054740R1
F = Front terminals	Product Hiera	rchy 3000006
T5 400	1SDA054749R1	1SDA054752R1
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054762R1	1SDA054765R1
HR = Rear flat horizontal terminals	Product Hiera	rchy 3000006
T4	1SDA054739R1	100105171001
	100/1004100111	1SDA054742R1
T5	1SDA054751R1	1SDA054742R1 1SDA054754R1
T5 T5 630 circuit breaker in plug-in version In max = 570A		
	1SDA054751R1 1SDA054764R1	1SDA054754R1
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054751R1 1SDA054764R1	1SDA054754R1 1SDA054767R1
T5 630 circuit breaker in plug-in version ln max $= 570A$ $VR = Rear flat vertical terminals$	1SDA054751R1 1SDA054764R1 Product Hiera	1SDA054754R1 1SDA054767R1 rchy 3000006



Fixed part of withdrawable

Withdrawable (W) - Fixed Part	Product Hierarchy 3000009 Order Code		
F = Front terminals	3 pole	4 pole	
XT2	1SDA068200R1	1SDA068202R1	
F = Front terminals	Product Hiera	rchy 3000006	
T4	1SDA054743R1	1SDA054746R1	
T5 400	1SDA054755R1	1SDA054758R1	
T5 630 circuit breaker in plug-in version In max = 570A	1SDA054768R1	1SDA054771R1	
T6	1SDA060384R1	1SDA060387R1	
T7 V4	1SDA062045R1	1SDA062049R1	
T7 - X1 HR = Rear flat horizontal terminals T4	1SDA054745R1	1SDA054748R1	
HR = Rear flat horizontal terminals T4 T5 400 T6 630 circuit breaker in plug-in version In max = 570A	1SDA054745R1 1SDA054757R1 1SDA054770R1	1SDA054748R1 1SDA054761R1 1SDA054774R1	
HR = Rear flat horizontal terminals T4 T5 400 T5 630 circuit breaker in plug-in version In max = 570A T6 VR = Rear flat horizontal terminals	1SDA054745R1 1SDA054757R1	1SDA054748R1 1SDA054761R1	
HR = Rear flat horizontal terminals T4 T5 400	1SDA054745R1 1SDA054757R1 1SDA054770R1 1SDA060385R1	1SDA054748R1 1SDA054761R1 1SDA054774R1 1SDA060388R1	
HR = Rear flat horizontal terminals T4 T5 400 T5 630 circuit breaker in plug-in version ln max = 570A T6 VR = Rear flat horizontal terminals T4	1SDA054745R1 1SDA054757R1 1SDA054770R1 1SDA060385R1 1SDA054744R1	1SDA054748R1 1SDA054761R1 1SDA054774R1 1SDA060388R1	

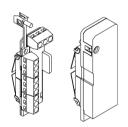
Note: Fixed parts on T7 - T7M circuit breakers with **** terminals are supplied a s standard with terminals mounted in horizontal. To order the terminals mounted vertically, use the extra code 1SDA063521R1



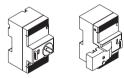
Conversion kit for turning a fixed circuit-breaker into the moving part of a plug-in circuit-breaker



Conversion kit for turning a fixed circuit-breaker into the moving part of a withdrawable circuit-breaker









Conversion of Version	Product Hierarc Order C	
Conversion kit from fixed to moving part of plug-inpart of plug-in	3 pole	4 pole
Kit P MP XT1 (max In=125A)	1SDA066276R1	1SDA066277R1
Kit P MP XT2	1SDA066278R1	1SDA066279R1
Kit P MP XT3	1SDA066280R1	1SDA066281R1
Kit P MP XT4	1SDA066282R1	1SDA066283R1
Conversion kit from fixed to moving part of plug-inpart of plug-in	Product Hierarc	hy 3000006
Kit MP T5 400 P	1SDA054843R1	1SDA054844R1
Kit MP T5 630 P (max In=570A)	1SDA054847R1	1SDA054848R1
Conversion kit from fixed to moving part of withdrawable	Product Hierard	chy 3000009
Kit MP XT2 160 W	1SDA066284R1	1SDA066285R1
Kit MP XT4 250 W	1SDA066286R1	1SDA066287R1
Conversion kit from fixed to moving part of withdrawable	Product Hierard	chy 3000006
Kit MP T5 400 W	1SDA054845R1	1SDA054846R1
Kit MP T5 630 W (max In=570A)	1SDA054849R1	1SDA054850R1
Kit MP T6 630/800 W	1SDA060390R1	1SDA060391R1
Kit MP T7-T7M-X1 W	1SDA062162R1	1SDA062163R1

Sliding Contacts T7-T7M	Product Hierarchy 3000006
Left Sliding Contact MP	1SDA062164R1
Central Sliding Contact MP	1SDA062165R1
Right Sliding Contact MP	1SDA062166R1
Left Sliding Contact FP	1SDA062167R1
Central Sliding Contact FP	1SDA062168R1
Right Sliding Contact FP	1SDA062169R1

Note: Always to be ordered in pairs (block for MP & block for FP) if the circuit breaker is automatic or fitted with electrical accessories withdrawable version. For more information, please contact us.

The sliding contact blocks are needed for T7 in the withdrawable version fitted with electrical accessories or with an electronic release. Their function is to make the electrical connection of the secondary circuits between the moving and fixed part. These blocks operate in pairs: one block must be mounted on the moving part and the other on the fixed part. The following table shows the possible combinations between sliding contact blocks and electrical accessories

Left hand lock	Central lock	Right hand lock
Spring charger motor	PR331	Auxiliary contacts
"Closed springs charged" contact	PR332	Shunt opening release
"Ready to close" contact		Shunt closing release
Release trip signalling		Under voltage release

Terminal Covers for Fixed Part

Product Hierarchy 3000006

TC-FP T4 4p Terminal Covers Fixed/P	1SDA054858R1
TC-FP T5 400/630 4p Terminal Covers Fixed/P	1SDA054861R1

Services releases







SOR for withdrawable





Shunt opening release - SOR	Product Hierarchy 3000009 Order Code
SOR-C XT1XT4 F/P 12 Vdc	1SDA066321R1
SOR-C XT2-XT4 W 12 Vdc	1SDA066328R1
SOR-C XT1.XT4 F/P 24-30 Vac/dc	1SDA066322R1
SOR-C XT2-XT4 W 24-30 Vac/dc	1SDA066329R1
SOR-C XT1XT4 F/P 48-60 Vac/dc	1SDA066323R1
SOR-C XT2-XT4 W 48-60 Vac/dc	1SDA066330R1
SOR-C XT1XT4 F/P 110-127Vac-110-125Vdc	1SDA066324R1
SOR-C XT2-XT4 W 110-127Vac-110-125Vdc	1SDA066331R1
SOR-C XT1XT4 F/P 220-240Vac-220-250Vdc	1SDA066325R1
SOR-C XT2-XT4 W 220-240Vac-220-250Vdc	1SDA066332R1
SOR-C XT1XT4 F/P 380-440 Vac	1SDA066326R1
SOR-C XT2-XT4 W 380-440 Vac	1SDA066333R1
SOR-C XT1XT4 F/P 480-525 Vac	1SDA066327R1
SOR-C XT2-XT4 W 480-525 Vac	1SDA066334R1
Shunt opening release - SOR	Product Hierarchy 3000006
SOR-C T4-T5-T6 12 Vdc	1SDA054869R1
SOR-C T4-T5-T6 4860 Vac/dc	1SDA054871R1
SOR-C T4-T5-T6 110127Vac - 1101	1SDA054872R1
SOR-C T4-T5-T6 220240Vac - 2202	1SDA054072111
SOR-C T4-T5-T6 380440 Vac	1SDA054874R1
SOR-CT4-T5-T6 480500Vac	1SDA054875R1
Shunt opening/closing release - SOR/SCR	Product Hierarchy 3000006
SOR/SCR T7-T7M-X1 24Va.c./d.c.	1SDA062065R1
SOR/SCR T7-T7M-X1 30Va.c./d.c.	1SDA062066R1
SOR/SCR T7-T7M-X1 48Va.c./d.c.	1SDA062067R1
SOR/SCR T7-T7M-X1 60Va.c./d.c.	1SDA062068R1
SOR/SCR T7-T7M-X1 110120Va.c./d.c.	1SDA062069R1
SOR/SCR T7-T7M-X1 240250Va.c./d.c.	1SDA062070R1
SOR/SCR T7-T7M-X1 380400Va.c.	1SDA062071R1
SOR/SCR T7-T7M-X1 415440Va.c.	1SDA062072R1
Under volage release - UVR	Product Hierarchy 3000009
UVR-C XT2-XT4 W 24-30 V ac/dc	1SDA066403R1
UVR-C XT1XT4 F/P 48 V ac/dc	1SDA069065R1
UVR-C XT2-XT4 W 48 V ac/dc	1SDA069066R1
UVR-C XT1XT4 F/P 60 V ac/dc	1SDA06397R1
UVR-C XT2-XT4 W 60 V ac/dc	1SDA066404R1
UVR-C XT1XT4 F/P 110-127V ac-110-125Vdc	1SDA066398R1
UVR-C XT2-XT4 W 110-127V ac-110-125Vdc	1SDA066405R1
UVR-C XT1XT4 F/P 220-240V ac-220-250Vdc	1SDA066399R1
UVR-C XT2-XT4 W 220-240V ac-220-250Vdc	1SDA066406R1
UVR-C XT1XT4 F/P 380-440 V ac	1SDA066400R1
UVR-C XT2-XT4 W 380-440 V ac	1SDA066407R1
UVR-C XT1XT4 F/P 480-525 V ac	1SDA066401R1
UVR-C XT2-XT4 W 480-525 V ac	1SDA066408R1
Under volage release - UVR	Product Hierarchy 3000006
UVR-C T4-T5-T6 24-30 V ac/dc	1SDA054887R1
UVR-C T4-T5-T6 48 V ac/dc	1SDA054888R1
UVR-CT4-T5-T6 60V ac/dc	1SDA054889R1
UVR-C T4-T5-T6 110-127V ac-110-125Vdc	1SDA054890R1
UVR-C T4-T5-T6 220-250 V ac/dc	1SDA054891R1
UVR-C T4-T5-T6 380-440 V ac	1SDA054892R1
UVIITO 14-10-10 300-440 V db	19040341

1SDA054893R1

UVR-C T4-T5-T6 480-500V ac

Services releases

Under volage release - UVR	Order Code
UVR T7-T7M-X1 24Va.c./d.c.	1SDA062087R1
UVR T7-T7M-X130Va.c./d.c.	1SDA062088R1
UVR T7-T7M-X148Va.c./d.c.	1SDA062089R1
UVRT7-T7M-X160Va.c./d.c.	1SDA062090R1
UVR T7-T7M-X1 110120Va.c./d.c.	1SDA062091R1
UVR T7-T7M-X1 240250Va.c./d.c.	1SDA062092R1
UVR T7-T7M-X1 380400Va.c.	1SDA062093R1
UVRT7-T7M-X1415440Va.c.	1SDA062094R1
Time delayed UVR	Product Hierarchy 3000006
UVD T1T6 2430Va.c./d.c.	1SDA051357R1
UVD T1T6 4860Va.c./d.c.	1SDA051358R1
UVD T1T6 110125Va.c./d.c.	1SDA051360R1
UVD T1T6 220250Va.c./d.c.	1SDA051361R1
Electronic Time Delay for UVR	Product Hierarchy 3000006
24/30V E1/6-T7-X1-T8	1SDA038316R1
48V E1/6-T7-X1-T8	1SDA038317R1



Electrical Signals

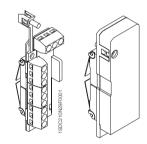
AUX-SC T7M - X1 250Vac/dc spring charged

60V E1/6-T7-X1-T8

110-127V E1/6-T7-X1-T8

220-250V E1/6-T7-X1-T8

Auxiliary contact - AUX	Product Hierarchy 3000009 Order Code
AUX-C 1Q+1SY 250 V XT1XT4 F/P	1SDA066431R1
AUX-C 3Q+1SY 250 V XT2XT4 F/P	1SDA066434R1
AUX-C 3Q+1SY 24 Vdc XT2XT4 F/P	1SDA066448R1
Auxiliary contact - AUX	Product Hierarchy 3000006
AUX-C T4-T5-T6 1Q 1SY 250 Vac/dc	1SDA054910R1
AUX-C T4-T5-T6 3Q 1SY 250 Vac/dc	1SDA054911R1
AUX-C T4-T5-T6 1Q 1SY 400 Vac	1SDA054912R1
AUX-C T4-T5-T6 2Q 400 Vac	1SDA054913R1
AUX-C T4-T5-T6 3Q 1SY 24 Vdc	1SDA054915R1
Cabled contact for signalling trip coil release	
AUX-SA T4-T5 1S51 not for PR221-222-223	1SDA055050R1
AUX-SA T6 1S51 for PR221-222-223	1SDA060393R1
Cabled contact for signalling motor operation T4-T5-T6	
AUX-MOE-C T4-T5-T6 1Q x signal manual/automatic	1SDA054917R1
Auxiliary contact - AUX	
AUX T7 1Q + 1SY 400Va.c.	1SDA062104R1
AUX T7 1Q + 1SY 24Vd.c.	1SDA062103R1
AUX T7-T7M-X1 2Q 400Va.c.	1SDA062102R1
AUX T7-T7M-X1 2Q 24Vd.c.	1SDA062101R1
AUX-SA T7 1 S51 250Va.c.	1SDA062105R1
AUX-SA T7M-X1 1 S51 250Va.c.	1SDA063553R1
Aux contact for ready for ready to close T7M	
AUX-RTC T7M - X1 24Vd.c. ready to close	1SDA062108R1
AUX-RTC T7M - X1 250Va.c./d.c. ready to close	1SDA062109R1
Aux contact for springs charged	
AUX-SC T7M - X1 24Vd.c. spring charged	1SDA062106R1





1SDA062107R1

Product Hierarchy 3000006

1SDA038318R1

1SDA038319R1 1SDA038320R1

Electrical Signals

Early auxiliary contact	Product Hierarchy 3000006 Order Code
AUE T1-T2-T3 2 early contacts	1SDA051374R1
AUE T4-T5 250Vac/dc 2 early contacts	1SDA054925R1
AUE T6 250Vac/dc 2 early contacts	1SDA060394R1
AUE T7 400Va.c. 3 early contacts	1SDA062112R1
Aux position contact	
AUP T2-T3 con inserted signalling	1SDA051372R1
AUP-I T4-T5-T6 con inserted signalling	1SDA054918R1
AUP-I T4-T5-T6 24 Vdc con inserted signalling	1SDA054920R1
AUP-R T4-T5-T6 24 Vdc con withdraw signalling	1SDA054921R1
AUP-R T4-T5-T6 con withdraw signalling	1SDA054919R1
AUP T7-T7M-X1 24Vd.c. (2INS+2TEST+2EXT)	1SDA062110R1
AUP T7-T7M-X1 250Va.c. (2INS+2TEST+2EXT)	1SDA062111R1
Adapters	
ADP 5pin SOR/UVR RC T4-T5-T6 P/W	1SDA055173R1
ADP 6pin AUX T4-T5-T6 P/W	1SDA054922R1
ADP 12pin AUX T4-T5-T6 P/W	1SDA054923R1
ADP 10pin MOE AUE T4-T5-T6 P/W	1SDA054924R1

Mechanical Signals	Product Hierarchy 3000006
Test Extension	Order Code
Trip Reset 110130Vac/dc T7 pushbutton operated	1SDA062118R1
Trip Reset 200240Vac/dc T7 pushbutton operated	1SDA062119R1

Operation Counter T7 pushbutton operated 1SDA062160R1

Motor Operators Stored energy motor operator MOE	Product Hierarchy 3000009 Order Code
MOE XT2-XT4 24 Vdc	1SDA066463R1
MOE XT2-XT4 4860 Vdc	1SDA066464R1
MOE XT2-XT4 110125 Vac/dc	1SDA066465R1
MOE XT2-XT4 220250 Vac/dc	1SDA066466R1
MOE XT2-XT4 380 Vac	1SDA066467R1
MOE XT2-XT4 480525 Vac	1SDA066468R1

Stored energy motor operator MOE	Product Hierarchy 3000006
MOE T4-T5 24 Vdc	1SDA054894R1
MOE T4-T5 4860 Vdc	1SDA054895R1
MOE T4-T5 110125 Vac/dc	1SDA054896R1
MOE T4-T5 220250 Vac/dc	1SDA054897R1
M0E T4-T5 380 Vac	1SDA054898R1
MOE T6 24 Vdc	1SDA060395R1
MOE T6 4860Vdc	1SDA060396R1
MOE T6 110125 Vac/dc	1SDA060397R1
MOE T6 220250 Vac/dc	1SDA060398R1
MOE T6 380Vac	1SDA060399R1









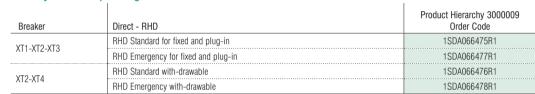
MOE - Motor operator

Motor Operators

Motor operator with direct action MOD	Product Hierarchy 3000009 Order Code
MOD XT1-XT3 24 Vdc	1SDA066457R1
MOD XT1-XT3 4860 Vdc	1SDA066458R1
MOD XT1-XT3 110125 Vac/dc	1SDA066459R1
MOD XT1-XT3 220250 Vac/dc	1SDA066460R1
MOD XT1-XT3 380 Vac	1SDA066461R1
MOD XT1-XT3 480525 Vac	1SDA066462R1

Spring charging motor	Product Hierarchy 3000006
Spring charging motor T7M-X1 2430Vac/dc	1SDA062113R1
Spring charging motor T7M-X14860Vac/dc	1SDA062114R1
Spring charging motor T7M-X1 100130Vac/	1SDA062115R1
Spring charging motor T7M-X1 220250 Vac	1SDA062116R1
Spring charging motor T7M-X1 380415Vac	1SDA062117R1

Rotary Handle Operating Mechanism



		Product Hierarchy 3000006
	RHD Standard for fixed and plug-in	1SDA054926R1
T4-T5 RHD Emergency for fixed and plug-in RHD Standard with-drawable	RHD Emergency for fixed and plug-in	1SDA054927R1
	RHD Standard with-drawable	1SDA054928R1
	RHD Emergency with-drawable	1SDA055234R1
	RHD Standard for fixed and plug-in	1SDA060405R1
RHD Emergency for fixed and plug-in	RHD Emergency for fixed and plug-in	1SDA060406R1
10	RHD Standard with-drawable RHD Emergency with-drawable	1SDA060407R1
		1SDA060408R1
Т7	RHD Standard for fixed and plug-in	1SDA062120R1
	RHD Emergency for fixed and plug-in	1SDA062121R1
Toggle operated	RHD Standard with-drawable	1SDA062120R1
RHD Emerge	RHD Emergency with-drawable	1SDA062121R1

	RHD Emergency with-drawable	1SDA062121R1
Breaker	Door Mounted Extended - RHE	Product Hierarchy 3000009
XT1-XT2-XT3	RHE Standard for fixed and plug-in	1SDA066479R1
	RHE Emergency for fixed and plug-in	1SDA066481R1
XT2-XT4	RHE Standard with-drawable	1SDA066480R1
	RHE Emergency with-drawable	1SDA066482R1

	RHE Emergency with-drawable	15DAU66482R1
		Product Hierarchy 3000006
	RHE Standard for fixed and plug-in	1SDA054929R1
T.4.T.5	RHE Emergency for fixed and plug-in	1SDA054930R1
T4-T5	RHE Standard with-drawable	1SDA054933R1
	RHE Emergency with-drawable	1SDA054934R1
T6	RHE Standard for fixed and plug-in	1SDA060409R1
	RHE Emergency for fixed and plug-in	1SDA060410R1
	RHE Standard with-drawable	1SDA060411R1
	RHE Emergency with-drawable	1SDA060412R1
T7 Toggle operated	RHE Standard for fixed and plug-in	1SDA062122R1
	RHE Emergency for fixed and plug-in	1SDA062123R1
	RHE Standard with-drawable	1SDA062122R1
	RHE Emergency with-drawable	1SDA062123R1



Direct handle



Transmitted handle

Fixed padlock



Key lock on the circuit-breaker



Key lock on the handle



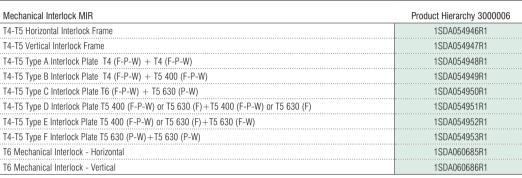
Key lock on the motor

Operating mechanism and locks

Padlock lever lock PPL	Breaker	Product Hierarchy 3000009 Order Code
PLL - removable lock with padlocks in open position	2.04.0.	1SDA066588R1
PLL - fixed lock with padlocks in open position	XT1-XT3	1SDA066589R1
PLL - fixed lock with padlocks in open/close position		1SDA066591R1
PLL - fixed lock with padlocks in open position		1SDA066590R1
PLL - fixed lock with padlocks in open/close position	XT2-XT4	1SDA066592R1
Padlock lever lock PPL	·	Product Hierarchy 3000006
PLL - padlock pushbutton in open position	T7 pushbutton opp.	1SDA062151R1
PLL - padlock lever in open position	T7 toggle	1SDA062150R1
Key locks KLC		Product Hierarchy 3000009
KLC BL.Ronis locked in open position	XT1	1SDA066593R1
KLC BL.Ronis locked in open position	XT2-XT4	1SDA066599R1
CLC BL.Ronis locked in open position	XT3	1SDA066605R1
Key locks KLC		Product Hierarchy 3000006
(LC-D key lock service operation		1SDA062134R1
KLC key lock Ronis operater adapter	T7	1SDA062139R1
KLC key lock Profalux operater adapter		1SDA062140R1
Key locks front/rotary handle KLF		Product Hierarchy 3000006
KLF-D different keys		1SDA054939R1
KLF-S same keys	T4-T5	1SDA054940R1
KLF-D dfferent keys		1SDA060658R1
(LF-S key lock EQ.20005	T6	1SDA060659R1
Key locks extended rotary handle shaft		Product Hierarchy 3000009
•	XT1-XT2-XT3	0ETLZW16
Castell lock adapter	XT4-T7	0ETLZW5
Key locks motor operator MOL		Product Hierarchy 3000006
401 5 177	T4-T5	1SDA054904R1
MOL-D different keys	T6	1SDA060611R1
10.0	T4-T5	1SDA054905R1
MOL-S same key for different groups (N.20005)	T6	1SDA060612R1
	T4-T5	1SDA054909R1
MOL-M manual operation same key	T6	1SDA060616R1
Key lock in open position on the circuit breaker pushbutton operate	ed	Product Hierarchy 3000006
KLC-D key lock service operation		1SDA062141R1
KLC Ronis-Profalux	T7 Pushbutton opp.	1SDA062146R1
Key lock on handle		Product Hierarchy 3000009
RHL Ronis dfferent keys	VT4 VT4	1SDA066617R1
RHL Ronis Type A	XT1-XT4	1SDA066618R1
Key lock in racked-in/test isolated/rack-out position		Product Hierarchy 3000006
Arrangement for Ronis key lock - can be equipped with two different ke	ys T7	1SDA063567R1
Arrangement for Profalux key lock T7	······	1SDA063570R1
Arrangement for Castell key lock T7		1SDA063568R1
Arrangement for Kirk key lock T7		1SDA063569R1
Front lock device		Product Hierarchy 3000009
FLD XT2-XT4 F/P		1SDA066635R1
-LD X12-X14 F/P		
·		1SDA066636R1
FLD XT2-XT4 W		1SDA066636R1 1SDA054944R1
FLD XT2-XT4 W FLD T4-T5 F/P		1SDA054944R1
FLD XT2-XT4 W FLD T4-T5 F/P Front lock device		1SDA054944R1 Product Hierarchy 3000006
FLD X12-X14 F/P FLD X12-X14 W FLD T4-T5 F/P Front lock device FLD T4-T5 W FLD T6 F/P		1SDA054944R1

Operating mechanism and locks





Note: To interlock two T4-T5 circuit breakers you have to order a frame unit interlock and plate (for type A or B or C or D or E or F) interlock

Mechanical Interlock with cables	Product Hierarchy 3000006
Kit cable mechanical Interlock HR/VR T7-T7M	1SDA062127R1
Plate mechanical Interlock T7-T7M back plate fixed	1SDA062129R1
Plate mechanical Interlock T7M F floor fixed	1SDA062130R1
Plate mechanical Interlock T7-T7M W	1SDA062131R1

Residual Current Devices	Product Hierarchy 3000009
RC Sel x XT1 3p F	1SDA067123R1
RC Sel x XT1 4p F	1SDA067125R1
RC Sel x XT2 4p F	1SDA067126R1
RC Sel x XT3 3p F	1SDA067128R1
RC Sel x XT3 4p F	1SDA067130R1
RC Sel x XT4 4p F	1SDA067131R1
	Product Hierarchy 3000006
RC 222/5 for T5 4p F	1SDA054955R1



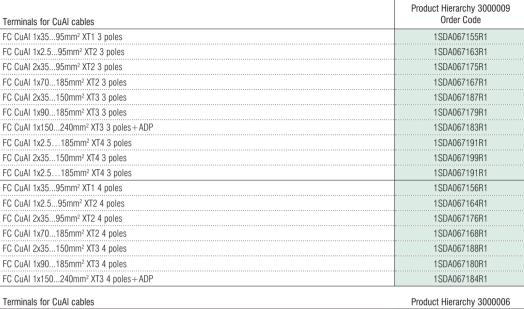
0. De
- 6 7 0
THE REAL PROPERTY.
BC Sel

Terminal cover

Shrouds and terminals

High shields	Product Hierarchy 3000009 Order Code
KT1 3P High Terminal shields (Pair) - HTC	1SDA066664R1
KT1 4P High Terminal shields (Pair) - HTC	1SDA066665R1
T2 3P High Terminal shields (Pair) - HTC	1SDA066666R1
T2 4P High Terminal shields (Pair) - HTC	1SDA066667R1
T3 3P High Terminal shields (Pair) - HTC	1SDA066668R1
(T3 4P High Terminal shields (Pair) - HTC	1SDA066669R1
(T4 3P High Terminal shields (Pair) - HTC	1SDA066670R1
(T4 4P High Terminal shields (Pair) - HTC	1SDA066671R1
ligh shields	Product Hierarchy 3000006
75 3P High Terminal Shields (Pair)	1SDA054960R1
5 4P High Terminal Shields (Pair)	1SDA054961R1
6 3P High Terminal Shields (Pair)	1SDA014040R1
6 4P High Terminal Shields (Pair)	1SDA014041R1
7/T7M 3P High Terminal Shields (Pair)	1SDA063091R1
77/T7M 4P High Terminal Shields (Pair)	1SDA063092R1
ow shields	Product Hierarchy 3000009
(T1 3P Low Terminal shields (Pair) - HTC	1SDA066655R1
(T1 4P Low Terminal shields (Pair) - HTC	1SDA066656R1
(T2 3P Low Terminal shields (Pair) - HTC	1SDA066657R1
(T2 4P Low Terminal shields (Pair) - HTC	1SDA066659R1
CT3 3P Low Terminal shields (Pair) - HTC	1SDA066660R1
CT3 4P Low Terminal shields (Pair) - HTC	1SDA066661R1
CT4 3P Low Terminal shields (Pair) - HTC	1SDA066662R1
(T4 4P Low Terminal shields (Pair) - HTC	1SDA066663R1
_ow shields	Product Hierarchy 3000006
75 3P Low Terminal Shields (Pair)	1SDA054968R1
5 4P Low Terminal Shields (Pair)	1SDA054969R1
6 3P Low Terminal Shields (Pair)	1SDA014038R1
6 4P Low Terminal Shields (Pair)	1SDA014039R1
7/T7M 3P Low Terminal Shields (Pair)	1SDA063093R1
T7/T7M 4P Low Terminal Shields (Pair)	1SDA063094R1
Phase barriers	Product Hierarchy 3000006
PB100 T4-5-T7-X1 3p PART.DIV.PHA.LOW	1SDA054970R1
PB100 T4-5-T7-X1 4p PART.DIV.PHA.LOW	1SDA054971R1
PB200 T4-5-7-T7M-X1 3p PART.DIV.PHA.HIGH	1SDA054972R1
PB200 T4-5-7-T7M-X1 4p PART.DIV.PHA.HIGH	1SDA054973R1
Extended front terminals	Product Hierarchy 3000009
(IT EF XT1 3 poles	1SDA066865R1
(IT EF XT2 3 poles	1SDA066869R1
(IT EF XT3 3 poles	1SDA066873R1
(IT EF XT4 3 poles	1SDA066877R1
(IT EF XT1 4 poles	1SDA066866R1
(IT EF XT2 4 poles	1SDA066870R1
(IT EF XT3 4 poles	1SDA066874R1
KIT EF XT4 4 poles	1SDA066878R1
Extended front terminals	Product Hierarchy 3000006
(IT EF T5 3 poles	1SDA055036R1
(IT EF T6 630 3 poles	1SDA023379R1
(IT EF T6 800 3 poles	1SDA023383R1
(IT EF T7-T7M-X1 3 poles	1SDA063103R1
(IT EF T5 4 poles	1SDA055037R1
(IT EF T6 630 4 poles	1SDA023389R1
(IT EF T6 800 4 poles	1SDA023393R1
1 10 000 1 polo0	100/1020030111

Shrouds and terminals



FC CuAl 1x150240mm² XT3 4 poles+ADP	1SDA067184R1
Terminals for CuAl cables	Product Hierarchy 3000006
FC CuAl 2x120mm ² T5 400 3 poles	1SDA055028R1
FC CuAl 1x240mm² T5 400 3 poles	1SDA055020R1
FC CuAl 1x300mm² T5 400 3 poles	1SDA055024R1
FC CuAl 2x240mm ² T5 630 3 poles	1SDA055032R1
FC CuAl 2x240mm² T6 630-S6 630 3 poles	1SDA023380R1
FC CuAl 3x185mm ² T6 800-S6 800 3 poles	1SDA023384R1
FC CuAl 4x150mm ² T6 1000 3 poles	1SDA060687R1
FC CuAl 4x240mm ² T7-T7M 1250 3 poles	1SDA063112R1
FC CuAl 2x120mm² T5 400 4 poles	1SDA055029R1
FC CuAl 1x240mm ² T5 400 4 poles	1SDA055021R1
FC CuAl 1x300mm ² T5 400 4 poles	1SDA055025R1
FC CuAl 2x240mm² T5 630 4 poles	1SDA055033R1
FC CuAl 2x240mm ² T6 630-S6 630 4 poles	1SDA023390R1
FC CuAl 3x185mm ² T6 800-S6 800 4 poles	1SDA023394R1
FC CuAl 4x150mm² T6 1000 4 poles	1SDA060688R1
FC CuAl 4x240mm ² T7-T7M 1250 4 poles	1SDA063113R1

Front terminals	Product Hierarchy 3000009
KIT F XT1 3 poles	1SDA066849R1
KIT F XT2 3 poles	1SDA066853R1
KIT F XT3 3 poles	1SDA066857R1
KIT F XT4 3 poles	1SDA066861R1
KIT F XT1 4 poles	1SDA066850R1
KIT F XT2 4 poles	1SDA066854R1
KIT F XT3 4 poles	1SDA066858R1
KIT F XT4 4 poles	1SDA066862R1

Front terminals	Product Hierarchy 3000006
KIT F T5 3 poles	1SDA055012R1
KIT F T6 630/800 - S6 630/800 3 poles	1SDA060421R1
KIT F T7-T7M 3 poles	1SDA063099R1
KIT F T5 4 poles	1SDA055013R1
KIT F T6 630/800 - S6 630/800 4 poles	1SDA060422R1
KIT F T7-T7M 4 poles	1SDA063100R1



Shrouds and terminals Extended spread front terminals	Product Hierarchy 3000009 Order Code
KIT ES XT2 3 poles	1SDA066893R1
KIT ES XT3 3 poles	1SDA066897R1
KIT ES XT4 3 poles	1SDA066901R1
KIT ES XT2 4 poles	1SDA066894R1
KIT ES XT3 4 poles	1SDA066898R1
KIT ES XT4 4 poles	1SDA066902R1
·	
Extended spread front terminals	Product Hierarchy 3000006
KIT ES T5 3 poles	1SDA055040R1
KIT ES UP T6 - S6 3 poles	1SDA050692R1
KIT ES LO T6 - S6 3 poles	1SDA050704R1
KIT ES T7-T7M 3 poles UPP	1SDA063107R1
KIT ES T7-T7M 3 poles LOW	1SDA063108R1
KIT ES T5 4 poles	1SDA055041R1
KIT ES T6 - S6 4 poles	1SDA050693R1
KIT ES T7-T7M 4 poles	1SDA063109R1
Terminals for Cu cables	Product Hierarchy 3000009
KIT FC Cu XT2 3 poles	1SDA066909R1
KIT FC Cu XT3 3 poles	1SDA066913R1
KIT FC Cu XT4 3 poles	1SDA066917R1
KIT FC Cu XT2 4 poles	1SDA066910R1
KIT FC Cu XT3 4 poles	1SDA066914R1
KIT FC Cu XT4 4 poles	1SDA066918R1
Terminals for Cu cables	Product Hierarchy 3000006
KIT FC Cu 1x240mm2 T5 400 3 poles	1SDA055016R1
Kit FC Cu 2x240mm2 T5 630 3 poles	1SDA055364R1
KIT RC 2x150mm2 T6 630 3 poles	1SDA023381R1
KIT 1/2 3p F F>F RC T6 800	1SDA023385R1
KIT FC Cu 1x240mm2 T5 400 4 poles	1SDA055017R1
Kit FC Cu 2x240mm2 T5 630 4 poles	1SDA055365R1
KIT RC 2x150mm2 T6 630 4 poles	1SDA023391R1
KIT RC 3x240mm2 T6 800 4 poles	1SDA023395R1
Rear adjustable terminals	Product Hierarchy 3000009
KIT R XT2 3 poles	1SDA066941R1
KIT R XT3 3 poles	1SDA066945R1
KIT R XT4 3 poles	1SDA066949R1
KIT R XT2 4 poles	1SDA066942R1
KIT R XT3 4 poles	1SDA066946R1
KIT R XT4 4 poles	1SDA066950R1
Rear adjustable terminals	Product Hierarchy 3000006
KIT R T5 3 poles	1SDA055044R1
KIT R T6 3 poles	1SDA060425R1
KIT R T7-T7M 3 poles	1SDA063116R1
KIT R T5 4 poles	1SDA055045R1
KIT R T6 4 poles	1SDA060426R1
Rear horizontal connectors	Product Hierarchy 3000006
KIT HR T7-T7M 3 poles	1SDA063120R1
KIT HR T7-T7M 4 poles	1SDA063121R1
Rear vertical connectors	Product Hierarchy 3000006
KIT VR T7-T7M 3 poles	1SDA063124R1
KIT VR T7-T7M 4 poles	1SDA063125R1



Ekip LED Meter

Front display unit	Product Hierarchy 3000006 Order Code
FDU T4-T5 front display unit x PR222-223	1SDA055051R1
FDU T6 front display unit x PR222-PR223	1SDA060429R1



ATS021

Automatic transfer switches	Product Hierarchy 3000006
ATS021 DISP.COMMUT.AUT.S/D MULTI TENS	1SDA065523R1
ATS022 DISP.COMMUT.AUT.C/D CONT.AV.M/TEN	1SDA065524R1





Test and Configurator Unit	Product Hierarchy 3000009
Ekip TT XT2-XT4	1SDA066988R1
Ekip T&P	1SDA066989R1

© Copyright ABB Ltd 9AKK106354A1408

Contact us

ABB Ltd

Tower Court Foleshill Enterprise Park Courtaulds Way Coventry CV6 5NX

Tel: 0333 999 9900 Fax: 0333 999 9901

Email: LV.Enquiries@gb.abb.com

Twitter: @ABBUKLVP

www.abb.co.uk/lowvoltage

Note: We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB Ltd does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB Ltd.

Copyright © 2015 ABB Ltd All rights reserved