

BUYLOG SECTION 6

# Molded Case Circuit Breakers





# Table of contents

	<b>Industrial circuit breakers</b>		<b>Ordering codes for Tmax XT accessories</b>
6-4	How to order	6-124	Execution and installation
6-5	Features	6-128	Power connection
6-6	Quick reference guide	6-135	Signaling
		6-137	Operating mechanism
	<b>Formula A circuit breakers for power distribution</b>	6-141	Remote control
6-13	General characteristics	6-149	Safety and protection
6-14	Thermal-magnetic trip unit	6-159	Interlocks and switching devices
		6-160	Residual current devices
	<b>Tmax XT circuit breakers</b>	6-161	Accessories for electronic trip units
6-15	Quick reference guide – circuit breakers for AC distribution		
6-19	Quick reference guide – circuit breakers for DC distribution	<b>Spectra RMS circuit breakers</b>	
6-22	Characteristics - molded case switches	6-170	SE150 frame
6-24	Coordination – molded case switches	6-172	SF250 frame
6-26	Current limiting – circuit breakers	6-174	SG600 frame
6-28	Characteristics – circuit breakers for motor protection	6-177	SK1200 frame
	<b>Q-Line ordering tables</b>		<b>Spectra RMS circuit breakers with microEntelliGuard trip units</b>
6-30	Plug-in circuit breakers	6-179	Overview and features
6-35	Bolt-on circuit breakers	6-180	Trip unit characteristics
6-40	Cable-in cable-out (lug-lug) circuit breakers	6-181	Ordering instructions
6-43	DIN-rail mount circuit breakers	6-182	Trip unit features and benefits
6-44	Molded case switches	6-183	SG600 product number structure
6-45	Accessories	6-184	SG600 ordering tables
		6-185	SK1200 product number structure
	<b>Formula A ordering tables</b>	6-186	SK1200 ordering tables
6-47	Ordering code construction	6-187	Power management system accessories ordering tables
6-48	A1	6-191	Other accessories ordering tables
6-49	A2	6-192	Internal accessories ordering tables
6-50	A1 and A2 accessories overview		
6-52	Mechanical accessories	<b>Record Plus circuit breaker ordering tables</b>	
6-60	Electrical accessories	6-194	FB 100 product number structure and technical data
		6-195	FB 100 ordering tables
	<b>Industrial circuit breakers ordering tables</b>	6-198	FB 100 internal accessories
6-64	Thermal magnetic trip – type TEY/TEYF	6-199	FB100 external accessories
6-65	Thermal magnetic trip – type TEYD/TEYH/TEYL	6-200	FG 600 overview
6-67	Thermal magnetic trip – E150 line, type TEB/TED/THED	6-201	FG 600 product number structure and technical data
6-69	Internal accessories	6-201	FG 600 ordering tables
		6-202	FG 600 internal accessories
	<b>Tmax XT1-XT7 circuit breaker ordering tables</b>	6-203	FG 600 external accessories
6-74	Ordering code construction Tmax XT1-XT7	<b>6-204 Spectra RMS molded case switches ordering tables</b>	
6-78	Ordering code construction Tmax XT7M	<b>6-205 Spectra RMS motor circuit protectors ordering tables</b>	
6-81	Tmax XT1		
6-82	Tmax XT2	<b>Spectra RMS external accessories</b>	
6-89	Tmax XT3	6-207	Overview
6-90	Tmax XT4	6-208	Ordering information and technical data
6-98	Tmax XT5	6-209	Ordering tables
6-108	Tmax XT6		
6-110	Tmax XT7	<b>6-220 Obsolete products</b>	
6-114	Tmax XT7M		

---

## Industrial Circuit Breakers

### How to Order

#### Q-Line

- Thermal Magnetic Circuit Breakers
- Molded-Case Switches

The product number as shown in the following pages includes the complete breaker or switch. TQD and TJD breakers are complete with Cu/Al line and load lugs.

#### E 150 Line

- Thermal Magnetic Circuit Breakers
- Magnetic Circuit Breakers
- Molded Case Switches

The product numbers as shown in the following pages include the complete breaker or switch. All devices listed come with Cu/Al line and load lugs. If line lugs are not required on a breaker, eliminate "WL" from product number; for molded case switches see page 6-5. Unless otherwise noted, all circuit breakers are UL listed in File E-11592. Molded case switches are UL listed in File E-57546.



Q-Line Thermal Magnetic Circuit Breakers  
and Molded-Case Switches

## Industrial Circuit Breakers

### Spectra™ RMS

**- Circuit Breakers**

Determine the required breaker frame, IC rating, and load requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the tables on pages 6-170 to 6-178. For Spectra™ breakers with microEntelliGuard™ Trip Units refer to pages 6-179 through 6-186. Select field-mounted internal accessory product numbers, if required, on pages 6-192 and 6-193. Select field-mounted external accessory product numbers, if required, on pages 6-207 through 6-219 and pages 6-187 to 6-191 for Spectra™ breakers with microEntelliGuard™ Trip Units. Order as separate items.

**- Mag-Break Motor Circuit Protectors**

Determine the required frame and ampere requirements. Select frame, trip unit (rating plug), and lug, if required, product numbers from the table on pages 6-205 through 6-206. Select accessories as noted above for circuit breakers. The same accessories are used with both circuit breakers and motor circuit protectors. Order as separate items.

**- Molded Case Switches**

Determine the required frame and ampere requirements. Select frame and lug, if required, product numbers from the table on page 6-204. Rating plugs are not used. Select accessories as noted above for circuit breakers. Internal accessories do not require dummy trips. The same accessories are used with both circuit breakers and molded case switches. Order as separate items.

Unless otherwise noted, all circuit breakers are UL listed in File E- 11592. Molded case switches are UL listed in File E-57546. Field-Installable Internal Accessories are UL listed in File E-57253. Distribution Cable Accessories for microEntelliGuard™ Trip Units are UL listed in File E-57253.

### Accessories

Order accessories from the appropriate table:

- Thermal Magnetic Circuit Breakers, Magnetic Circuit Breakers, and Molded Case Switches<sup>1</sup>—pages 6-69 to 6-73 and 6-45 to 6-46.
- Spectra™ RMS Breakers—pages 6-192 to 6-193 and 6-207 to 6-219.
- Spectra™ RMS Breakers with microEntelliGuard™ Trip Units— pages 6-187 to 6-191.

<sup>1</sup>Installation of accessories in molded case switches requires dummy trip; see page 6-73 for information. Dummy trip not required for Tri-Break™ or Q-Line molded case switches.



Spectra Circuit Breakers and Molded Case Switches

### Molded Case Circuit Breaker and Switch Terminal Configuration Code

Order standard Cu/Al lugs by using suffix codes presented. Order lugs separately if special lugs are required. For optional lugs, see pages 6-216 and 6-217.

Breaker/Switch Type	Suffix				
	Blank	WL	XL	X2	LL
TQD/TJD	Load Lugs Only	Line and Load Lugs	-	Line Lugs Only	No Lugs
Molded Case Breakers, Thermal Magnetic	Load Lugs Only	Line and Load Lugs	-	Load Lugs Only	No Lugs
Molded Case Switch	Line and Load Lugs	-	No Lugs	Line Lugs Only	Load Lugs Only
Spectra RMS™ Breakers	No Lugs			Order Lugs Separately	

## Molded Case Circuit Breakers

### Features

#### Spectra™ RMS Molded Case Circuit Breakers

SE150, SF250, SG600, and SK1200 circuit breaker frames have a digital, solid-state, rms sensing trip system with field installable, front-mounted rating plugs to establish or change the breaker ampere rating. Adjustable instantaneous with tracking short-time is standard on all frames including SE150. The trip system uses digital sampling to determine the rms value of sinusoidal and nonsinusoidal currents.

#### microEntelliGuard™ Trip Units

Spectra™ SG600 and SK1200 breakers are now available with microEntelliGuard™ trip units - the newest and most advanced trip unit available in the Spectra™ line of molded case circuit breakers. Based on the EntelliGuard™ TU trip unit platform, the microEntelliGuard™ trip unit has the same HMI interface and incorporates the advanced features and protective functions for improved system protection, coordination, selectivity, performance, and diagnostic capabilities. New features offered with the microEntelliGuard™ trip unit include enhanced time-current curve shaping capability, ground fault alarm, direct Modbus communications, reduced energy let-through setting, zone selective interlock, neutral protection, waveform capture, and programmable output contacts. The microEntelliGuard™ trip unit utilizes the same power management accessories offered for the Spectra™ MicroVersaTrip™ with the addition of a new advanced junction box and interconnect cables. The breakers have the same footprint and interrupt ratings as their SG/SK counterparts and are backwards compatible with existing equipment and installations. The microEntelliGuard™ trip unit uses the same universal rating plugs and test kit offered for the EntelliGuard TU™ trip unit.

Spectra™ molded cases circuit breakers with microEntelliGuard™ trip units can be part of an ArcWatch™ solution.

ABB's ArcWatch™ system solution involves a combination of intelligent trip units and current limiting molded case circuit breakers to create a no compromise solution; safety and reliability together. Advances in zone selective interlocking (ZSI) and waveform recognition algorithms allow entire systems to be designed so that full selectivity and 100% instantaneous protection at calculated arcing current is possible. For most industrial systems, the GE ArcWatch™ solution will result in incident energy under 8 cal/cm<sup>2</sup> at 18".

Enabling ArcWatch™ means the proper coordination analysis techniques have been used to determine the necessary circuit breaker protection features and settings that allow full coordination in the given system. The circuit breaker must be set to match the results of the completed study.

For more information, check out [electrification.us.abb.com/ArcWatch](http://electrification.us.abb.com/ArcWatch) (Publication DET-760) or contact your local sales representative.



Spectra™ SG600 and SK1200 Breakers with microEntelliGuard™ Trip Units

## Molded Case Circuit Breakers

### Record Plus™ Molded Case Circuit Breakers

Record Plus™ represents the very latest in molded case circuit breaker design. Utilizing design features such as double-break rotary contact structures and advanced ablative materials to enhance interruption, Record Plus™ is capable of interrupting ratings up to 200kA. High kAIC ratings, selective coordination, reduced arc flash energy, and current limitation embody the core design principles of Record Plus™.

FB 100 circuit breakers are supplied with factory installed non-user interchangeable thermal-magnetic trip units and can be supplied with or without lugs. FB breakers are available in 1-, 2- and 3-pole versions.

FG 600 circuit breakers are supplied with factory installed, nonuser interchangeable electronic trip units. PremEon S features the use of front accessible, user adjustable dials to establish or change the breaker's amp rating. Adjustable instantaneous with tracking short-time is standard. Ground fault protection is optional.

All frames use common internal accessories (auxiliary switches, UV releases, shunt trips, and bell alarms) UL listed for field installation.

UL listed maximum short circuit ratings at 480VAC are 150kA for the 100A frames, 100kA for the 250A frame and 200kA for the 600A frames.

Unless noted otherwise, all circuit breakers and accessories are listed in UL file number E11592.

### Other MCCB Features

- UL489/cUL489 Listed
- Broad product line to meet virtually any application need.
- Reduced downtime. A tripped breaker is easily spotted and can be immediately reset after the fault has been corrected.
- Eliminates single phasing. A common trip bar disconnects all poles simultaneously on both overloads and short circuits.
- Offers application flexibility through the use of a wide variety of accessory devices and special attachments.
- Repetitive operation—no fuses to replace.
- Breakers can be repetitively tested. Fuses must be destroyed to confirm calibration accuracy.

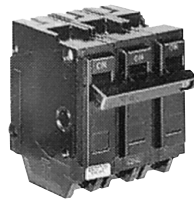
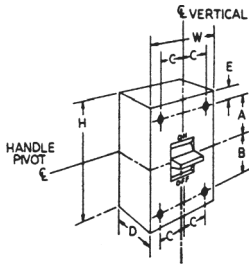
For more information on these products, visit [electrification.us.abb.com](http://electrification.us.abb.com).



Record Plus™ Molded Case Circuit Breakers

# Molded Case Circuit Breakers

## Quick Reference Guide



THQL 32015

Ratings do not apply to molded case switches.

The interruption ratings and voltages shown in the table are maximum ratings. A circuit breaker of the type given in the lefthand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.

### Q-Line (UL file E-11592; Fixed Thermal Magnetic Trip Unit)

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings—rms Symmetrical kA								Dimensions (in.)							Std. Pack	
					Vac				Vdc				H	W	D	A	B	C	E		
					ac	dc	120	120/240	240	277	480	600									125
TQ	15-50	1	120/240	-	-	10	-	-	-	-	-	-	-	3	3/4	2 3/8	-	-	-	-	10
	15-60	2	120/240	-	-	10	-	-	-	-	-	-	-	3	1 1/2	2 3/8	-	-	-	-	5
THQP <sup>1</sup>	15-50	1	120/240	-	-	10	-	-	-	-	-	-	-	3 9/32	1/2	2 3/8	-	-	-	-	100
		2	120/240	-	-	10	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	50
TQL/TQB/TQC	10	1	120/240	-	-	52	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	50
		2	120/240	-	-	52	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
		3	240	-	-	-	52	-	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
THQL <sup>1</sup>	15-70	1	120/240	-	-	10	-	-	-	-	-	-	-	3 9/32	3	2 3/8	-	-	-	-	50
THQB <sup>1</sup>	15-125	2	120/240	-	-	-	10	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
THQC <sup>1</sup>	15-100	3	240	-	-	-	-	10	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
THHQB <sup>1</sup>	15-70	1	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	3	2 3/8	-	-	-	-	50
THHQB <sup>1</sup>	15-100	2	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
THHQB <sup>1</sup>	15-100	3	240	-	-	-	22	-	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
THHQB <sup>1</sup>	15-100	3	240	-	-	-	-	22	-	-	-	-	-	3 9/32	3	2 3/8	-	-	-	-	50
THHQB <sup>1</sup>	15-125	2	120/240	-	-	-	22	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
THHQB <sup>1</sup>	15-100	3	240	-	-	-	-	22	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
THHQB <sup>1</sup>	15-100	3	240	-	-	-	-	-	22	-	-	-	-	3 9/32	3	2 3/8	-	-	-	-	50
THHQB <sup>1</sup>	15-125	2	120/240	-	-	-	-	-	22	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
THHQB <sup>1</sup>	15-100	3	240	-	-	-	-	-	-	22	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
TXQL <sup>1</sup>	15-30	1	120/240	-	-	65	-	-	-	-	-	-	-	3 9/32	3	2 3/8	-	-	-	-	50
TXQB <sup>1</sup>	15-30	2	120/240	-	-	65	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	25
TXQC <sup>1</sup>	15-30	3	240	-	-	-	65	-	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	15
TQD <sup>1</sup>	100-225	2	240	-	-	10	10	-	-	-	-	-	-	6 9/16	3	2 5/8	2 7/16	2 7/16	-	-	1
	100-225	3	240	-	-	-	10	-	-	-	-	-	-	6 9/16	4 1/8	2 5/8	2 7/16	2 7/16	11/16	27/32	1
THQD <sup>1</sup>	100-225	2	240	-	-	22	22	-	-	-	-	-	-	6 9/16	3/4	2 5/8	2 7/16	2 7/16	-	27/32	1
	100-225	3	240	-	-	-	22	-	-	-	-	-	-	6 9/16	1 1/2	2 5/8	2 7/16	2 7/16	11/16	27/32	1
TJD	250-400	2	240	-	-	22	22	-	-	-	-	10	-	10 1/8	8 1/4	3	3	3	1 3/8	1 3/16	1
	250-400	3	240	-	-	-	22	-	-	-	-	-	-	10 1/8	8 1/4	3	3	3	1 3/8	1 3/16	1

### Ground Fault, Equipment Ground Fault, Arc Fault and Dual Function, Fixed Thermal Trip

THQL	15-30	1	120	-	10	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THQC		2	120/240	-	-	10	-	-	-	-	-	-	-	3 9/32	2	2 3/8	-	-	-	-	10
THQB	15-20	1	120	-	22	10	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
GFT, GFEP		2	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THHQB	15-20	1	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
GFT		2	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THQB	15-20	1	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THQC		2	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THQL	15-20	1	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
...AF2, DF		2	120/240	-	-	-	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THHQB	15-20	1	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
...AF2, DF		2	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THHQB	15-20	1	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10
THHQB		2	120/240	-	-	22	-	-	-	-	-	-	-	3 9/32	1	2 3/8	-	-	-	-	10

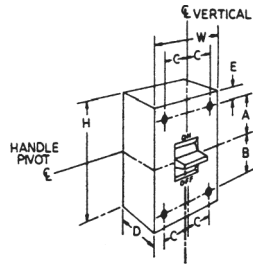
<sup>1</sup>UL listed as HACR (heating, air conditioning and refrigeration).

<sup>2</sup>Not UL listed.



# Industrial Circuit Breakers

Quick Reference Guide  
10-1200A Circuit Breakers  
Thermal Magnetic Trip



TEYD, TEYH, TEYL

Ratings do not apply to molded case switches.

Maximum interruption ratings and voltages shown. A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table.

That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.

**TEY and TEYF (UL/cUL File E-11592; TEYD/H/L (UL/cUL File E-11592))**

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings—rms Symmetrical kA												Dimensions (in.)					Approx. Ship Wt./Std. Pack		
			ac	dc	Vac						Vdc						H	W	D	A	B		C	E
					120	120/240	240	277	480/277	480	600	125	250	500										
TEY <sup>2,3</sup>	15-100	1	277	125	65	-	14	14	-	-	-	10	-	-	5 1/4	1	3 1/16	-	-	-	-	-	-	
		2	480/277	250	-	-	65	14	14	-	-	-	10	-		2								
		3	-	-	-	-	-	-	-	-	-	-	-	3										
TEYF <sup>2,3</sup>	15-60	1	277	125	65	-	18	18	-	-	-	10	-	-	5 1/4	1	3 1/16	-	-	-	-	-	-	
		2	480/277	250	-	-	65	18	18	-	-	-	10	-		2								
		3	-	-	-	-	-	-	-	-	-	-	-	3										
TEYD	15-70	1	277	-	65	65	-	25	-	-	-	-	-	-	5 1/4	1	3 1/16	-	-	-	-	-	1 lb	
		2	480/277	-	-	65	65	-	25	-	-	-	-	-		2								2 lb
		3	-	-	-	-	-	-	-	-	-	-	-	3		2.7 lb								
TEYH	15-70	1	277	-	65	65	-	35	-	-	-	-	-	-	5 1/4	1	3 1/16	-	-	-	-	-	1 lb	
		2	480/277	-	-	65	65	-	35	-	-	-	-	-		2								2 lb
		3	-	-	-	-	-	-	-	-	-	-	-	3		2.7 lb								
TEYH	15-70	1	277	125	100	100	-	65	-	-	-	15	-	-	5 1/4	1	3 1/16	-	-	-	-	-	1 lb	
		2	480/277	250	-	100	100	-	65	-	-	42	20	-		2								2 lb
		3	-	-	-	-	-	-	-	-	42	35	-	3		2.7 lb								

**E150 (UL/cUL File E-11592)**

TEB <sup>2,3</sup>	10-100 <sup>4</sup>	1	120	125	10	-	-	-	-	-	5	-	-	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	-	23/32	26 lb/24		
		2	240	250	-	-	10	-	-	-	-	5	-		2 3/4							24 lb/12	
		3	-	-	-	-	10	-	-	-	-	-	-		4 1/8							28 lb/8	
TED <sup>2,3</sup>	10-100 <sup>4</sup>	1	277, 347 <sup>5</sup>	125	-	-	14	-	10	-	10	-	-	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	-	23/32	24 lb/24		
		2	480	250	-	-	18	-	-	18	-	-	10		2 3/4							24 lb/12	
		3 <sup>7</sup>	480, 600	500	-	-	18	-	-	18	14	-	10		10 <sup>1</sup>							4 1/8	28 lb/8
THED <sup>2,3</sup>	15-30	1	277, 347 <sup>5</sup>	125	-	-	65	-	-	-	10 <sup>6</sup>	-	-	6 5/16	1 3/8	3 3/8	2 41/64	2 15/64	-	23/32	26 lb/24		
		2	480	250	-	-	65	-	-	25	-	10 <sup>6</sup>	-		2 3/4							24 lb/12	
		20-100	2	480	250	-	-	65	-	-	25	-	10 <sup>6</sup>		-							4 1/8	28 lb/8
		110-150	3 <sup>7</sup>	600	500	-	-	42	-	-	25	18	-		10							10 <sup>1</sup>	11/16

**Mag-Break (UL Files E-11592, E-66390; Magnetic Trip Unit)<sup>8</sup>**

TJC	400-600	3	600	-	-	-	42	-	-	30	22	-	-	-	10 1/8	8 1/4	3 13/16	3 13/16	3 13/16	1 3/8	16 lb/1
																					17 1/2 lb/1

<sup>1</sup>UL listed with poles in series for 500 Vdc ungrounded battery applications.

<sup>2</sup>UL listed as HACR (heating, air conditioning, and refrigeration).

<sup>3</sup>15-50A UL listed as HID (high intensity discharge).

<sup>4</sup>10 amp not UL listed, rated 5kA @ 120V, 240V and 480V

<sup>5</sup>UL/cUL listed for 10kA @ 347 Vac (TED) and 18kA @ 347V (THED).

Rated 10kA @ 480V but not UL listed.

<sup>6</sup>UL listed 10kA, GE tested to 20kA.

<sup>7</sup>TED, 3P, 600V, 15A breaker is obsolete. (TED136015WL & THED136015WL)

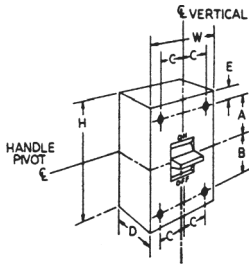
<sup>8</sup>Per UL 489, interrupting capacities are not shown on product label.

# Industrial Circuit Breakers

## Quick Reference Guide

### 15-1200A Circuit Breakers

#### Electronic Trip



SE 150

Ratings do not apply to molded case switches. The interruption ratings and voltages shown in the table are maximum ratings. A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.

### Spectra™ RMS Circuit Breakers UL/cUL Ratings

Solid-State with Interchangeable Trip Unit (Rating Plug)														
Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Vac	UL Listed Interrupting Ratings—rms Symmetrical kA			Dimensions (in.)							Approx. Ship Wt./Std. Pack
				240 Vac	480 Vac	600 Vac	H	W	D	A	B	C	E	
SED <sup>2,3</sup>	15-150	2	480	18	18	—	6.31 (160)	4.12 (105)	3.38 (86)	2.41 (61)	2.47 (63)	.69 (18)	.72 (18)	5.65 lb/1
		3	600			14								
SEH <sup>2</sup>	15-150	2	480	65	25	—	6.31 (160)	4.12 (105)	3.38 (86)	2.41 (61)	2.47 (63)	.69 (18)	.72 (18)	5.65 lb/1
		3	600			18								
SEL	15-150	2	480	100	65	—	6.31 (160)	4.12 (105)	3.38 (86)	2.41 (61)	2.47 (63)	.69 (18)	.72 (18)	5.65 lb/1
		3	600			25								
SEP	15-150	2	480	200	100	—	6.31 (160)	4.12 (105)	3.38 (86)	2.41 (61)	2.47 (63)	.69 (18)	.72 (18)	5.65 lb/1
		3	600			25								
SF-250 Current Limiting (UL File No. E-11592) <sup>1</sup>														
SFH <sup>2</sup>	70-250	2	480	65	35	—	10.12 (257)	4.12 (105)	3.81 (97)	3.87 (98)	3.87 (98)	.69 (18)	1.19 (30)	9.15 lb/1
		3	600			22								
SFL	70-250	2	480	100	65	—	10.12 (257)	4.12 (105)	3.81 (97)	3.87 (98)	3.87 (98)	.69 (18)	1.19 (30)	9.15 lb/1
		3	600			25								
SFP	70-250	2	480	200	100	—	10.12 (257)	4.12 (105)	3.81 (97)	3.87 (98)	3.87 (98)	.69 (18)	1.19 (30)	9.15 lb/1
		3	600			25								
SG600 Current Limiting (UL File No. E-11592) <sup>1,4</sup>														
SGH1 <sup>2,5</sup>	6-150	3	600	65	35	25	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		2	240											
SGD <sup>2</sup>	125-400	2	240	65	—	—	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGH4 <sup>2</sup>	125-400	2	600	65	35	25	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGH6 <sup>2</sup>	250-600	2	600	65	35	25	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGL1 <sup>5</sup>	60-150	3	600	100	65	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGP1 <sup>5</sup>	60-150	3	600	200	100	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGL4	125-400	2	600	100	65	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGP4	125-400	2	600	200	100	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGL6	250-600	2	600	100	65	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SGP6	250-600	2	600	200	100	65	10.09 <sup>6</sup> (256)	5.50 (140)	3.81 (97)	4.45 (113)	3.30 (84)	.91 (23)	1.18 <sup>6</sup> (30)	15.85 lb/1
		3	600											
SK1200 (UL File No. E-11592) 1,4														
SKH8	300-800	2	600	65	50	25	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKL8	300-800	2	600	100	65	42	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKP8	300-800	2	600	200	100	65	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKH12	600-1200	2	600	65	50	25	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKL12	600-1200	2	600	100	65	42	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKP12	600-1200	2	600	200	100	65	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	600											
SKS8	800-1200	3	200	100	100	—	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	400											
SKT8	800-1200	3	100	65	65	—	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	200											
SKS12	800-1200	3	200	100	100	—	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	400											
SKT12	800-1200	3	100	65	65	—	15.507 (394)	8.25 (210)	5.50 (140)	8.56 (217)	5.69 (145)	1.38 (35)	.62 <sup>7</sup> (16)	47.6 lb/1
		3	200											

<sup>1</sup>UL listed as HACR (heating, air conditioning and refrigeration).  
<sup>2</sup>Not current-limiting circuit breaker.  
<sup>3</sup>UL listed as HID (high intensity discharge).  
<sup>4</sup>Includes microEntelliGuard™ Trip Units.

<sup>5</sup>microEntelliGuard, MicroVersaTrip Plus and MicroVersaTrip PM Trip Units only.  
<sup>6</sup>Add 1.76 inches (45 mm) to each end with lugs and lug cover installed.  
<sup>7</sup>Add 4.00 inches (101 mm) to upper end for SKP (100 kAIC-480V) lug cover.

# Industrial Circuit Breakers

Quick Reference Guide  
15-1200A Circuit Breakers  
Electronic Trip

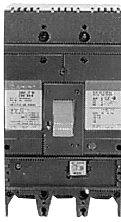
Ratings do not apply to molded case switches.



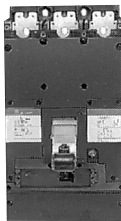
SE



SF



SG



SK

## IEC/JIS Ratings

Solid-State with Interchangeable Trip Unit (Rating Plug)														
Circuit Breaker Type	Ampere Rating	No. Poles	IEC 947-2 Interruption Capacity – kA								Japanese Industry Standard Interruption Capacity kA			
			220-240 Vac		380-415 Vac		500 Vac		690 Vac		Vac			
			I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	I <sub>cu</sub>	I <sub>cs</sub>	220-240	380-415	500	690
SED	15-32	2	18	9	10	5	–	–	–	–	18	10	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEH	15-32	2	65	33	15	10	–	–	–	–	65	15	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEL	15-32	2	100	50	20	15	–	–	–	–	100	20	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEP	15-32	2	200	100	20	20	–	–	–	–	200	20	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
<b>SE150 Current Limiting, 40-160A</b>														
SED	40-160	2	18	9	14	7	–	–	–	–	18	14	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEH	40-160	2	65	33	35	17	–	–	–	–	65	25	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEL	40-160	2	100	50	65	33	–	–	–	–	100	65	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SEP	40-160	2	200	100	100	50	–	–	–	–	200	100	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
<b>SF250 Current Limiting</b>														
SFH	70-250	2	65	33	35	17	–	–	–	–	65	25	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SFL	70-250	2	100	50	65	33	–	–	–	–	100	65	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SFP	70-250	2	200	100	100	50	–	–	–	–	200	100	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
<b>SG600 Current Limiting</b>														
SGH1 <sup>1</sup>	60-150	3	65	33	25	13	18	9	–	–	65	25	18	–
SGL1 <sup>1</sup>			100	50	65	33	35	18	14	7	100	65	35	22
SGP1 <sup>1</sup>			200	100	100	50	50	25	18	9	200	100	65	35
SGH4	125-400	2	65	33	25	13	–	–	–	–	65	25	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SGL4	125-400	2	100	50	65	33	–	–	–	–	100	65	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SGP4	125-400	2	200	100	100	50	–	–	–	–	200	100	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SGH6	250-600	2	65	33	25	13	–	–	–	–	65	25	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SGL6	250-600	2	100	50	65	33	–	–	–	–	100	65	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SGP6	250-600	2	200	100	100	50	–	–	–	–	200	100	–	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
<b>SK1200</b>														
SKH8	300-800	2	65	16	50	13	25	13	–	–	65	50	25	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SKL8	300-800	2	100	25	65	16	42	21	14	14	100	65	42	14
		3	–	–	–	–	–	–	–	–	–	–	–	–
SKP8	300-800	2	140	35	85	25	50	25	18	18	140	85	50	18
SKH12	600-1250	2	65	16	50	13	25	13	–	–	65	50	25	–
		3	–	–	–	–	–	–	–	–	–	–	–	–
SKL12	600-1250	2	100	25	65	21	42	16	14	14	100	65	42	14
		3	–	–	–	–	–	–	–	–	–	–	–	–
SKP12	600-1250	2	140	35	70	25	50	25	18	18	140	85	50	18
		3	–	–	–	–	–	–	–	–	–	–	–	–

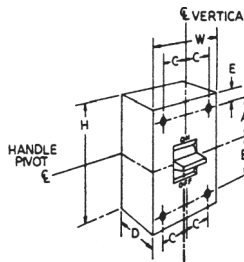
<sup>1</sup>microEntelliGuard™, MicroVersaTrip™ Plus, and MicroVersaTrip™ PM Trip Units only.

# Industrial Circuit Breakers

## Quick Reference Guide

### 15-600A Record Plus™ Circuit Breakers

The interruption ratings and voltages shown in the table are maximum ratings. A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.



FG 600

### Ratings

**FB 100 Amp Frame; Current Limiting (UL/cUL File No. E-11592)**

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings - rms Symmetrical Amperes (in Thousands)					Dimensions (in.)			Approx. Ship Wt./ Std. Pack
					Vac					H	W	D	
					AC	DC	240	277	347				
FBV	15-100	1	600/347	—	35	35	22	—	—	6.45 (163.8)	1.36 (34.5)	3.28 (83.3)	1.1 lb/1
		2	600/347	—	65	—	—	35	22	6.45 (163.8)	2.74 (69.6)	3.28 (83.3)	2.6 lb/1
		3	600/347	—	65	—	—	35	22	6.45 (163.8)	4.11 (104.4)	3.28 (83.3)	3.3 lb/1
FBN	15-100	1	600/347	—	65	65	25	—	—	6.45 (163.8)	1.36 (34.5)	3.28 (83.3)	1.1 lb/1
		2	600/347	—	150	—	—	65	25	6.45 (163.8)	2.74 (69.6)	3.28 (83.3)	2.6 lb/1
		3	600/347	—	150	—	—	65	25	6.45 (163.8)	4.11 (104.4)	3.28 (83.3)	3.3 lb/1
FBH	15-100	1	600/347	—	100	100	35	—	—	6.45 (163.8)	1.36 (34.5)	3.28 (83.3)	1.1 lb/1
		2	600/347	—	200	—	—	100	35	6.45 (163.8)	2.74 (69.6)	3.28 (83.3)	2.6 lb/1
		3	600/347	—	200	—	—	100	35	6.45 (163.8)	4.11 (104.4)	3.28 (83.3)	3.3 lb/1
FBL	15-100	1	600/347	—	100	150	42	—	—	6.45 (163.8)	1.36 (34.5)	3.28 (83.3)	1.1 lb/1
		2	600/347	—	200	—	—	150	42	6.45 (163.8)	2.74 (69.6)	3.28 (83.3)	2.6 lb/1
		3	600/347	—	200	—	—	150	42	6.45 (163.8)	4.11 (104.4)	3.28 (83.3)	3.3 lb/1

**FG 600 Amp Frame; Current Limiting (UL/cUL File No. E-11592)**

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Ratings - rms Symmetrical Amperes (in Thousands)			EN 60947-2 Interrupting Ratings, Icu, Amperes (in Thousands)			Dimensions (in.)			Approx. Ship Wt./ Std. Pack
					Vac			Vac			H	W	D	
					AC	DC	240	480	600	240				
FGN	250-600	2	600	—	150	65	25	—	—	—	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
		3	600	—	150	65	25	85	50	10	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
FGH	250-600	2	600	—	200	100	35	—	—	—	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
		3	600	—	200	100	35	100	80	22	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
FGL	250-600	2	600	—	200	150	42	—	—	—	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
		3	600	—	200	150	42	200	150	40	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
FGP	250-600	2	600	—	200	200	65	—	—	—	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1
		3	600	—	200	200	65	—	—	—	10.31 (262.0)	5.46 (138.7)	4.53 (115.0)	22 lb/1

## Formula A circuit breakers for power distribution

### General characteristics

The FORMULA circuit breakers from 15 A to 250 A consist of the interruption component together with the trip unit and can be installed:

- Directly on the back plate of cubicles
- On a DIN rail

They are characterized by:

- Fixed version
- Polarity: 1-pole, 2-pole, 3-pole
- Maximum breaking capacity of 25 kA at 240 V AC
- Fixed thermal-magnetic trip unit (TMF) for protection of networks in alternating current
- A single depth of 2.36"
- Standard front terminals

#### FORMULA A1



1-pole



2-pole



2-pole



3-pole

		A1				A2	
Frame size	A	100				250	
Rated current, In	A	15–100				125–250	
Poles	No.	1, 2, 3				2, 3	
Rated service voltage, Ue (AC) 50–60 Hz (DC)	V	240 (1p, 2p, 3p) 125 (1p), 250 (2p,3p)				240 (2p, 3p) 250 (2p,3p)	
Versions		Fixed				Fixed	
Performance Level		A		N		A	N
Pole	No.	1	2, 3	1	2, 3	2, 3	2, 3
Rated ultimate short circuit breaking capacity, Icu							
Interrupting rating at 240 V 50–60 Hz (AC)	kA	10	10	18	25	10	25
Interrupting rating at 125 V (DC) 1-pole (in 2012)	kA	5	–	10	–	–	–
Interrupting rating at 250 V (DC) 2-pole in series (2p, 3p) (in 2012)	kA	–	5	–	10	10	25
Reference standard		UL 489				UL 489	
Isolation behavior		Yes				Yes	
Mounting onto DIN rail		DIN EN 50022				DIN EN 50022	
Dimensions (width x depth x height)							
1-pole	in.	1.00 x 2.36 x 5.12				–	
2-pole	in.	2.00 x 2.36 x 5.12				2.76 x 2.36 x 5.91	
3-pole	in.	3.00 x 2.36 x 5.12				4.13 x 2.36 x 5.91	
Weight							
1-pole	lbs.	0.54				–	
2-pole	lbs.	1.04				1.61	
3-pole	lbs.	1.54				2.43	
Trip unit — Thermal-magnetic TMF		Yes				Yes	

## Formula A circuit breakers for power distribution

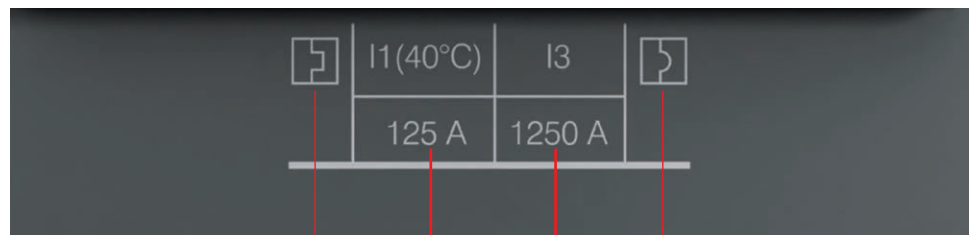
### Thermal-magnetic trip unit

The thermal-magnetic trip units TMF, with fixed thermal and magnetic threshold, are generally used in power distribution plants. They allow protection against overloads due to the thermal device and protection against short circuit due to the magnetic device:

- Thermal protection (L): fixed threshold  $I1 = 1 \times I_n$ , with long inverse time trip curve
- Magnetic protection (I): fixed threshold  $I3 = 10 \times I_n$ , with instantaneous trip curve

#### Fixed thermal-magnetic trip unit TMF

An example with FORMULA A2  $I_n = 125$  A



Thermal protection symbol

Magnetic protection symbol

Thermal protection value

Magnetic protection value

#### FORMULA A1 with trip unit TMF

TMF												
<b>L</b> $I1 = 1 \times I_n$	In (A)	15	20	25	30	40	50	60	70	80	90	100
	Neutral (A) — 100%	15	20	25	30	40	50	60	70	80	90	100
<b>I</b> $I3 = 10 \times I_n$	I3 (A)	300 <sup>1</sup>	300 <sup>1</sup>	300 <sup>1</sup>	300 <sup>1</sup>	400	500	600	700	800	900	1000
	Neutral (A) — 100%	300	300	300	600	400	500	600	700	800	900	1000

<sup>1</sup>Single- and two-pole versions have an I3 (3) of 400.

#### FORMULA A2 with trip unit TMF

TMF							
<b>L</b> $I1 = 1 \times I_n$	In (A)	125	150	175	200	225	250
	Neutral (A) — 100%	125	150	175	200	225	250
<b>I</b> $I3 = 10 \times I_n$	I3 (A)	1250	1500	1750	2000	2250	2500
	Neutral (A) — 100%	1250	1500	1750	2000	2250	2500

## Tmax XT circuit breakers for (AC) distribution



Molded case circuit breakers (MCCB)			XT1			XT2					
Frame Size		[A]	125			125					
Poles		[No.]	3, 4			3, 4					
Rated voltage	(AC) 50-60Hz	[V]	480 V Δ <sup>2</sup>			600					
Versions			Fixed, Plug-in			Fixed, Plug-in, Withdrawable					
Interrupting ratings			N	S	H	N	S	H <sup>1</sup>	L <sup>1</sup>	V <sup>1</sup>	X
	240 V (AC)	[kA]	50	65	100	65	100	150	200	200	200
	480 V (AC)	[kA]	25	35	65	25	35	65	100	150	200
	600Y/347 V (AC)	[kA]	18	22	25	–	–	–	–	–	–
	600 V (AC)	[kA]	–	–	–	18	22	25	35	42	42
Mechanical life		[No. Operations]	25000			25000					
		[No. Hourly operations]	240			240					
Dimensions - Fixed (Width x Depth x Height)	3-poles	[mm]/[in]	[76.2 x 70 x 130] / [3 x 2.75 x 5.12]			[90 x 82.5 x 130] / [3.54 x 3.25 x 5.12]					
	4-poles	[mm]/[in]	[101.6 x 70 x 130] / [4 x 2.75 x 5.12]			[120 x 82.5 x 130] / [4.72 x 3.25 x 5.12]					
Weight	Fixed 3/4-poles	[kg]/[lbs]	[1.1 - 2.43] / [1.4 - 3.07]			[1.2 - 2.65] / [1.6 - 3.53]					
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	[2.21 - 4.87] / [2.82 - 6.22]			[2.54 - 5.60] / [3.27 - 7.21]					
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	–			[3.32 - 7.32] / [4.04 - 8.91]					
<b>Trip units for power distribution</b>											
TMF			■			■					
TMA			–			■					
Ekip Dip			–			■					
Ekip Touch			–			■					

<sup>1</sup>Current Limiting circuit breaker in 480V AC and 600V AC

<sup>2</sup>600Y/347

## Tmax XT circuit breakers for (AC) distribution



Molded case circuit breakers (MCCB)			XT3	XT4						
Frame Size	[A]		225	250						
Poles	[No.]		3, 4	2 (for N fixed version only) 3, 4 <sup>2</sup>						
Rated voltage	(AC) 50-60Hz	[V]	480 V $\Delta^3$	600						
Versions			Fixed, Plug-in	Fixed, Plug-in, Withdrawable						
Interrupting ratings			N	S	N	S	H <sup>1</sup>	L <sup>1</sup>	V <sup>1</sup>	X
	240 V (AC)	[kA]	50	65	65	100	150	200	200	200
	480 V (AC)	[kA]	25	35	25	35	65	100	150	200
	600Y/347 V (AC)	[kA]	10	10	-	-	-	-	-	-
	600 V (AC)	[kA]	-	-	18	22	25	50	65	100
Mechanical life		[No. Operations]	25000		25000					
		[No. Hourly operations]	240		240					
Dimensions - Fixed (Width x Depth x Height)	3-poles	[mm]/[in]	[105 x 70 x 150] / [4.13 x 2.75 x 5.90]		[105 x 82.5 x 160] / [4.13 x 3.25 x 6.3]					
	4-poles	[mm]/[in]	[140 x 70 x 150] / [5.51 x 2.75 x 5.90]		[140 x 82.5 x 160] / [5.51 x 3.25 x 6.3]					
Weight	Fixed 3/4-poles	[kg]/[lbs]	[1.7 - 3.37] / [2.1 - 4.63]		[2.5 - 5.51] / [3.5 - 7.72]					
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	[3.24 - 7.14] / [4.1 - 9.04]		[4.19 - 9.24] / [5.52 - 12.17]					
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	-		[5 - 11.02] / [6.76 - 14.90]					
<b>Trip units for power distribution</b>										
TMF			■		■					
TMA			-		■					
Ekip Dip			-		■					
Ekip Touch			-		■					

<sup>1</sup>Current Limiting circuit breaker in 480V AC and 600V AC

<sup>2</sup>2-poles version available only as complete circuit breaker with TMF; 4-poles version available only as complete circuit breaker from In=80 to In=250 with TMF

<sup>3</sup>600Y/347



## Tmax XT circuit breakers for (AC) distribution



Molded case circuit breakers (MCCB)			XT5						XT6		
Frame Size		[A]	400-600						800		
Poles		[No.]	3, 4						3, 4		
Rated voltage	(AC) 50-60Hz	[V]	600						600		
Versions			Fixed ,Plug-in, Withdrawable						Fixed , Withdrawable		
Interrupting ratings			N	S	H <sup>1</sup>	L <sup>1</sup>	V <sup>1</sup>	X	N	S	H
	240 V (AC)	[kA]	65	100	150	200	200	200	65	100	200
	480 V (AC)	[kA]	35	50	65	100	150	200	35	50	65
	600V/347 V (AC)	[kA]	-	-	-	-	-	-	-	-	-
	600 V (AC)	[kA]	18	25	35	65	100	100	20	25	35
Mechanical life		[No. Operations]	20000						20000		
		[No. Hourly operations]	240						240		
Dimensions - Fixed	3-poles	[mm]/[in]	[140 x 103 x 205] / [5.51 x 4.05 x 8.07]						[210 x 103.5 x 268] / [8.27 x 4.07 x 10.55]		
(Width x Depth x Height)	4-poles	[mm]/[in]	[186 x 103 x 205] / [7.32 x 4.05 x 8.07]						[280 x 103.5 x 268] / [11.02 x 4.07 x 10.55]		
Weight	Fixed 3/4-poles	[kg]/[lbs]	-						-		
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	-						-		
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	-						-		
<b>Trip units for power distribution</b>											
TMF			-						-		
TMA			■						■		
Ekip Dip			■						■		
Ekip Touch			■						-		

<sup>1</sup>Current Limiting circuit breaker in 480V AC and 600V AC

## Tmax XT circuit breakers for (AC) distribution



Molded case circuit breakers (MCCB)			XT7			XT7 M		
Frame Size		[A]	800-1000-1200			800-1000-1200		
Poles		[No.]	3, 4			3, 4		
Rated voltage	(AC) 50-60Hz	[V]	600			600		
Versions			Fixed, Withdrawable			Fixed, Withdrawable		
Interrupting ratings			S	H	L	S	H	L
	240 V (AC)	[kA]	65	100	200	65	100	200
	480 V (AC)	[kA]	50	65	100	50	65	100
	600Y/347 V (AC)	[kA]	–	–	–	–	–	–
	600 V (AC)	[kA]	25	50	65	25	50	65
Mechanical life		[No. Operations]	10000			10000		
		[No. Hourly operations]	240			240		
Dimensions - Fixed	3-poles	[mm]/[in]	[210 x 167 x 268] / [8.27 x 6.57 x 10.55]			[210 x 178 x 268] / [8.27 x 7.01 x 10.55]		
(Width x Depth x Height)	4-poles	[mm]/[in]	[280 x 166 x 268] / [11.02 x 6.57 x 10.55]			[280 x 178 x 268] / [11.02 x 7.01 x 10.55]		
Weight	Fixed 3/4-poles	[kg]/[lbs]	–			–		
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	–			–		
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	–			–		
<b>Trip units for power distribution</b>								
TMF			–			–		
TMA			–			–		
Ekip Dip			■			■		
Ekip Touch			■			■		

## Tmax XT circuit breakers for (DC) distribution



Molded case circuit breakers (MCCB)			XT1			XT2					
Frame Size	[A]		125			125					
Poles	[No.]		3, 4			3, 4					
Rated voltage (DC)	[V]		500			500					
Versions			Fixed, Plug-in			Fixed, Plug-in, Withdrawable					
Interrupting ratings			N	S	H	N	S	H	L	V	X
	250 V (DC) 2 poles in series	[kA]	35	42	50	35	50	65	75	85	85
	500 V (DC) 2 poles in series	[kA]	-	-	-	-	-	-	-	-	-
	500 V (DC) 3-poles in series	[kA]	-	-	-	35	50	65	75	85	85
	500 V (DC) 4-poles in series	[kA]	35	50	50	-	-	-	-	-	-
	600 V (DC) 3-poles in series	[kA]	-	-	-	-	-	-	-	-	-
Mechanical life		[No. Operations]	25000			25000					
		[No. Hourly operations]	240			240					
Dimensions	Fixed 3-poles	[mm]/[in]	[76.2 x 70 x 130] / [3 x 2.75 x 5.12]			[90 x 82.5 x 130] / [3.54 x 3.25 x 5.12]					
(Width x Depth x Height)	4-poles	[mm]/[in]	[101.6 x 70 x 130] / [4 x 2.75 x 5.12]			[120 x 82.5 x 130] / [4.72 x 3.25 x 5.12]					
Weight	Fixed 3/4-poles	[kg]/[lbs]	[1.1 - 2.43] / [1.4 - 3.07]			[1.2 - 2.65] / [1.6 - 3.53]					
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	[2.21 - 4.87] / [2.82 - 6.22]			[2.54 - 5.60] / [3.27 - 7.21]					
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	-			[3.32 - 7.32] / [4.04 - 8.91]					
<b>Trip units for power distribution</b>											
TMF			■			■					
TMA			-			■					
TMG			-			-					

## Tmax XT circuit breakers for (DC) distribution



Molded case circuit breakers (MCCB)			XT3		XT4					
Frame Size	[A]		225		250					
Poles	[No.]		3, 4		3, 4					
Rated voltage (DC)	[V]		500		600					
Versions			Fixed, Plug-in		Fixed, Plug-in, Withdrawable					
Interrupting ratings			N	S	N	S	H	L	V	X
	250 V (DC) 2 poles in series	[kA]	25	35	35	42	50	85	100	100
	500 V (DC) 2 poles in series	[kA]	–	–	–	–	–	–	–	–
	500 V (DC) 3-poles in series	[kA]	25	35	–	–	–	–	–	–
	500 V (DC) 4-poles in series	[kA]	–	–	–	–	–	–	–	–
	600 V (DC) 3-poles in series	[kA]	–	–	35	50	65	75	85	85
Mechanical life		[No. Operations]	25000		25000					
		[No. Hourly operations]	240		240					
Dimensions (Width x Depth x Height)	Fixed 3-poles	[mm]/[in]	[105 x 70 x 150] / [4.13 x 2.75 x 5.90]		[105 x 82.5 x 160] / [4.13 x 3.25 x 6.3]					
	4-poles	[mm]/[in]	[140 x 70 x 150] / [5.51 x 2.75 x 5.90]		[140 x 82.5 x 160] / [5.51 x 3.25 x 6.3]					
Weight	Fixed 3/4-poles	[kg]/[lbs]	[1.7 - 3.37] / [2.1 - 4.63]		[2.5 - 5.51] / [3.5 - 7.72]					
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	[3.24 - 7.14] / [4.1 - 9.04]		[4.19 - 9.24] / [5.52 - 12.17]					
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	–		[5 - 11.02] / [6.76 - 14.90]					
<b>Trip units for power distribution</b>										
TMF			■		■					
TMA			–		■					
TMG			–		–					

## Tmax XT circuit breakers for (DC) distribution



Molded case circuit breakers (MCCB)			XT5						XT6		
Frame Size	[A]		400-600						800		
Poles	[No.]		3, 4						3, 4		
Rated voltage (DC)	[V]		600						600		
Versions			Fixed, Plug-in, Withdrawable						Fixed, Withdrawable		
Interrupting ratings			N	S	H	L	V	X	N	S	H
	250 V (DC) 2 poles in series	[kA]	35	50	70	100	100	100	35	50	70
	500 V (DC) 2 poles in series	[kA]	25	35	50	70	100	100	35	35	50
	500 V (DC) 3-poles in series	[kA]	-	-	-	-	-	-	-	-	-
	500 V (DC) 4-poles in series	[kA]	-	-	-	-	-	-	-	-	-
	600 V (DC) 3-poles in series	[kA]	16	25	35	50	70	70	20	20	35
Mechanical life		[No. Operations]	20000						20000		
		[No. Hourly operations]	240						240		
Dimensions	Fixed 3-poles	[mm]/[in]	[140 x 103 x 205] / [5.51 x 4.05 x 8.07]						[210 x 103.5 x 268] / [8.27 x 4.07 x 10.55]		
(Width x Depth x Height)	4-poles	[mm]/[in]	[186 x 103 x 205] / [7.32 x 4.05 x 8.07]						[280 x 103.5 x 268] / [11.02 x 4.07 x 10.55]		
Weight	Fixed 3/4-poles	[kg]/[lbs]	-						-		
	Plug-in (EF) 3/4-poles	[kg]/[lbs]	-						-		
	Withdrawable (EF) 3/4-poles	[kg]/[lbs]	-						-		
<b>Trip units for power distribution</b>											
TMF			-						-		
TMA			■						■		
TMG			■						-		

## Tmax XT molded case switches (MCS)

Molded case switches are devices created from the corresponding circuit breakers and feature the same overall dimensions, versions, and can be fitted with the same accessories.

### Applications

These devices are mainly used as:

- switching and insulation devices for lines, bus bars or groups of apparatus;
- bus ties.

In the open position, the switch guarantees a sufficient insulation distance (between the contacts).

### Characteristics of molded case switches according to UL489 and CSA C22.2 No.5

		XT1D			XT2D					XT3D		XT4D				
Frame Size	[A]	125			125					225		150/250				
Poles	[No.]	3, 4			3, 4					3, 4		3, 4				
Rated service voltage	(AC) 50-60Hz [V]	600Y/347			600					600Y/347		600				
	(DC) [V]	500 4p series / 3p CB up to 250V DC 3p series			500 3p series					500 3p series		600 3p series				
Versions		Fixed, Plug-in			Fixed, Plug-in, Withdrawable					Fixed, Plug-in		Fixed, Plug-in, Withdrawable				
Interrupting Rating		N	S	H	N	S	H	L	V	N	S	N	S	H	L	V

### Characteristics of molded case switches according to IEC60947-3

Size		XT1D	XT3D	XT4D	XT5D	
Rated operating current. Ie	(AC) 50-60Hz	125	–	–	–	
AC-22A	415-440Vac	125	225	150/250	400	600
AC-23A		125	200	150/200	400	600
AC-22A	690V AC	125	225	150/250	400	600
AC-23A		–	200	150/200	400	600
Rated operating current. Ie	DC					
DC-22A	250V DC	125 - 2p in series	225 - 2p in series	150/250 - 2p in series	400 2p in series	600 2p in series
DC-23A		125 - 2p in series	200 - 2p in series	150/200 - 2p in series	400 2p in series	600 2p in series
DC-22A	500V DC	125 - 4P in series	225 - 3p in series	150/250 - 2p in series	400 2p in series	600 2p in series
DC-23A		125 - 4P in series	200 - 3p in series	150/200 - 2p in series	400 2p in series	600 2p in series
DC-22A	750V DC	–	–	–	400 3p in series	600 3p in series
DC-23A		–	–	–	400 3p in series	600 3p in series
Electrical life AC22 / AC23 (AC) 440 V In		–	–	–	5000	3000
Mechanical life		–	–	–	20000	20000

## Tmax XT molded case switches (MCS)

### Protection

Each molded case switch must be protected on the supply side by a coordinated device which safeguards it against short circuits.

The section "Coordination" in the table below shows the correspondence between each molded case switch and the relevant circuit breaker.

### Making capacity

The making capacity I<sub>cm</sub> is highly important since a molded case switch must be able to withstand the dynamic, thermal and current stresses which can occur during closing operations without being destroyed, right up to short circuit closing conditions.

**Characteristics of molded case switches according to UL489 and CSA C22.2 No.5**

		XT5D					XT6D			XT7D/XT7D M		
Frame Size	[A]	400 - 600					800			1000 - 1200		
Poles	[No.]	3, 4					3, 4			3, 4		
Rated service voltage	(AC) 50-60Hz [V]	600					600			600		
	(DC) [V]	600 3p series					600 3p series			-		
Versions		Fixed, Plug-in, Withdrawable					Fixed, Withdrawable			Fixed, Withdrawable		
Interrupting Rating		N	S	H	L	V	N	S	H	S	H	L

**Characteristics of molded case switches according to IEC60947-3**

Size		XT6D	XT7D	XT7D M
<b>Rated operating current. I<sub>e</sub></b>	<b>(AC) 50-60Hz</b>	-	-	-
AC-22A	415-440Vac	800	1000 - 1200	1000 - 1200
AC-23A		800	1000 - 1200	1000 - 1200
AC-22A	690V AC	800	1000 - 1200	1000 - 1200
AC-23A		800	1000 - 1200	1000 - 1200
<b>Rated operating current. I<sub>e</sub></b>	<b>DC</b>			
DC-22A	250V DC	800 - 2p in series	1000 - 1200 - 2p in series	1000 - 1200 - 2p in series
DC-23A		800 - 2p in series	1000 - 1200 - 2p in series	1000 - 1200 - 2p in series
DC-22A	500V DC	800 - 2p in series	1000 - 1200 - 3p in series	1000 - 1200 - 3p in series
DC-23A		800 - 2p in series	1000 - 1200 - 3p in series	1000 - 1200 - 3p in series
DC-22A	750V DC	800 - 3p in series	1000 - 1200 - 4p in series	1000 - 1200 - 4p in series
DC-23A		800 - 3p in series	1000 - 1200 - 4p in series	1000 - 1200 - 4p in series
Electrical life AC22 / AC23 (AC) 440 V In		3500	2500	2500
Mechanical life		20000	20000	20000

## Tmax XT molded case switches (MCS)

### Coordination

Supply side	XT1			XT3		XT2					XT4				
Version	N	S	H	N	S	N	S	H	L	V	N	S	H	L	V
SCCR 480 VAC [kA]	25	35	65	25	35	25	35	65	100	150	25	35	65	100	150
In															
XT1N-D	25	25	25			25	25	25	25	25					
XT1S-D	125	35	35				35	35	35	35					
XT1H-D			65					65	65	65					
XT2N-D	25	25	25			25	25	25	25	25					
XT2H-D	125		65					65	65	65					
XT2L-D									100	100					
XT2V-D							25			150					
XT3N-D	225	25	25	25	25	25	25	25	25	25	25 <sup>1</sup>	25 <sup>1</sup>	25 <sup>1</sup>	25 <sup>1</sup>	25 <sup>1</sup>
XT3S-D		35	35		35		35	35	35	35		35 <sup>1</sup>	35 <sup>1</sup>	35 <sup>1</sup>	35 <sup>1</sup>
XT4N-D	150 - 250	25	25	25	25 <sup>1</sup>	25 <sup>1</sup>	25	35	25	25	25	25 <sup>2</sup>	25 <sup>2</sup>	25 <sup>2</sup>	25 <sup>2</sup>
XT4S-D		35	35		35 <sup>1</sup>		35	35	35	35		35 <sup>2</sup>	35 <sup>2</sup>	35 <sup>2</sup>	35 <sup>2</sup>
XT4H-D			65					65	65	65			65 <sup>2</sup>	65 <sup>2</sup>	65 <sup>2</sup>
XT4L-D									100	100				100 <sup>2</sup>	100 <sup>2</sup>
XT4V-D										150					150 <sup>2</sup>
XT5N-D	400 - 600														
XT5S-D															
XT5H-D															
XT5L-D															
XT5V-D															
XT6N-D	600 - 800														
XT6S-D															
XT6H-D															
XT7S-D	800-1000-1200														
XT7H-D															
XT7L-D															

<sup>1</sup>The configuration is valid only with I1<225A setting on Tmax XT4 circuit breaker

<sup>2</sup>The configuration for Tmax XT4D 150 is valid only with I1<150A setting on Tmax XT4 circuit breaker





## Current Limiting

Existing UL circuit breakers Tmax XT2, XT4 and XT5 have undergone specific tests as per the UL 489. Standard in order to be classified as UL current limiting circuit breakers. They have specific characteristics in terms of limiting peak current and specific let-through energy.

According to the UL 489 Standard, current limiting circuit breakers will be marked "Current Limiting" on the front and will have a label on the right side specifying the peak current and specific let-through energy values. Accessories and trip are the same as available for standard UL Tmax MCCBs.

Circuit breaker	XT2			XT4			XT5		
Trip Units	TMF, TMA, Ekip			TMF, TMA, Ekip			TMF, TMA, Ekip		
In	Up to 125A <sup>1</sup>			Up to 250A <sup>2</sup>			Up to 600A		
Voltage	Up to 600V			Up to 600V			Up to 600V		
Breaking Capacity	H	L	V	H	L	V	H	L	V

<sup>1</sup>Includes TMF, TMA with In = 15-125A and Ekip with In= 10, 25, 60, 100, 125A

<sup>2</sup>Includes TMF, TMA with In = 25-250A and Ekip with In= 40, 60, 100, 150, 225, 250A

**100% rated circuit breakers**

All Tmax XT circuit breakers are available both as standard version and as 100% rated version. Because of the additional heat generated by 100% of continuous current rating, the use of specific 90°C rated wires sized per 75°C ampacity may be required.

<b>Fixed circuit breakers</b>	
<b>XT1</b>	Suitable for continuous operation at 100-percent of rating up to 100A with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire.
<b>XT2</b>	Suitable for continuous operation at 100-percent of rating up to 100A with thermal magnetic trip unit and up to 125A with electronic trip unit.
<b>XT3</b>	Suitable for continuous operation at 100-percent of rating up to 225A with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire.
<b>XT4</b>	Suitable for continuous operation at 100-percent of rating up to 250A, with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire. With 75°C wire suitable for continuous operation at 100-percent of rating up to 200A with lugs FC CuAl only.
<b>XT5 400</b>	Suitable for continuous operation at 100-percent of rating up to 400A. For XT5 V-X 90°C wire needed, the wire size shall be based on the ampacity of 75°C rated wire.
<b>XT5 600</b>	N-S-H-L versions suitable for continuous operation at 100-percent of rating up to 600A with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire.
<b>XT6</b>	Suitable for continuous operation at 100-percent of rating up to 800A with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire.
<b>XT7</b>	Suitable for continuous operation at 100-percent of rating up to 1200A with 90°C wire. The wire size shall be based on the ampacity of 75°C rated wire.

For 80% - 100% rated enclosure dimensions and further installation details, please refer to the document "Technical characteristics SACE Tmax XT UL/CSA" (1SDC 210199D0202)

## Circuit breakers for motor protection

### Main characteristics

When choosing and manufacturing a system for starting and monitoring motors, safety and reliability are important considerations. Motor starting is a particularly critical phase for the motor itself and for the installation powering it.

Every rated service needs to be adequately monitored and protected in order to deal with any faults that might occur. When it comes to direct starting, ABB SACE offers two different solutions:

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



Motor protection		XT1	XT2			XT3	XT4			
Frame size	[A]	125		125		225	250			
Poles	[No.]	3		3		3	3			
Rated service voltage	(AC) 50-60Hz [V]	480 V $\Delta$ <sup>(1)</sup>		600		480 V $\Delta$ <sup>1</sup>	600			
	(DC) [V]	500		500		500	600			
Versions		Fixed, Plug-in	Fixed, Plug-in, Withdrawable			Fixed, Plug-in	Fixed, Plug-in, Withdrawable			
Rating level		H	H	L	V	S	H	L	V	X
Trip units for motor protection		-	-	-	-	-	-	-	-	-
MA (MCP)		■	■	■	-	■	■	■	-	-
Ekip M Dip I (MCP)		-	■	■	■	-	■	■	■	■
Ekip M Dip LIU (MPCB)		-	■	■	■	-	■	■	■	■
Ekip M Touch LRIU (MPCB)		-	■	■	■	-	■	■	■	■

<sup>1</sup>600Y/347

## Circuit breakers for motor protection

### Main characteristics

Several different factors must be considered when choosing and coordinating the protection and operating devices, e.g.:

- the electrical specifications of the motor (type, power rating, efficiency,  $\cos\Phi$ );
- the starting type and diagram;
- the fault current and voltage in the part of the network where the motor is installed.

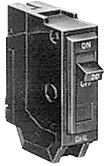


Motor protection		XT5						XT6			XT7		
Frame size	[A]	400 - 600						800			800 - 1000- 1200		
Poles	[No.]	3						3			3		
Rated service voltage	(AC) 50-60Hz [V]	600						600			600		
	(DC) [V]	600						600			600		
Versions		Fixed, Plug-in, Withdrawable						Fixed, Withdrawable			Fixed, Withdrawable		
Rating level		N	S	H	L	V	X	N	S	H	S	H	L
Trip units for motor protection		-	-	-	-	-	-	-	-	-	-	-	-
MA (MCP)		■	■	■	■	■	■	-	-	-	-	-	-
Ekip M Dip I (MCP)		■	■	■	■	■	■	■	■	■	■	■	■
Ekip M Dip LIU (MPCB)		■	■	■	■	■	■	■	■	■			
Ekip M Touch LRIU (MPCB)		■	■	■	■	■	■	-	-	-	■	■	■

## Q-Line Circuit Breakers

### Plug-in Circuit Breakers

### 120/240V Class



THQL1120

#### THQL and THQL 120/240 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	10 <sup>4</sup>	–	5kA	TQL1110
1	15 <sup>2</sup>	(1) 14-8 Cu/12-8 Al	10kA	THQL1115
1	20 <sup>2</sup>	(1) 14-8 Cu/12-8 Al	10kA	THQL1120
1	25	(1) 14-8 Cu/12-8 Al	10kA	THQL1125
1	30	(1) 14-8 Cu/12-8 Al	10kA	THQL1130
1	35	(1) 8-3 Cu/8-3 Al	10kA	THQL1135
1	40	(1) 8-3 Cu/8-3 Al	10kA	THQL1140
1	45	(1) 8-3 Cu/8-3 Al	10kA	THQL1145
1	50	(1) 8-3 Cu/8-3 Al	10kA	THQL1150
1	60	(1) 8-3 Cu/8-3 Al	10kA	THQL1160
1	70	(1) 6-1/0 Cu/4-1/0 Al	10kA	THQL1170

#### THQL 120/240 Vac, with Factory Installed Shunt

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	(1) 14-8 Cu/12-8 Al	10kA	THQL1115ST1
1	20	(1) 14-8 Cu/12-8 Al	10kA	THQL1120ST1
1	30	(1) 14-8 Cu/12-8 Al	10kA	THQL1130ST1
1	35	(1) 8-3 Cu/8-3 Al	10kA	THQL1135ST1
1	40	(1) 8-3 Cu/8-3 Al	10kA	THQL1140ST1
1	45	(1) 8-3 Cu/8-3 Al	10kA	THQL1145ST1
1	50	(1) 8-3 Cu/8-3 Al	10kA	THQL1150ST1



THQL1130ST1

#### TQL and THQL 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	10 <sup>4</sup>	–	5kA	TQL2110
2	15	(1) 14-8 Cu/12-8 Al	10kA	THQL2115
2	20	(1) 14-8 Cu/12-8 Al	10kA	THQL2120
2	25	(1) 14-8 Cu/12-8 Al	10kA	THQL2125
2	30	(1) 14-8 Cu/12-8 Al	10kA	THQL2130
2	35	(1) 8-3 Cu/8-3 Al	10kA	THQL2135
2	40	(1) 8-3 Cu/8-3 Al	10kA	THQL2140
2	45	(1) 8-3 Cu/8-3 Al	10kA	THQL2145
2	50	(1) 8-3 Cu/8-3 Al	10kA	THQL2150
2	60	(1) 8-3 Cu/8-3 Al	10kA	THQL2160
2	70	(1) 6-1/0 Cu/4-1/0 Al	10kA	THQL2170
2	80	(1) 6-1/0 Cu/4-1/0 Al	10kA	THQL2180
2	90	(1) 6-1/0 Cu/4-1/0 Al	10kA	THQL2190
2	100	(1) 6-1/0 Cu/4-1/0 Al	10kA	THQL21100
2	110	(1) 2-2/0 Cu/2-2/0 Al	10kA	THQL21110
2	125	(1) 2-2/0 Cu/2-2/0 Al	10kA	THQL21125 <sup>3</sup>



THQP130

#### THQP 120/240 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQP115
1	20	14-8 Cu/12-8 Al	10kA	THQP120
1	25	14-8 Cu/12-8 Al	10kA	THQP125
1	30	8-4 Cu/8-4 Al	10kA	THQP130
1	35	8-4 Cu/8-4 Al	10kA	THQP135
1	40	8-4 Cu/8-4 Al	10kA	THQP140
1	45	8-4 Cu/8-4 Al	10kA	THQP145
1	50	8-4 Cu/8-4 Al	10kA	THQP150



THQP230

#### THQP 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQP215
2	20	14-8 Cu/12-8 Al	10kA	THQP220
2	25	14-8 Cu/12-8 Al	10kA	THQP225
2	30	8-4 Cu/8-4 Al	10kA	THQP230
2	35	8-4 Cu/8-4 Al	10kA	THQP235
2	40	8-4 Cu/8-4 Al	10kA	THQP240
2	45	8-4 Cu/8-4 Al	10kA	THQP245
2	50	8-4 Cu/8-4 Al	10kA	THQP250

<sup>1</sup> Solid or stranded for 14-10 AWG.

<sup>2</sup> UL listed as SWD (Switching Duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

<sup>3</sup> Recommended for use as main or submain breaker only.

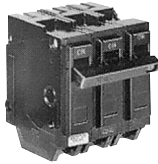
<sup>4</sup> Not UL listed.

UL listed as HACR (heating, air conditioning and refrigeration).

# Q-Line Circuit Breakers

## Plug-in Circuit Breakers

### 240V Class



THQL32015



THQL2120ST1



THQL32020ST1



THQL1120AF2t

#### TQL and THQL 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	10	-	5kA	TQL22010
2	15	14-8 Cu/12-8 Al	10kA	THQL22015
2	20	14-8 Cu/12-8 Al	10kA	THQL22020
2	25	14-8 Cu/12-8 Al	10kA	THQL22025
2	30	14-8 Cu/12-8 Al	10kA	THQL22030
2	35	8-3 Cu/8-3 Al	10kA	THQL22035
2	40	8-3 Cu/8-3 Al	10kA	THQL22040
2	45	8-3 Cu/8-3 Al	10kA	THQL22045
2	50	8-3 Cu/8-3 Al	10kA	THQL22050
2	60	8-3 Cu/8-3 Al	10kA	THQL22060
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQL22070
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQL22080
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQL22090
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQL22100
3	10	-	5kA	TQL32010
3	15	14-8 Cu/12-8 Al	10kA	THQL32015
3	20	14-8 Cu/12-8 Al	10kA	THQL32020
3	25	14-8 Cu/12-8 Al	10kA	THQL32025
3	30	14-8 Cu/12-8 Al	10kA	THQL32030
3	35	8-3 Cu/8-3 Al	10kA	THQL32035
3	40	8-3 Cu/8-3 Al	10kA	THQL32040
3	45	8-3 Cu/8-3 Al	10kA	THQL32045
3	50	8-3 Cu/8-3 Al	10kA	THQL32050
3	60	8-3 Cu/8-3 Al	10kA	THQL32060
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQL32070
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQL32080
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQL32090
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQL32100

15-100 ampere UL Listed as HACR (heating, air conditioning and refrigeration).

#### THQL 120/240 Vac, Internal Common Trip with Factory Installed Shunt

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL2115ST1
2	20	14-8 Cu/12-8 Al	10kA	THQL2120ST1
2	30	14-8 Cu/12-8 Al	10kA	THQL2130ST1
2	35	8-3 Cu/8-3 Al	10kA	THQL2135ST1
2	40	8-3 Cu/8-3 Al	10kA	THQL2140ST1
2	45	8-3 Cu/8-3 Al	10kA	THQL2145ST1
2	50	8-3 Cu/8-3 Al	10kA	THQL2150ST1
2	60	8-3 Cu/8-3 Al	10kA	THQL2160ST1
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQL2170ST1
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQL2180ST1
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQL2190ST1
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQL21100ST1
3	20	14-8 Cu/12-8 Al	10kA	THQL32020ST1
3	30	14-8 Cu/12-8 Al	10kA	THQL32030ST1
3	40	8-3 Cu/8-3 Al	10kA	THQL32040ST1
3	50	8-3 Cu/8-3 Al	10kA	THQL32050ST1
3	60	8-3 Cu/8-3 Al	10kA	THQL32060ST1
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQL32070ST1
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQL32080ST1
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQL32090ST1
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQL32100ST1

#### THQL and THHQL Vac Arc Fault

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-10 Cu/14-10 Al	10kA	THQL1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	10kA	THQL1120AF2 <sup>2</sup>
1	15	14-10 Cu/14-10 Al	22kA	THHQL1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	22kA	THHQL1120AF2 <sup>2</sup>

#### Dual Function GFCI/AFCI Ground Fault & Combination Arc Fault Circuit Breaker

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115DF
1	20	14-8 Cu/12-8 Al	10kA	THQL1120DF
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115DF
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120DF

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>Combination AFCI compliant with NEC 2008 and later.

## Q-Line Circuit Breakers

### Plug-in Circuit Breakers

### 240V Class



THQL1120GFT



THQL1120GFEP



THQL2115GFEP



THQL2120HID

#### THQL and THHQL 120/240 Vac, Ground Fault with Self-Test Feature

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115GFT
1	20	14-8 Cu/12-8 Al	10kA	THQL1120GFT
1	25	14-8 Cu/12-8 Al	10kA	THQL1125GFT
1	30	14-8 Cu/12-8 Al	10kA	THQL1130GFT
2	15	14-8 Cu/12-8 Al	10kA	THQL2115GFT
2	20	14-8 Cu/12-8 Al	10kA	THQL2120GFT
2	25	14-8 Cu/12-8 Al	10kA	THQL2125GFT
2	30	14-8 Cu/12-8 Al	10kA	THQL2130GFT
2	40	8-3 Cu/8-3 Al	10kA	THQL2140GFT <sup>3</sup>
2	50	8-3 Cu/8-3 Al	10kA	THQL2150GFT <sup>3</sup>
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115GFT
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120GFT
1	25	14-8 Cu/12-8 Al	22kA	THHQL1125GFT
1	30	14-8 Cu/12-8 Al	22kA	THHQL1130GFT
2	15	14-8 Cu/12-8 Al	22kA	THHQL2115GFT
2	20	14-8 Cu/12-8 Al	22kA	THHQL2120GFT
2	25	14-8 Cu/12-8 Al	22kA	THHQL2125GFT
2	30	14-8 Cu/12-8 Al	22kA	THHQL2130GFT

#### THQL and THHQL 120 Vac, Equipment Protection Ground Fault Circuit Breakers Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115GFEP
1	20	14-8 Cu/12-8 Al	10kA	THQL1120GFEP
1	30	14-8 Cu/12-8 Al	10kA	THQL1130GFEP

#### THQL and THHQL 120/240 Vac or 208Y/120 Vac, Equipment Protection Ground Fault Circuit Breakers

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac or 208Y/120 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL2115GFEP
2	20	14-8 Cu/12-8 Al	10kA	THQL2120GFEP
2	30	14-8 Cu/12-8 Al	10kA	THQL2130GFEP
2	15	14-8 Cu/12-8 Al	22kA	THHQL2115GFEP
2	20	14-8 Cu/12-8 Al	22kA	THHQL2120GFEP

#### THQL and THHQL 120/240 Vac, High Intensity Discharge Lighting Loads

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115HID <sup>2</sup>
1	20	14-8 Cu/12-8 Al	10kA	THQL1120HID <sup>2</sup>
1	25	14-8 Cu/12-8 Al	10kA	THQL1125HID
1	30	14-8 Cu/12-8 Al	10kA	THQL1130HID
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115HID <sup>2</sup>
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120HID <sup>2</sup>
1	25	14-8 Cu/12-8 Al	22kA	THHQL1125HID
1	30	14-8 Cu/12-8 Al	22kA	THHQL1130HID

UL listed as HID.

#### THQL and THHQL 120/240 Vac, High Intensity Discharge Lighting Loads

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL2115HID
2	20	14-8 Cu/12-8 Al	10kA	THQL2120HID
2	25	14-8 Cu/12-8 Al	10kA	THQL2125HID
2	30	14-8 Cu/12-8 Al	10kA	THQL2130HID
2	15	14-8 Cu/12-8 Al	22kA	THHQL2115HID
2	20	14-8 Cu/12-8 Al	22kA	THHQL2120HID
2	25	14-8 Cu/12-8 Al	22kA	THHQL2125HID
2	30	14-8 Cu/12-8 Al	22kA	THHQL2130HID

UL listed as HID.

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>UL listed as SWD (switching duty). Suitable for 120 Vac fluorescent lighting loads.

<sup>3</sup>UL & CSA



# Q-Line Circuit Breakers

## Plug-in Circuit Breakers

### 240V Class



THQL1120HM

#### THQL 120/240 Vac, High In-Rush Loads

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQL1115HM
1	20	14-8 Cu/12-8 Al	10kA	THQL1120HM
1	25	14-8 Cu/12-8 Al	10kA	THQL1125HM
1	30	14-8 Cu/12-8 Al	10kA	THQL1130HM
1	40	8-3 Cu/8-3 Al	10kA	THQL1140HM
1	50	8-3 Cu/8-3 Al	10kA	THQL1150HM



THHQL1120

#### THQL 120/240 Vac, Thermal Magnetic Pole plus Nonautomatic Pole For Switching Neutral

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQL21WY15
2	20	14-8 Cu/12-8 Al	10kA	THQL21WY20
2	25	14-8 Cu/12-8 Al	10kA	THQL21WY25
2	30	14-8 Cu/12-8 Al	10kA	THQL21WY30
3	15	14-8 Cu/12-8 Al	10kA	THQL31WY15
3	20	14-8 Cu/12-8 Al	10kA	THQL31WY20
3	25	14-8 Cu/12-8 Al	10kA	THQL31WY25
3	30	14-8 Cu/12-8 Al	10kA	THQL31WY30

#### THHQL 120 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	22kA	THHQL1115 <sup>2</sup>
1	20	14-8 Cu/12-8 Al	22kA	THHQL1120 <sup>2</sup>
1	25	14-8 Cu/12-8 Al	22kA	THHQL1125
1	30	8-3 Cu/8-3 Al	22kA	THHQL1130
1	35	8-3 Cu/8-3 Al	22kA	THHQL1135
1	40	8-3 Cu/8-3 Al	22kA	THHQL1140
1	45	8-3 Cu/8-3 Al	22kA	THHQL1145
1	50	8-3 Cu/8-3 Al	22kA	THHQL1150
1	60	8-3 Cu/8-3 Al	22kA	THHQL1160
1	70	6-1/0 Cu/4-1/0 Al	22kA	THHQL1170

#### THHQL 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQL2115
2	20	14-8 Cu/12-8 Al	22kA	THHQL2120
2	25	14-8 Cu/12-8 Al	22kA	THHQL2125
2	30	8-3 Cu/8-3 Al	22kA	THHQL2130
2	35	8-3 Cu/8-3 Al	22kA	THHQL2135
2	40	8-3 Cu/8-3 Al	22kA	THHQL2140
2	45	8-3 Cu/8-3 Al	22kA	THHQL2145
2	50	8-3 Cu/8-3 Al	22kA	THHQL2150
2	60	8-3 Cu/8-3 Al	22kA	THHQL2160
2	70	6-1/0 Cu/4-1/0 Al	22kA	THHQL2170
2	80	6-1/0 Cu/4-1/0 Al	22kA	THHQL2180
2	90	6-1/0 Cu/4-1/0 Al	22kA	THHQL2190
2	100	6-1/0 Cu/4-1/0 Al	22kA	THHQL21100
2	110	2-2/0 Cu/2-2/0 Al	22kA	THHQL21110
2	125	2-2/0 Cu/2-2/0 Al	22kA	THHQL21125

<sup>1</sup>Solid or stranded for 14-10 AWG.

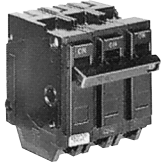
<sup>2</sup>UL listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

UL listed HACR (heating, air conditioning and refrigeration).

## Q-Line Circuit Breakers

### Plug-in Circuit Breakers

### 240V Class



THHQL32015

#### THHQL 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQL22015
2	20	14-8 Cu/12-8 Al	22kA	THHQL22020
2	25	14-8 Cu/12-8 Al	22kA	THHQL22025
2	30	8-3 Cu/8-3 Al	22kA	THHQL22030
2	35	8-3 Cu/8-3 Al	22kA	THHQL22035
2	40	8-3 Cu/8-3 Al	22kA	THHQL22040
2	45	8-3 Cu/8-3 Al	22kA	THHQL22045
2	50	8-3 Cu/8-3 Al	22kA	THHQL22050
2	60	8-3 Cu/8-3 Al	22kA	THHQL22060
2	70	6-1/0 Cu/4-1/0 Al	22kA	THHQL22070
2	80	6-1/0 Cu/4-1/0 Al	22kA	THHQL22080
2	90	6-1/0 Cu/4-1/0 Al	22kA	THHQL22090
2	100	6-1/0 Cu/4-1/0 Al	22kA	THHQL22100
3	15	14-8 Cu/12-8 Al	22kA	THHQL32015
3	20	14-8 Cu/12-8 Al	22kA	THHQL32020
3	25	14-8 Cu/12-8 Al	22kA	THHQL32025
3	30	8-3 Cu/8-3 Al	22kA	THHQL32030
3	35	8-3 Cu/8-3 Al	22kA	THHQL32035
3	40	8-3 Cu/8-3 Al	22kA	THHQL32040
3	45	8-3 Cu/8-3 Al	22kA	THHQL32045
3	50	8-3 Cu/8-3 Al	22kA	THHQL32050
3	60	8-3 Cu/8-3 Al	22kA	THHQL32060
3	70	6-1/0 Cu/4-1/0 Al	22kA	THHQL32070
3	80	6-1/0 Cu/4-1/0 Al	22kA	THHQL32080
3	90	6-1/0 Cu/4-1/0 Al	22kA	THHQL32090
3	100	6-1/0 Cu/4-1/0 Al	22kA	THHQL32100

#### TXQL 120/240 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	65kA	TXQL1115 <sup>2</sup>
1	20	14-8 Cu/12-8 Al	65kA	TXQL1120 <sup>2</sup>
1	25	14-8 Cu/12-8 Al	65kA	TXQL1125
1	30	14-8 Cu/12-8 Al	65kA	TXQL1130

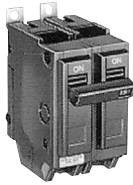
#### TXQL 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	65kA	TXQL2115
2	20	14-8 Cu/12-8 Al	65kA	TXQL2120
2	25	14-8 Cu/12-8 Al	65kA	TXQL2125
2	30	14-8 Cu/12-8 Al	65kA	TXQL2130
3	15	14-8 Cu/12-8 Al	65kA	TXQL32015
3	20	14-8 Cu/12-8 Al	65kA	TXQL32020
3	25	14-8 Cu/12-8 Al	65kA	TXQL32025
3	30	14-8 Cu/12-8 Al	65kA	TXQL32030

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>UL listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.  
UL listed HACR (heating, air conditioning and refrigeration).

**Q-Line Circuit Breakers**  
 Bolt-on Circuit Breakers  
 240V Class



THQB2115

**TQB, THQB 120/240 Vac**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	10	14-8 Cu/12-8 Al	5kA	TQB1110 <sup>3</sup>
1	15	14-8 Cu/12-8 Al	10kA	THQB1115 <sup>2</sup>
1	20	14-8 Cu/12-8 Al	10kA	THQB1120 <sup>2</sup>
1	25	14-8 Cu/12-8 Al	10kA	THQB1125
1	30	14-8 Cu/12-8 Al	10kA	THQB1130
1	35	8-3 Cu/8-3 Al	10kA	THQB1135
1	40	8-3 Cu/8-3 Al	10kA	THQB1140
1	45	8-3 Cu/8-3 Al	10kA	THQB1145
1	50	8-3 Cu/8-3 Al	10kA	THQB1150
1	60	8-3 Cu/8-3 Al	10kA	THQB1160
1	70	6-1/0 Cu/4-1/0 Al	10kA	THQB1170

**TQB, THQB 120/240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	10	14-8 Cu/12-8 Al	5kA	TQB2110 <sup>3</sup>
2	15	14-8 Cu/12-8 Al	10kA	THQB2115
2	20	14-8 Cu/12-8 Al	10kA	THQB2120
2	25	14-8 Cu/12-8 Al	10kA	THQB2125
2	30	14-8 Cu/12-8 Al	10kA	THQB2130
2	35	8-3 Cu/8-3 Al	10kA	THQB2135
2	40	8-3 Cu/8-3 Al	10kA	THQB2140
2	45	8-3 Cu/8-3 Al	10kA	THQB2145
2	50	8-3 Cu/8-3 Al	10kA	THQB2150
2	60	8-3 Cu/8-3 Al	10kA	THQB2160
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQB2170
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQB2180
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQB2190
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQB21100

**TQB, THQB 240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	10	14-8 Cu/12-8 Al	5kA	TQB22010 <sup>3</sup>
2	15	14-8 Cu/12-8 Al	10kA	THQB22015
2	20	14-8 Cu/12-8 Al	10kA	THQB22020
2	25	14-8 Cu/12-8 Al	10kA	THQB22025
2	30	14-8 Cu/12-8 Al	10kA	THQB22030
2	35	8-3 Cu/8-3 Al	10kA	THQB22035
2	40	8-3 Cu/8-3 Al	10kA	THQB22040
2	45	8-3 Cu/8-3 Al	10kA	THQB22045
2	50	8-3 Cu/8-3 Al	10kA	THQB22050
2	60	8-3 Cu/8-3 Al	10kA	THQB22060
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQB22070
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQB22080
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQB22090
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQB22100
3	10	14-8 Cu/12-8 Al	5kA	TQB32010 <sup>3</sup>
3	15	14-8 Cu/12-8 Al	10kA	THQB32015
3	20	14-8 Cu/12-8 Al	10kA	THQB32020
3	25	14-8 Cu/12-8 Al	10kA	THQB32025
3	30	14-8 Cu/12-8 Al	10kA	THQB32030
3	35	8-3 Cu/8-3 Al	10kA	THQB32035
3	40	8-3 Cu/8-3 Al	10kA	THQB32040
3	45	8-3 Cu/8-3 Al	10kA	THQB32045
3	50	8-3 Cu/8-3 Al	10kA	THQB32050
3	60	8-3 Cu/8-3 Al	10kA	THQB32060
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQB32070
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQB32080
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQB32090
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQB32100

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>UL listed as SWD (Switching Duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

<sup>3</sup>Not UL listed.

UL listed HACR (heating, air conditioning and refrigeration).

## Q-Line Circuit Breakers

### Bolt-on Circuit Breakers

### 240V Class



THQB1120AF2

#### THQB and THHQB 120/240 Vac Arc Fault (Single pole)

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-10 Cu/14-10 Al	10kA	THQB1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	10kA	THQB1120AF22
1	15	14-10 Cu/14-10 Al	22kA	THHQB1115AF2 <sup>2</sup>
1	20	14-10 Cu/14-10 Al	22kA	THHQB1120AF2 <sup>2</sup>



THQB2120GFT

#### THQB, THHQB 120/240 Vac, Ground Fault Circuit Interrupters, Self Testing, cULus

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8Cu/12-8 Al	10kA	THQB1115GFT
1	20	14-8Cu/12-8 Al	10kA	THQB1120GFT
1	25	14-8 Cu/12-8 Al	10kA	THQB1125GFT
1	30	14-8Cu/12-8 Al	10kA	THQB1130GFT
1	15	14-8Cu/12-8 Al	22kA	THHQB1115GFT
1	20	14-8Cu/12-8 Al	22kA	THHQB1120GFT
1	25	14-8 Cu/12-8 Al	22kA	THHQB1125GFT
1	30	14-8Cu/12-8 Al	22kA	THHQB1130GFT
2	15	14-8Cu/12-8 Al	10kA	THQB2115GFT
2	20	14-8Cu/12-8 Al	10kA	THQB2120GFT
2	25	14-8 Cu/12-8 Al	10kA	THQB2125GFT
2	30	14-8Cu/12-8 Al	10kA	THQB2130GFT
2	15	14-8Cu/12-8 Al	22kA	THHQB2115GFT
2	20	14-8Cu/12-8 Al	22kA	THHQB2120GFT
2	25	14-8Cu/12-8 Al	22kA	THHQB2125GFT
2	30	14-8Cu/12-8 Al	22kA	THHQB2130GFT

#### THQB 120 Vac, Ground Fault Circuit Interrupters (30 ma); cULus

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQB1115GFEP
1	20	14-8 Cu/12-8 Al	10kA	THQB1120GFEP
1	30	14-8 Cu/12-8 Al	10kA	THQB1130GFEP



THQB1115GFEP

#### THHQB 120 Vac, Ground Fault Circuit Interrupters, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQB2115GFEP
2	20	14-8 Cu/12-8 Al	22kA	THHQB2120GFEP
2	30	14-8 Cu/12-8 Al	22kA	THHQB2130GFEP



THQB2140GFEP

#### THQB 120/240 or 208Y/120 Vac, Ground Fault Circuit Interrupters (30 ma); cULus Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQB2115GFEP
2	20	14-8 Cu/12-8 Al	10kA	THQB2120GFEP
2	30	14-8 Cu/12-8 Al	10kA	THQB2130GFEP
2	40	14-8 Cu/12-8 Al	10kA	THQB2140GFEP

<sup>1</sup>Solid or stranded for 14-10 AWG.<sup>2</sup>Combination AFCI compliant with NEC 2008 and later.

**Q-Line Circuit Breakers**  
 Bolt-on Circuit Breakers  
 240V Class



THQB32020ST1

**THQB, THHQB 120/240 Vac, High Intensity Discharge Lighting Loads<sup>1</sup>**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10kA	THQB1115HID <sup>3</sup>
1	20	14-8 Cu/12-8 Al	10kA	THQB1120HID <sup>3</sup>
1	25	14-8 Cu/12-8 Al	10kA	THQB1125HID
1	30	14-8 Cu/12-8 Al	10kA	THQB1130HID
1	15	14-8 Cu/12-8 Al	22kA	THHQB1115HID <sup>3</sup>
1	20	14-8 Cu/12-8 Al	22kA	THHQB1120HID <sup>3</sup>
1	25	14-8 Cu/12-8 Al	22kA	THHQB1125HID
1	30	14-8 Cu/12-8 Al	22kA	THHQB1130HID
2	15	14-8 Cu/12-8 Al	10kA	THQB2115HID
2	20	14-8 Cu/12-8 Al	10kA	THQB2120HID
2	25	14-8 Cu/12-8 Al	10kA	THQB2125HID
2	30	14-8 Cu/12-8 Al	10kA	THQB2130HID

**THHQB 120/240 Vac, Internal Common Trip, High Intensity Discharge Lighting Loads<sup>1</sup>**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQB2115HID
2	20	14-8 Cu/12-8 Al	22kA	THHQB2120HID
2	25	14-8 Cu/12-8 Al	22kA	THHQB2125HID
2	30	14-8 Cu/12-8 Al	22kA	THHQB2130HID

**THQB 120 Vac with Factory Installed 120 Vac Shunt Trip<sup>4</sup>**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120 Vac Interrupting Rating	Product Number
1	20	14-8 Cu/12-8 Al	10kA	THQB1120ST1

**THQB 120 Vac, Internal Common Trip with Factory Installed 120 Vac Shunt Trip<sup>4</sup>**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120 Vac Interrupting Rating	Product Number
2	20	14-8 Cu/12-8 Al	10kA	THQB2120ST1
2	30	14-8 Cu/12-8 Al	10kA	THQB2130ST1
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQB21100ST1
3	20	14-8 Cu/12-8 Al	10kA	THQB32020ST1
3	30	14-8 Cu/12-8 Al	10kA	THQB32030ST1
3	35	8-3 Cu/8-3 Al	10kA	THQB32035ST1
3	40	8-3 Cu/8-3 Al	10kA	THQB32040ST1
3	50	8-3 Cu/8-3 Al	10kA	THQB32050ST1
3	60	8-3 Cu/8-3 Al	10kA	THQB32060ST1
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQB32070ST1
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQB32080ST1
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQB32090ST1
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQB32100ST1

**THQB 120 Vac with Switching Neutral Single Thermal Magnetic Pole;  
 Single Nonautomatic Pole**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	10kA	THQB21WY15
2	20	14-8 Cu/12-8 Al	10kA	THQB21WY20
2	25	14-8 Cu/12-8 Al	10kA	THQB21WY25
2	30	14-8 Cu/12-8 Al	10kA	THQB21WY30

**THQB 120 Vac with Switching Neutral Two Thermal Magnetic Pole;  
 Single Nonautomatic Pole**

# of Poles	Ampere Rating	Wire Range <sup>2</sup>	120 Vac Interrupting Rating	Product Number
3	15	14-8 Cu/12-8 Al	10kA	THQB31WY15
3	20	14-8 Cu/12-8 Al	10kA	THQB31WY20
3	25	14-8 Cu/12-8 Al	10kA	THQB31WY25
3	30	14-8 Cu/12-8 Al	10kA	THQB31WY30

<sup>1</sup>UL listed as HID (high intensity discharge).

<sup>2</sup>Solid or stranded for 14-10 AWG.

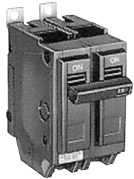
<sup>3</sup>UL listed as SWD (switching duty). Suitable for switching 120 Vac fluorescent lighting loads.

<sup>4</sup>20-60 ampere are UL listed as HACR (heating, air conditioning and refrigeration).

## Q-Line Circuit Breakers

### Bolt-on Circuit Breakers

### 240V Class



THHQB2115

#### THHQB 120/240 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	22kA	THHQB1115 <sup>2</sup>
1	20	14-8 Cu/12-8 Al	22kA	THHQB1120 <sup>2</sup>
1	25	14-8 Cu/12-8 Al	22kA	THHQB1125
1	30	14-8 Cu/12-8 Al	22kA	THHQB1130
1	35	8-3 Cu/8-3 Al	22kA	THHQB1135
1	40	8-3 Cu/8-3 Al	22kA	THHQB1140
1	45	8-3 Cu/8-3 Al	22kA	THHQB1145
1	50	8-3 Cu/8-3 Al	22kA	THHQB1150
1	60	8-3 Cu/8-3 Al	22kA	THHQB1160
1	70	6-1/0 Cu/4-1/0 Al	22kA	THHQB1170

#### THQB/THHQB 120/240 Vac, Low Magnetic Pickup

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	10 kA	THQB1115LM <sup>2</sup>
1	20	14-8 Cu/12-8 Al	10 kA	THQB1120LM <sup>2</sup>
1	15	14-8 Cu/12-8 Al	22 kA	THHQB1115LM
1	20	14-8 Cu/12-8 Al	22 kA	THHQB1120LM
2	15	14-8 Cu/12-8 Al	10 kA	THQB2115LM
2	20	14-8 Cu/12-8 Al	10 kA	THQB2120LM
2	15	14-8 Cu/12-8 Al	22 kA	THHQB2115LM
2	20	14-8 Cu/12-8 Al	22 kA	THHQB2120LM

#### THHQB 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQB2115
2	20	14-8 Cu/12-8 Al	22kA	THHQB2120
2	25	14-8 Cu/12-8 Al	22kA	THHQB2125
2	30	14-8 Cu/12-8 Al	22kA	THHQB2130
2	35	8-3 Cu/8-3 Al	22kA	THHQB2135
2	40	8-3 Cu/8-3 Al	22kA	THHQB2140
2	45	8-3 Cu/8-3 Al	22kA	THHQB2145
2	50	8-3 Cu/8-3 Al	22kA	THHQB2150
2	60	8-3 Cu/8-3 Al	22kA	THHQB2160
2	70	6-1/0 Cu/4-1/0 Al	22kA	THHQB2170
2	80	6-1/0 Cu/4-1/0 Al	22kA	THHQB2180
2	90	6-1/0 Cu/4-1/0 Al	22kA	THHQB2190
2	100	6-1/0 Cu/4-1/0 Al	22kA	THHQB21100

#### THHQB 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQB22015
2	20	14-8 Cu/12-8 Al	22kA	THHQB22020
2	25	14-8 Cu/12-8 Al	22kA	THHQB22025
2	30	14-8 Cu/12-8 Al	22kA	THHQB22030
2	35	8-3 Cu/8-3 Al	22kA	THHQB22035
2	40	8-3 Cu/8-3 Al	22kA	THHQB22040
2	45	8-3 Cu/8-3 Al	22kA	THHQB22045
2	50	8-3 Cu/8-3 Al	22kA	THHQB22050
2	60	8-3 Cu/8-3 Al	22kA	THHQB22060
2	70	6-1/0 Cu/4-1/0 Al	22kA	THHQB22070
2	80	6-1/0 Cu/4-1/0 Al	22kA	THHQB22080
2	90	6-1/0 Cu/4-1/0 Al	22kA	THHQB22090
2	100	6-1/0 Cu/4-1/0 Al	22kA	THHQB22100
3	15	14-8 Cu/12-8 Al	22kA	THHQB32015
3	20	14-8 Cu/12-8 Al	22kA	THHQB32020
3	25	14-8 Cu/12-8 Al	22kA	THHQB32025
3	30	14-8 Cu/12-8 Al	22kA	THHQB32030
3	35	8-3 Cu/8-3 Al	22kA	THHQB32035
3	40	8-3 Cu/8-3 Al	22kA	THHQB32040
3	45	8-3 Cu/8-3 Al	22kA	THHQB32045
3	50	8-3 Cu/8-3 Al	22kA	THHQB32050
3	60	8-3 Cu/8-3 Al	22kA	THHQB32060
3	70	6-1/0 Cu/4-1/0 Al	22kA	THHQB32070
3	80	6-1/0 Cu/4-1/0 Al	22kA	THHQB32080
3	90	6-1/0 Cu/4-1/0 Al	22kA	THHQB32090
3	100	6-1/0 Cu/4-1/0 Al	22kA	THHQB32100

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>UL listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.  
UL listed HACR (heating, air conditioning and refrigeration).

**Q-Line Circuit Breakers**  
 Bolt-on Circuit Breakers  
 240V Class

**TXQB 120/240 Vac**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	65kA	TXQB1115 <sup>2</sup>
1	20	14-8 Cu/12-8 Al	65kA	TXQB1120 <sup>2</sup>
1	25	14-8 Cu/12-8 Al	65kA	TXQB1125
1	30	14-8 Cu/12-8 Al	65kA	TXQB1130

**TXQB 120/240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	65kA	TXQB2115
2	20	14-8 Cu/12-8 Al	65kA	TXQB2120
2	25	14-8 Cu/12-8 Al	65kA	TXQB2125
2	30	14-8 Cu/12-8 Al	65kA	TXQB2130

**TXQB 240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number
3	15	14-8 Cu/12-8 Al	65kA	TXQB32015
3	20	14-8 Cu/12-8 Al	65kA	TXQB32020
3	25	14-8 Cu/12-8 Al	65kA	TXQB32025
3	30	14-8 Cu/12-8 Al	65kA	TXQB32030

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>UL listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads. UL listed HACR (heating, air conditioning and refrigeration).

## Q-Line Circuit Breakers

Cable-in Cable-out (lug-lug)  
240V Class

### TQC, THQC, THHQC 120/240 Vac

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number <sup>2</sup>	120/240 Vac Interrupting Rating	Product Number <sup>2</sup>
1	10	14-4 Cu/12-2 Al	5kA	TQC1110WL	–	–
1	15	14-8 Cu/12-8 Al	10kA	THQC1115WL <sup>3,4</sup>	22kA	THHQC1115WL <sup>3</sup>
1	20	14-8 Cu/12-8 Al	10kA	THQC1120WL <sup>3,4</sup>	22kA	THHQC1120WL <sup>3</sup>
1	25	14-8 Cu/12-8 Al	10kA	THQC1125WL <sup>3</sup>	22kA	THHQC1125WL <sup>3</sup>
1	30	14-8 Cu/12-8 Al	10kA	THQC1130WL <sup>3</sup>	22kA	THHQC1130WL <sup>3</sup>
1	35	8-3 Cu/8-3 Al	10kA	THQC1135WL <sup>3</sup>	22kA	THHQC1135WL <sup>3</sup>
1	40	8-3 Cu/8-3 Al	10kA	THQC1140WL <sup>3</sup>	22kA	THHQC1140WL <sup>3</sup>
1	45	8-3 Cu/8-3 Al	10kA	THQC1145WL <sup>3</sup>	22kA	THHQC1145WL <sup>3</sup>
1	50	8-3 Cu/8-3 Al	10kA	THQC1150WL <sup>3</sup>	22kA	THHQC1150WL <sup>3</sup>
1	60	8-3 Cu/8-3 Al	10kA	THQC1160WL <sup>3</sup>	22kA	THHQC1160WL <sup>3</sup>
1	70	6-1/0 Cu/4-1/0 Al	10kA	THQC1170WL	22kA	THHQC1170WL

### TQC, THQC, THHQC 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number <sup>2</sup>	120/240 Vac Interrupting Rating	Product Number <sup>2</sup>
2	10	14-4 Cu/12-2 Al	5kA	TQC2110WL	–	–
2	15	14-8 Cu/12-8 Al	10kA	THQC2115WL <sup>3</sup>	22kA	THHQC2115WL <sup>3</sup>
2	20	14-8 Cu/12-8 Al	10kA	THQC2120WL <sup>3</sup>	22kA	THHQC2120WL <sup>3</sup>
2	25	14-8 Cu/12-8 Al	10kA	THQC2125WL <sup>3</sup>	–	–
2	30	14-8 Cu/12-8 Al	10kA	THQC2130WL <sup>3</sup>	22kA	THHQC2130WL <sup>3</sup>
2	35	8-3 Cu/8-3 Al	10kA	THQC2135WL <sup>3</sup>	22kA	THHQC2135WL <sup>3</sup>
2	40	8-3 Cu/8-3 Al	10kA	THQC2140WL <sup>3</sup>	22kA	THHQC2140WL <sup>3</sup>
2	45	8-3 Cu/8-3 Al	10kA	THQC2145WL <sup>3</sup>	22kA	THHQC2145WL <sup>3</sup>
2	50	8-3 Cu/8-3 Al	10kA	THQC2150WL <sup>3</sup>	22kA	THHQC2150WL <sup>3</sup>
2	60	8-3 Cu/8-3 Al	10kA	THQC2160WL <sup>3</sup>	22kA	THHQC2160WL <sup>3</sup>
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQC2170WL	22kA	THHQC2170WL
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQC2180WL	22kA	THHQC2180WL
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQC2190WL	22kA	THHQC2190WL
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQC21100WL	22kA	THHQC21100WL

### TQC, THQC, THHQC 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Interrupting Rating	Product Number <sup>2</sup>	240 Vac Interrupting Rating	Product Number <sup>2</sup>
2	10	14-4 Cu/12-2 Al	5kA	TQC22010WL	–	–
2	15	14-8 Cu/12-8 Al	10kA	THQC22015WL	22kA	THHQC22015WL
2	20	14-8 Cu/12-8 Al	10kA	THQC22020WL	22kA	THHQC22020WL
2	25	14-8 Cu/12-8 Al	10kA	THQC22025WL	22kA	THHQC22025WL
2	30	14-8 Cu/12-8 Al	10kA	THQC22030WL	22kA	THHQC22030WL
2	35	8-3 Cu/8-3 Al	10kA	THQC22035WL	22kA	THHQC22035WL
2	40	8-3 Cu/8-3 Al	10kA	THQC22040WL	22kA	THHQC22040WL
2	45	8-3 Cu/8-3 Al	10kA	THQC22045WL	22kA	THHQC22045WL
2	50	8-3 Cu/8-3 Al	10kA	THQC22050WL	22kA	THHQC22050WL
2	60	8-3 Cu/8-3 Al	10kA	THQC22060WL	22kA	THHQC22060WL
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQC22070WL	22kA	THHQC22070WL
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQC22080WL	22kA	THHQC22080WL
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQC22090WL	22kA	THHQC22090WL
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQC22100WL	22kA	THHQC22100WL
3	10	14-4 Cu/12-2 Al	5kA	TQC32010WL	–	–
3	15	14-8 Cu/12-8 Al	10kA	THQC32015WL	22kA	THHQC32015WL
3	20	14-8 Cu/12-8 Al	10kA	THQC32020WL	22kA	THHQC32020WL
3	25	14-8 Cu/12-8 Al	10kA	THQC32025WL	22kA	THHQC32025WL
3	30	14-8 Cu/12-8 Al	10kA	THQC32030WL	22kA	THHQC32030WL
3	35	8-3 Cu/8-3 Al	10kA	THQC32035WL	22kA	THHQC32035WL
3	40	8-3 Cu/8-3 Al	10kA	THQC32040WL	22kA	THHQC32040WL
3	45	8-3 Cu/8-3 Al	10kA	THQC32045WL	22kA	THHQC32045WL
3	50	8-3 Cu/8-3 Al	10kA	THQC32050WL	22kA	THHQC32050WL
3	60	8-3 Cu/8-3 Al	10kA	THQC32060WL	22kA	THHQC32060WL
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQC32070WL	22kA	THHQC32070WL
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQC32080WL	22kA	THHQC32080WL
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQC32090WL	22kA	THHQC32090WL
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQC32100WL	22kA	THHQC32100WL

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>Use additional suffix "BP" (THQC32020WLBP) for bulk pack of 48 poles. Carton weight 20 lbs. 15-60 ampere breakers only.

<sup>3</sup>Suitable for mounting on standard 35mm DIN Rail. Refer to table on page 6-43 for termination options.

<sup>4</sup>UL listed as SWD (switching duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

UL listed HACR (heating, air conditioning and refrigeration). Refer to Q-Line accessories listed on pages 6-45 to 6-46.



**Q-Line Circuit Breakers**  
 Cable-in Cable-out (lug-lug)  
 240V Class



THQC1115GFT

**THQC 120/240 Vac Ground Fault Circuit Interrupters, Self-Testing**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8Cu/12-8 Al	10kA	THQC1115GFT
1	20	14-8Cu/12-8 Al	10kA	THQC1120GFT
1	25	14-8 Cu/12-8 Al	10kA	THQC1125GFT
1	30	14-8Cu/12-8 Al	10kA	THQC1130GFT
2	15	14-8 Cu/12-8 Al	10kA	THQC2115GFT
2	20	14-8 Cu/12-8 Al	10kA	THQC2120GFT
2	25	14-8 Cu/12-8 Al	10kA	THQC2125GFT
2	30	14-8 Cu/12-8 Al	10kA	THQC2130GFT

**THHQC 120 Vac, Ground Fault Circuit Interrupters, Self-Testing**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	22kA	THHQC2115GFT
2	20	14-8 Cu/12-8 Al	22kA	THHQC2120GFT
2	25	14-8 Cu/12-8 Al	22kA	THHQC2125GFT
2	30	14-8 Cu/12-8 Al	22kA	THHQC2130GFT

**THQC, THHQC 120 Vac, Ground Fault Circuit Interrupters, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
1	15	14-8Cu/12-8Al	10kA	THQC1115GFEP
1	20	14-8Cu/12-8Al	10kA	THQC1120GFEP
1	30	14-8Cu/12-8Al	10kA	THQC1130GFEP
1	15	14-8Cu/12-8Al	22kA	THHQC1115GFEP
1	20	14-8Cu/12-8Al	22kA	THHQC1120GFEP
1	30	14-8Cu/12-8Al	22kA	THHQC1130GFEP

**THQC, THHQC 120 Vac, Ground Fault Circuit Interrupters, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120 Vac Interrupting Rating	Product Number
2	15	14-8Cu/12-8Al	10kA	THQC2115GFEP
2	20	14-8Cu/12-8Al	10kA	THQC2120GFEP
2	30	14-8Cu/12-8Al	10kA	THQC2130GFEP
2	15	14-8Cu/12-8Al	22kA	THHQC2115GFEP
2	20	14-8Cu/12-8Al	22kA	THHQC2120GFEP
2	30	14-8Cu/12-8Al	22kA	THHQC2130GFEP

**TXQC 120/240 Vac**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
1	15	14-8 Cu/12-8 Al	65kA	TXQC1115WL
1	20	14-8 Cu/12-8 Al	65kA	TXQC1120WL
1	25	14-8 Cu/12-8 Al	65kA	TXQC1125WL
1	30	14-8 Cu/12-8 Al	65kA	TXQC1130WL

**TXQC 120/240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
2	15	14-8 Cu/12-8 Al	65kA	TXQC2115WL
2	20	14-8 Cu/12-8 Al	65kA	TXQC2120WL
2	25	14-8 Cu/12-8 Al	65kA	TXQC2125WL
2	30	14-8 Cu/12-8 Al	65kA	TXQC2130WL

**TXQC 240 Vac, Internal Common Trip**

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Interrupting Rating	Product Number
3	15	14-8 Cu/12-8 Al	65kA	TXQC32015WL
3	20	14-8 Cu/12-8 Al	65kA	TXQC32020WL
3	25	14-8 Cu/12-8 Al	65kA	TXQC32025WL
3	30	14-8 Cu/12-8 Al	65kA	TXQC32030WL

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>Requires mounting plate. See page 6-45.

UL listed HACR (heating, air conditioning and refrigeration).

Use Q-Line mounting accessories listed on pages 6-45 to 6-46.

## Q-Line Circuit Breakers

Cable-in Cable-out (lug-lug)

240V Class



TJD432400WL

### TQD 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	240 Vac Interrupting Rating	Product Number <sup>1,2</sup>
2	100	10kA	TQD22100WL
2	125	10kA	TQD22125WL
2	150	10kA	TQD22150WL
2	175	10kA	TQD22175WL
2	200	10kA	TQD22200WL
2	225	10kA	TQD22225WL
3	100	10kA	TQD32100WL
3	125	10kA	TQD32125WL
3	150	10kA	TQD32150WL
3	175	10kA	TQD32175WL
3	200	10kA	TQD32200WL
3	225	10kA	TQD32225WL

### TQD 240 Vac, Internal Common Trip with Factory Installed 120 Vac Shunt Trip

# of Poles	Ampere Rating	240 Vac Interrupting Rating	Product Number <sup>1,2</sup>
3	125	10kA	TQD32125ST1
3	150	10kA	TQD32150ST1
3	175	10kA	TQD32175ST1
3	200	10kA	TQD32200ST1
3	225	10kA	TQD32225ST1

### THQD 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	240 Vac Interrupting Rating	Product Number <sup>1,2</sup>
2	100	22kA	THQD22100WL
2	125	22kA	THQD22125WL
2	150	22kA	THQD22150WL
2	175	22kA	THQD22175WL
2	200	22kA	THQD22200WL
2	225	22kA	THQD22225WL
3	100	22kA	THQD32100WL
3	125	22kA	THQD32125WL
3	150	22kA	THQD32150WL
3	175	22kA	THQD32175WL
3	200	22kA	THQD32200WL
3	225	22kA	THQD32225WL

### TJD 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	240 Vac Interrupting Rating	Product Number <sup>1,2</sup>
2	250	22kA	TJD422250WL
2	300	22kA	TJD422300WL
2	350	22kA	TJD422350WL
2	400	22kA	TJD422400WL
2	400 Molded Case Switch	22kA	TJD422Y400
3	250	22kA	TJD432250WL <sup>3</sup>
3	300	22kA	TJD432300WL <sup>3</sup>
3	350	22kA	TJD432350WL <sup>3</sup>
3	400	22kA	TJD432400WL <sup>3</sup>
3	400 Molded Case Switch	22kA	TJD432Y400 <sup>4</sup>

<sup>1</sup>Refer to table on page 6-5 for lug and wire range data.

<sup>2</sup>Includes line and load lugs. For optional configurations see page 6-5.

<sup>3</sup>TJD uses same accessories as J600 line. TJD not listed HACR.

UL listed HACR (heating, air conditioning and refrigeration).

## Q-Line Circuit Breakers

DIN-Rail Mount  
240V Class

### Product Features

Multi-terminal Configuration Breakers

- 35 mm DIN rail mounting
- Optional front/rear panel mounting kits–THQCFMK, page 6-45.
- Optional load end terminal for up to (4) 0.25-inch quick connects.

Contact local ABB sales office for ring terminal configurations–not DIN rail compatible.

### THQC, THHQC 120/240 Vac

# of Poles	Ampere Rating	120/240 Vac Interrupting Rating	Product Number No Lugs	Product Number Line TQAL3A and Load THQECC	Product Number Line TQAL3A, Load N/A
1	15	10kA	THQC1115LL <sup>1</sup>	THQC1115CC <sup>1</sup>	THQC1115X2 <sup>1</sup>
1	20	10kA	THQC1120LL <sup>1</sup>	THQC1120CC <sup>1</sup>	THQC1120X2 <sup>1</sup>
1	25	10kA	THQC1125LL	THQC1125CC	THQC1125X2
1	30	10kA	THQC1130LL	THQC1130CC	THQC1130X2
1	35	10kA	THQC1135LL	THQC1135CC	THQC1135X2
1	40	10kA	THQC1140LL	THQC1140CC	THQC1140X2
1	45	10kA	THQC1145LL	THQC1145CC	THQC1145X2
1	50	10kA	THQC1150LL	THQC1150CC	THQC1150X2
1	60	10kA	THQC1160LL	THQC1160CC	THQC1160X2
1	15	22kA	THHQC1115LL	THHQC1115CC	THHQC1115X2
1	20	22kA	THHQC1120LL	THHQC1120CC	THHQC1120X2
1	25	22kA	THHQC1125LL	THHQC1125CC	THHQC1125X2
1	30	22kA	THHQC1130LL	THHQC1130CC	THHQC1130X2
1	35	22kA	THHQC1135LL	THHQC1135CC	THHQC1135X2
1	40	22kA	THHQC1140LL	THHQC1140CC	THHQC1140X2
1	45	22kA	THHQC1145LL	THHQC1145CC	THHQC1145X2
1	50	22kA	THHQC1150LL	THHQC1150CC	THHQC1150X2
1	60	22kA	THHQC1160LL	THHQC1160CC	THHQC1160X2

15-60A UL Listed HACR (heating, air conditioning and refrigeration)

### THQC, THHQC 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	120/240 Vac Interrupting Rating	Product Number No Lugs	Product Number Line TQAL3A and Load THQECC	Product Number Line TQAL3A, Load N/A
2	15	10kA	THQC2115LL <sup>1</sup>	THQC2115CC <sup>1</sup>	THQC2115X2 <sup>1</sup>
2	20	10kA	THQC2120LL <sup>1</sup>	THQC2120CC <sup>1</sup>	THQC2120X2 <sup>1</sup>
2	25	10kA	THQC2125LL	THQC2125CC	THQC2125X2
2	30	10kA	THQC2130LL	THQC2130CC	THQC2130X2
2	35	10kA	THQC2135LL	THQC2135CC	THQC2135X2
2	40	10kA	THQC2140LL	THQC2140CC	THQC2140X2
2	45	10kA	THQC2145LL	THQC2145CC	THQC2145X2
2	50	10kA	THQC2150LL	THQC2150CC	THQC2150X2
2	60	10kA	THQC2160LL	THQC2160CC	THQC2160X2
2	15	22kA	THHQC2115LL	THHQC2115CC	THHQC2115X2
2	20	22kA	THHQC2120LL	THHQC2120CC	THHQC2120X2
2	25	22kA	THHQC2125LL	THHQC2125CC	THHQC2125X2
2	30	22kA	THHQC2130LL	THHQC2130CC	THHQC2130X2
2	35	22kA	THHQC2135LL	THHQC2135CC	THHQC2135X2
2	40	22kA	THHQC2140LL	THHQC2140CC	THHQC2140X2
2	45	22kA	THHQC2145LL	THHQC2145CC	THHQC2145X2
2	50	22kA	THHQC2150LL	THHQC2150CC	THHQC2150X2
2	60	22kA	THHQC2160LL	THHQC2160CC	THHQC2160X2

15-60A UL Listed HACR (heating, air conditioning and refrigeration)

### Terminal Configuration

Suffix <sup>2</sup>	Line Terminal	Load Terminal
WL	TQAL3A	THQEL3
X2	TQAL3A	N/A
LL	N/A	N/A
CC	TQAL3A	THQECC
None	N/A	THQEL3

### Terminal Configuration

Type	Wire Range	Product Number
Lug–Line only	14-6 Cu/12-2 Al	TQAL3A
Lug–Load only	14-2 Cu/12-2 Al	THQEL3
Quick Connector–Load only	(4) 14 Cu or (4) 12 Al	THQECC

<sup>1</sup>15 and 20 ampere breakers UL listed as SWD (Switching Duty) rated. Suitable for switching 120 Vac fluorescent lighting loads.

<sup>2</sup>Use additional suffix “BP” (THQC1120CCBP) for bulk pack of 48 poles. Must be ordered in multiples of 48 poles.

Additional Q-Line mounting accessories listed on pages 6-45 to 6-46.

## Q-Line Circuit Breakers

### Molded Case Switches

#### 240V Class

Note: Molded case switches may be used as main devices in panelboards and switchboards but cannot be used as subfeeds or branch breakers because they do not provide wire protection. Q-Line and TEB molded case switches have a 10,000 ampere symmetrical short circuit withstand rating when protected by a fuse or circuit breaker rated 10,000 amperes IC or greater and whose ampere rating does not exceed the ampere rating of the switch.

#### Plug-in TQL 120/240, Vac Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQL21Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQL21Y100

#### Plug-in TQL 240, Vac Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQL22Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQL22Y100
3	60	8-3 Cu/8-3 Al	10kA	TQL32Y60
3	100	6-1/0 Cu/4-1/0 Al	10kA	TQL32Y100

#### Bolt-on TQB 120/240, Vac Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQB21Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQB21Y100

#### Bolt-on TQB 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQB22Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQB22Y100
3	60	8-3 Cu/8-3 Al	10kA	TQB32Y60
3	100	6-1/0 Cu/4-1/0 Al	10kA	TQB32Y100

#### Cable In-Cable Out (Lug-Lug) TQC 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	120/240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQC21Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQC21Y100

#### Cable In-Cable Out (Lug-Lug) TQC 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range <sup>1</sup>	240 Vac Short Circuit Withstand Rating	Product Number
2	60	8-3 Cu/8-3 Al	10kA	TQC22Y60
2	100	6-1/0 Cu/4-1/0 Al	10kA	TQC22Y100
3	60	8-3 Cu/8-3 Al	10kA	TQB32Y60
3	100	6-1/0 Cu/4-1/0 Al	10kA	TQB32Y100

#### Cable In-Cable Out (Lug-Lug) TQD, TJD 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	240 Vac Short Circuit Withstand Rating	Product Number
2	225	14kA	TQD22Y225
3	225	14kA	TQD32Y225 <sup>2</sup>
2	400	22kA	TJD422Y400
3	400	22kA	TJD432Y400 <sup>3</sup>

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>TQD32Y225 with dummy trip used for accessorized applications.



<sup>3</sup>TJD uses same accessories as J600 line.

<sup>4</sup>Refer to table on page 6-5 for data. Line and load lugs included in basic switch product number.

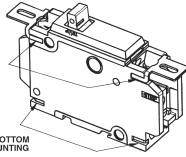
## Q-Line Circuit Breakers

Accessories  
240V Class

### Terminals (Lugs) for Q-Line Circuit Breakers

	Ampere Rating	Termination Type	Wire Range (Cu/Al)	Product Number
 Quick Connector THQECC	15-60	Lug (line only)	14-6/12-2	TQAL3A
 Load Lug THQEL3	15-60	Lug (load only)	14-2/12-2	THQEL3
	15-60	Quick connector (load only)	(4) 14/(4) 12	THQECC

### Mounting Accessories for THQB, THQC

	Product Type	Ampere Rating	# of Poles	Used With Frame	Product Number
 MOUNTING KIT CATALOG NUMBER THQCFMK  OPTIONAL BOTTOM MOUNTING  MOUNTING KIT Mounting Kit THQCFMK	Bolt-on Mounting Base	-	3	THQB/TEY	TEY3B
	Back Mounting Plates Screw Type	-	1	THQC	TQCBMPA1
	Back Mounting Plates Screw Type	-	2	THQC	TQCBMPA2
	Back Mounting Plates Screw Type	-	3	THQC	TQCBMPA3
	Back Mounting Plates Screw Type	-	10	THQC	TQCBMPA10
	Front-mounting Plates	-	1	THQC	TQCFMP1 <sup>1</sup>
	Front-mounting Plates	-	2	THQC	TQCFMP2 <sup>1</sup>
	Front-mounting Plates	-	3	THQC	TQCFMP3 <sup>1</sup>
	Front-mounting Plates	-	4	THQC	TQCFMP4 <sup>1</sup>
	Pack of 48 Front/Rear Mounting Clips	15-60A	1 & 2-pole	THQC	THQCFMK
	Pack of 24 DIN rail clips	-	-	THQC	THQCIN

### Mounting Accessories for THQC, THQC-GF, GFEP

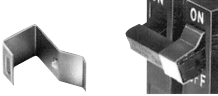



	Product Type	# of Poles	Used With Frame	Product Number
	Snap In Back Mounting Plates	1	THQC, THQC-GF	TQCGFBMPA1
	Snap In Back Mounting Plates	2	THQC, THQC-GF	TQCGFBMPA2
	Snap In Back Mounting Plates	3	THQC, THQC-GF	TQCGFBMPA3
	Snap In Back Mounting Plates	10	THQC, THQC-GF	TQCGFBMPA10

### Mounting Accessories for TQL

	Product Type	Ampere Rating	# of Poles	Used With Frame	Product Number
	Plug-in Mounting Base	70	2	TQL	571B595DDG1
	Plug-in Mounting Base	70	3	TQL	571B595DDG2
	Plug-in Mounting Base	100	3	TQL	565B837G1
	Plug-in Mounting Base	100	2	TQL	565B837G2

## Q-Line Circuit Breakers Accessories

### Handle Locking Devices & Handle Ties

	Description	Breaker Type	Product Number
 THL103	Handle Locks - Non Padlocking	TQB TQC TQL	THL103 <sup>5</sup>
	Handle Locks - Padlocking	TQB... GF TQC... GF TQL... GF	THQGFPLD1 <sup>2,4</sup>
 THP100	Handle Locks - Non Padlocking	THQP TQB... GF TQC... GF TQL... GF	TQPL
	Handle Locks - Padlocking	TQD	TQDPLD1 <sup>2</sup>
	Handle Locks - Padlocking	TQD	TQPDL2 <sup>1</sup>
	Handle Locks - Padlocking	TQB TQL	THP100
	Handle Locks - Padlocking	THQP	TQPPL
	Handle Locks - Padlocking	TQC	TQPLD1 <sup>2</sup>
 THT104	Snap-on Handle Tie - Trip Indicating	TQB TQC TQL	TQHT1 <sup>6</sup>
 TQHT1	Snap-on Handle Tie - Solid	TQB TQC TQL	THT104 <sup>6</sup>
	Multiwire Branch Breaker Handle Tie Kits	TQB TQC TQL	TQ3HTK <sup>7</sup> TQ4HTK <sup>8</sup>

All multi-pole breakers have internal common trip

Handle ties provide manual on-off capability only between one-pole devices

### Breaker Mounting Screw Kit

	Product Type	Used With Frame	Product Number
	Breaker Mounting Screw Kit	THQB	TQBS1 <sup>3</sup>

<sup>1</sup>EUSERC Approved—Factory Installed Only.

<sup>2</sup>Suitable for circuit breakers used in group mounted panelboard construction only.

<sup>3</sup>Price is per screw. Packaged in quantities of 24. Must be ordered in multiples of 24.

<sup>4</sup>Suitable for use on single pole GF Breakers only.

<sup>5</sup>Kit includes (1) lock for 1-pole breaker and (1) lock for 2-pole breaker

<sup>6</sup>For two single-pole breakers

<sup>7</sup>For three single-pole breakers - kit includes (10) pcs.

<sup>8</sup>For four single-pole breakers - kit includes (10) pcs.

## Formula A

### Ordering code construction

A					W	
<b>Frame size</b> 1 = 100 A, UL 2 = 250 A, UL A = 125 A, IEC B = 250 A, IEC C = 400 A, IEC D = 630 A, IEC				<b>Number of poles</b> -1 = 1-pole (UL) <sup>1</sup> -2 = 2-pole (UL and IEC) <b>None</b> 3-pole (UL and IEC) -4 = 4-pole (IEC) <small><sup>1</sup>A1 1-pole UL only; A2 1-pole is not available.</small>		
<b>Interrupting rating class</b> A = Adequate (UL and IEC) B = Basic (IEC) C = Common (IEC) N = Normal (UL and IEC) S = Standard (IEC)				<b>Type connectors</b> W = None		
<b>Current rating</b> 015 = 15 A (UL and IEC)      100 = 100 A (UL and IEC) 016 = 16 A (IEC)              125 = 125 A (UL and IEC) 020 = 20 A (UL and IEC)      150 = 150 A (UL and IEC) 025 = 25 A (UL and IEC)      160 = 160 A (UL and IEC) 030 = 30 A (UL and IEC)      175 = 175 A (UL and IEC) 032 = 32 A (IEC)                200 = 200 A (UL and IEC) 040 = 40 A (UL and IEC)      225 = 225 A (UL and IEC) 050 = 50 A (UL and IEC)      250 = 250 A (UL and IEC) 060 = 60 A (UL and IEC)      320 = 320 A (IEC) 063 = 63 A (IEC)                400 = 400 A (IEC) 070 = 70 A (UL and IEC)      500 = 500 A (IEC) 080 = 80 A (UL and IEC)      630 = 630 A (IEC) 090 = 90 A (UL and IEC)				<b>Trip unit function</b> T = Thermal-magnetic (UL and IEC) A = ELT — LI (IEC)		

## Formula A Circuit breakers for power distribution

### A1 ordering information



**A1 100 A — Fixed (F) 1-pole — Front terminals (F), thermal-magnetic trip unit — TMF Icu (240 V)**

In	I3	A (10 kA)	N (18 kA)
15	400	A1A015TW-1	A1N015TW-1
20	400	A1A020TW-1	A1N020TW-1
25	400	A1A025TW-1	A1N025TW-1
30	400	A1A030TW-1	A1N030TW-1
40	400	A1A040TW-1	A1N040TW-1
50	500	A1A050TW-1	A1N050TW-1
60	600	A1A060TW-1	A1N060TW-1
70	700	A1A070TW-1	A1N070TW-1
80	800	A1A080TW-1	A1N080TW-1
90	900	A1A090TW-1	A1N090TW-1
100	1000	A1A100TW-1	A1N100TW-1



**A1 100 A — Fixed (F) 2-pole — Front terminals (F), thermal-magnetic trip unit — TMF Icu (240 V)**

In	I3	A (10 kA)	N (25 kA)
15	400	A1A015TW-2	A1N015TW-2
20	400	A1A020TW-2	A1N020TW-2
25	400	A1A025TW-2	A1N025TW-2
30	400	A1A030TW-2	A1N030TW-2
40	400	A1A040TW-2	A1N040TW-2
50	500	A1A050TW-2	A1N050TW-2
60	600	A1A060TW-2	A1N060TW-2
70	700	A1A070TW-2	A1N070TW-2
80	800	A1A080TW-2	A1N080TW-2
90	900	A1A090TW-2	A1N090TW-2
100	1000	A1A100TW-2	A1N100TW-2



**A1 100 A — Fixed (F) 3-pole — Front terminals (F), thermal-magnetic trip unit — TMF Icu (240 V)**

In	I3	A (10 kA)	N (25 kA)
15	300	A1A015TW	A1N015TW
20	300	A1A020TW	A1N020TW
25	300	A1A025TW	A1N025TW
30	300	A1A030TW	A1N030TW
40	400	A1A040TW	A1N040TW
50	500	A1A050TW	A1N050TW
60	600	A1A060TW	A1N060TW
70	700	A1A070TW	A1N070TW
80	800	A1A080TW	A1N080TW
90	900	A1A090TW	A1N090TW
100	1000	A1A100TW	A1N100TW



**Formula A Circuit breakers for power distribution**

A2 ordering information



**A2 250 A — Fixed (F) 2-pole — Front terminals (F), thermal-magnetic trip unit — TMF Icu (240 V)**

In	I <sub>3</sub>	A (10 kA)	N (25 kA)
125	1250	A2A125TW-2	A2N125TW-2
150	1500	A2A150TW-2	A2N150TW-2
175	1750	A2A175TW-2	A2N175TW-2
200	2000	A2A200TW-2	A2N200TW-2
225	2250	A2A225TW-2	A2N225TW-2
250	2500	A2A250TW-2	A2N250TW-2



**A2 250 A — Fixed (F) 3-pole — Front terminals (F), thermal-magnetic trip unit — TMF Icu (240 V)**

In	I <sub>3</sub>	A (10 kA)	N (25 kA)
125	1250	A2A125TW	A2N125TW
150	1500	A2A150TW	A2N150TW
175	1750	A2A175TW	A2N175TW
200	2000	A2A200TW	A2N200TW
225	2250	A2A225TW	A2N225TW
250	2500	A2A250TW	A2N250TW

## Formula A Accessories

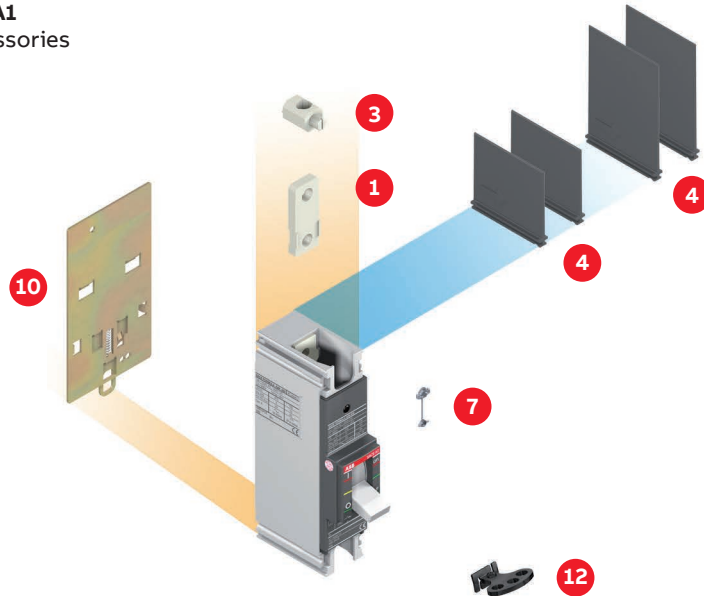
### Panorama of accessories

#### Caption

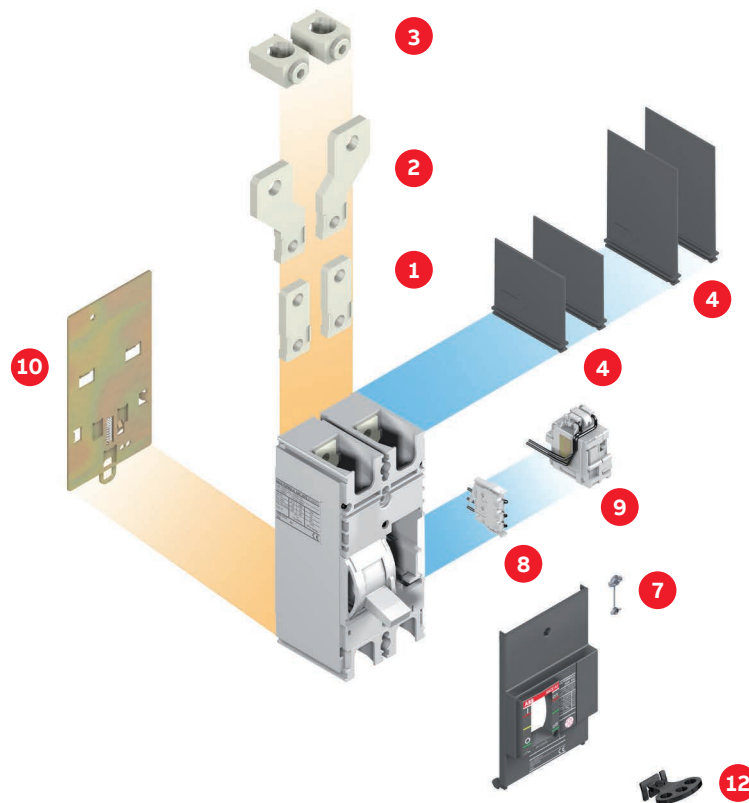
- 1** EF: extended front terminals <sup>1</sup>
- 2** ES: extended spread terminals <sup>1</sup>
- 3** FC CuAl: front terminals for copper and aluminum cables
- 4** PS: phase separators
- 5** HTC: high terminal cover
- 6** LTC: low terminal cover
- 7** Sealable screw <sup>1</sup>
- 8** AUX-C/AUE-C: auxiliary contact
- 9** SOR-C/UVR-C: service releases
- 10** DIN: DIN rail <sup>1</sup>
- 12** PLL: padlocks
- 14** RHD: rotary handle direct
- 15** RHE: extended rotary handle
- 16** Key lock <sup>1</sup>

<sup>1</sup> IEC rated only.  
Not UL rated.

#### FORMULA A1 1-pole accessories



#### FORMULA A1-A2 2-pole accessories



All FORMULA accessories are sold separately to be field installed.

## Formula A Accessories

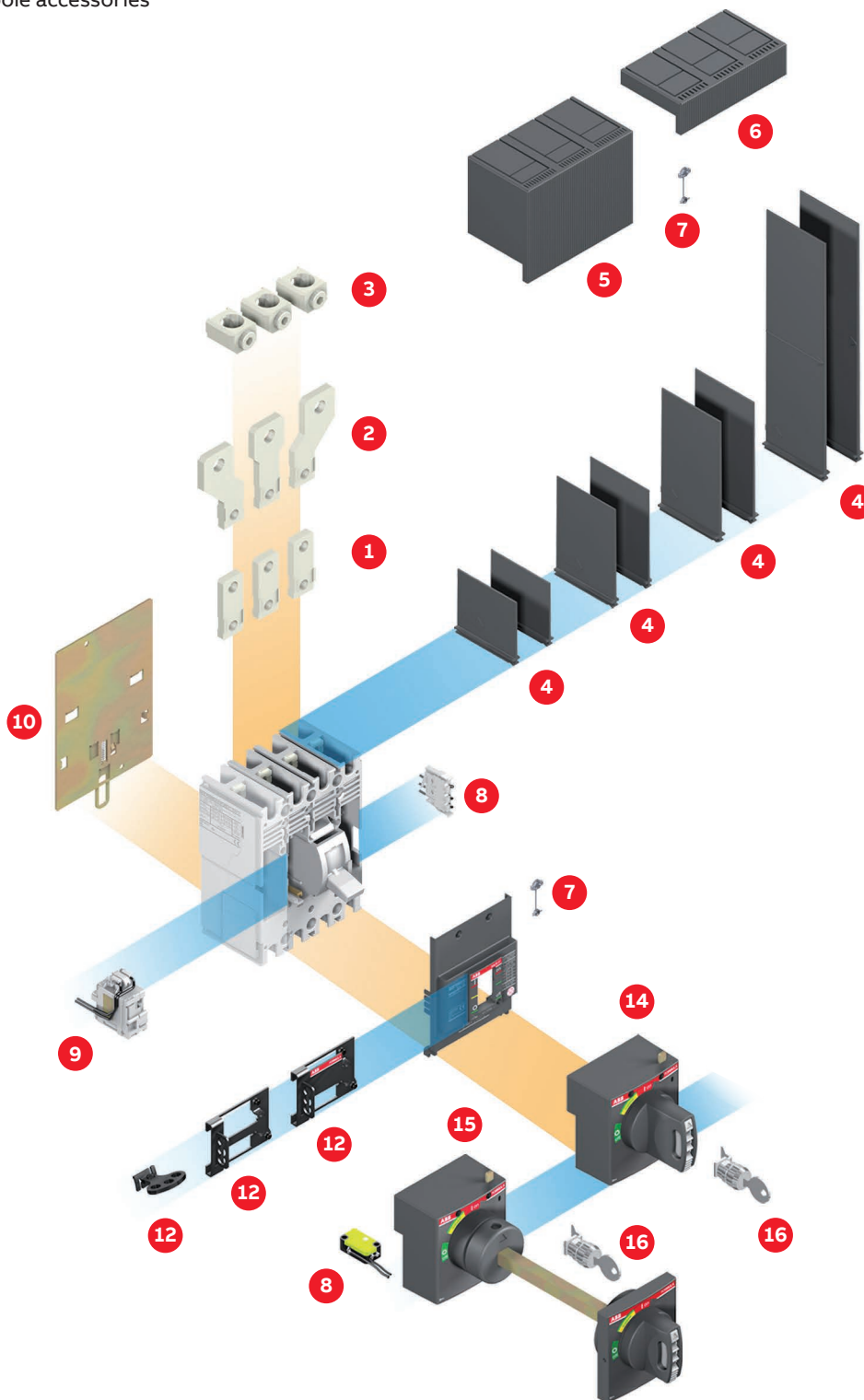
### Panorama of the accessories

Caption

#### FORMULA A1-A2 3-pole accessories

- 1** EF: extended front terminals <sup>1</sup>
- 2** ES: extended spread terminals <sup>1</sup>
- 3** FC CuAl: front terminals for copper and aluminum cables
- 4** PS: phase separators
- 5** HTC: high terminal cover
- 6** LTC: low terminal cover
- 7** Sealable screw <sup>1</sup>
- 8** AUX-C/AUE-C: auxiliary contact
- 9** SOR-C/UVR-C: service releases
- 10** DIN: DIN rail <sup>1</sup>
- 12** PLL: padlocks
- 14** RHD: rotary handle direct
- 15** RHE: extended rotary handle
- 16** Key lock <sup>1</sup>

<sup>1</sup> IEC rated only.  
Not UL rated.



All FORMULA accessories are sold separately to be field installed.

## Formula A Accessories

### Mechanical accessories

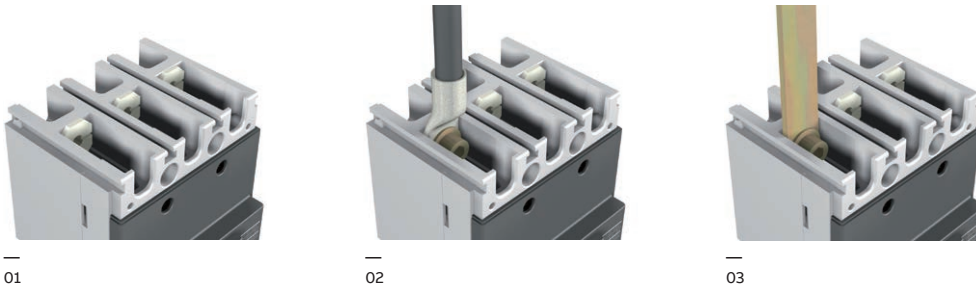
- 01 Terminal F
- 02 Terminal F with cable lug
- 03 Terminal F with busbar
- 04 Terminal EF
- 05 Terminal EF with busbar

#### Connection terminals

The connection terminals allow the circuit breaker to be connected in the most suitable way for the desired application. Various termination options are available in both UL and IEC rated formats.

The front terminals allow cables or busbars to be connected directly from the front of the circuit breaker (cable lugs are not included). Different types of terminals can be combined (for example, one type for the line and a different type for the load side).

The standard version of the circuit breaker is supplied with front terminals (F). Alternative terminal options are sold separately.



#### Front terminals — F

Type	Pole	Busbar dimensions (mm/in.)				Cable lug (mm/in.)		Tightening torques				Terminal covers (mm/in.)				Separators (mm/in.)			
		W	H	D	∅	W	∅	Terminal	Cable or busbar	2/0.07	7.5/0.29	50/1.96	60/2.36	50/1.96	80/3.14	100/3.93	200/7.87		
A1	1 2 3	15/0.59	6/0.23	5/0.19	6.5/0.25	15/0.59	6.5/0.25	–	–	M6	4	–	–	R	–	S <sup>1</sup>	–	R	–
A2	2 3	25/0.98	8/0.31	6/0.23	8.5/0.33	24/0.94	8.5/0.33	–	–	M8	8	–	–	–	R	–	S <sup>1</sup>	R	–

<sup>1</sup>Separators are supplied on line side

#### Front terminals

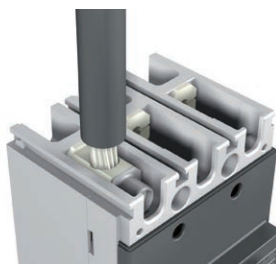
	1 piece	2 pieces	3 pieces	4 pieces	6 pieces
KIT F A1	KA1F-1	KA1F-2	KA1F-3	KA1F-4	KA1F-6
KIT F A2	–	KA2F-2	KA2F-3	KA2F-4	KA2F-6

## Formula A Accessories

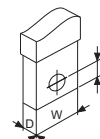
### Mechanical accessories



04



05



- NA = Not available
- W = Width
- H = Hole height
- D = Depth
- ø = Diameter
- S = Standard
- R = On request

#### Front terminals for copper aluminum cables — FC CuAl

Type	Assembly	Pole	Cable (mm/in.)	Tightening torques				Length of Cable stripping (mm/in.)	Terminal covers (mm/in.)				Separators (mm/in.)			
				Rigid	Terminal	Cable or busbar			2/0.07	7.5/0.29	50/1.96	60/2.36	50/1.96	80/3.14	100/3.93	200/7.87
A1	Internal	1 <sup>1</sup> 2 <sup>1</sup> 3	14–2 AWG	M6	35 lb-in	–	14–10 AWG; 20 lb-in 8 AWG; 35 lb-in 6–2 AWG; 75 lb-in	16/0.62	–	S <sup>1</sup>	R	–	–	–	–	–
A1	Internal	1 <sup>1</sup> 2 <sup>1</sup> 3	4–1 AWG	M6	35 lb-in	–	75 lb-in	16/0.62	–	S <sup>1</sup>	R	–	–	–	–	–
A2	Internal	2 3	1 AWG–300 kcmil	M8	135 lb-in	–	135 lb-in	20/0.78	–	S <sup>1</sup>	–	R	–	–	–	–
A2	Internal	2 3	300–350 kcmil	M8	135 lb-in	–	177 lb-in	22/0.86	–	S <sup>1</sup>	–	R	–	–	–	–

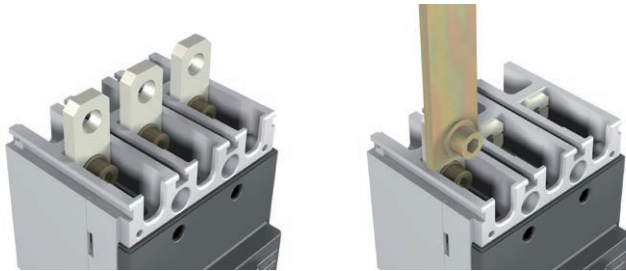
<sup>1</sup>Terminal covers are not supplied for 1p and 2p. The use of phase separators, supplied with the standard circuit breaker, and the insulating of switchboard door are mandatory.

#### Front terminals for copper aluminum cables — FC CuAl

	1 piece	2 pieces	3 pieces	4 pieces	6 pieces
KIT FC CuAl A1 80 A	KA1080-1	KA1080-2	KA1080-3	KA1080-4	KA1080-6
KIT FC CuAl A1 100 A	KA1100-1	KA1100-2	KA1100-3	KA1100-4	KA1100-6
KIT FC CuAl A2; 250 A Cu cables and 225A Al cables	–	KA2225-2	KA2225-3	KA2225-4	KA2225-6
KIT FC CuAl A2 250 A	–	KA2250-2	KA2250-3	KA2250-4	KA2250-6

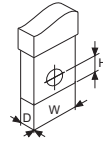
## Formula A Accessories

### Mechanical accessories



04

05



NA = Not available  
 W = Width  
 H = Hole height  
 D = Depth  
 ø = Diameter  
 S = Standard  
 R = On request

#### Front extended terminals — EF (IEC only)

Type	Pole	Busbar dimensions (mm/in.)			Cable lug (mm/in.)		Tightening torques		Terminal covers (mm/in.)				Separators (mm/in.)					
		W	D	ø	W	ø	Terminal	Cable or busbar	2/0.07	7.5/0.29	50/1.96	60/2.36	50/1.96	80/3.14	100/3.93	200/7.87		
A1	1 2 3	15/0.59	5/0.19	8.5/0.33	15/0.59	8.5/0.33	M6	3	M8	9	-	-	R	-	S	-	R	-
A2	2 3	25/0.98	6/0.23	9/0.35	NA	NA	M8	8	M8	9	-	-	-	R	-	<sup>1</sup>	R	-

<sup>1</sup>In EF terminal kit, the phase separators are not provided, but for a correct installation, it is necessary to use the phase separators already provided with the circuit breaker base.

#### Front extended terminals (IEC only)

	1 piece	2 pieces	3 pieces	4 pieces	6 pieces
KIT EF A1	KA1EF-1	KA1EF-2	KA1EF-3	KA1EF-4	KA1EF-6
KIT EF A2	-	KA2EF-2	KA2EF-3	KA2EF-4	KA2EF-6

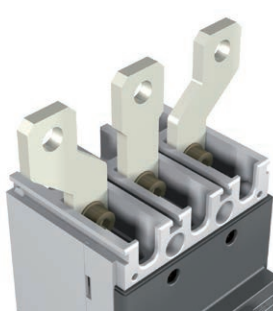
01 Terminal ES

02 Terminal ES with cable lug

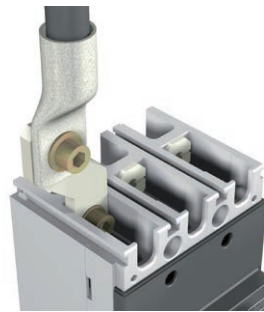
03 Terminal ES with busbar

04 Terminal FCCuAl

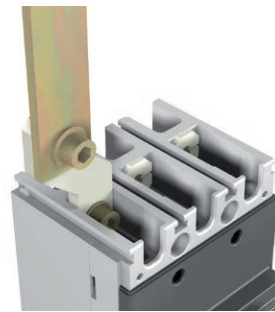
04 Terminal FCCuAl with cable



01



02



03

#### Front extended spread terminal — ES (IEC only)

Type	Pole	Busbar dimensions (mm/in.)			Cable lug (mm/in.)		Tightening torques		Terminal covers (mm/in.)				Separators (mm/in.)					
		W	D	ø	W	ø	Terminal	Cable or busbar	2/0.07	7.5/0.29	50/1.96	60/2.36	50/1.96	80/3.14	100/3.93	200/7.87		
A1	2 3	20/0.78	6/0.23	8.5/0.33	20/0.78	8.5/0.33	M6	3	M8	9	-	-	-	-	-	-	S	-
A2	2 3	30/1.18	4/0.15	10.5/0.41	10.5/0.41	NA	M8	8	M10	18	-	-	-	-	-	-	S	-

#### Front extended spread terminals (IEC only)

	1 piece	2 pieces	3 pieces	4 pieces	6 pieces
KIT ES A1	KA1ES-1	KA1ES-2	KA1ES-3	KA1ES-4	KA1ES-6
KIT ES A2	-	KA2ES-2	KA2ES-3	KA2ES-4	KA2ES-6

## Formula A Accessories

### Mechanical accessories

- 01 High terminal cover (HTC)
- 02 Low terminal cover (LTC)
- 03 Sealable screw
- 04 Phase separators (PS)



01



02



03



04

#### Terminal covers, phase separators and sealable screws

Both high (HTC) and low (LTC) terminal covers are applied to the circuit breaker to avoid accidental contact with live parts and, in this way, to ensure protection against direct contact. The terminal covers are pre-punched for knock-out on the front to facilitate installation of busbars and/or cables, providing correct insulation.

The phase separator partitions (PS) allow the insulation characteristics between phases to be increased near the connections. They are mounted on the front by inserting them into the corresponding slots and can be applied either prior to or when the circuit breaker is already installed. The phase separators are incompatible with both the high and the low terminal covers.

The lead sealing kit includes screws, which, when used, prevent removal of the terminal covers and/or circuit breaker fronts, acting as a protection

against direct contact and tampering. The screws can be locked with a wire and sealed with lead.

The compulsory and optional phase separators and terminal covers needed for correct installation and insulation of the circuit breaker are indicated in the “connection terminals” section of the accessories chapter and in the “overall dimension” chapter.

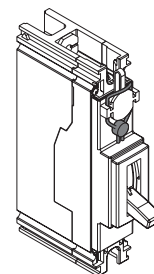
#### Terminal covers

	A1	A2
HTC 3-pole, 2 pieces	KA1HTC-3	KA2HTC-3
LTC 3-pole, 2 pieces	KA1LTC-3	KA2LTC-3
Sealable screws for terminal covers	KA2SSW-T	—
Sealable screws for front	KA2SSW-F	—

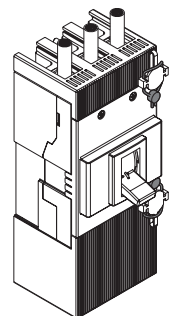
#### Phase separators

	A1		A2	
	2 pieces	4 pieces	2 pieces	4 pieces
PB 50 mm	KA1PBL-2	KA1PBL-3	—	—
PB 80 mm	—	—	KA2PBL-2	KA2PBL-3
PB 100 mm	KA2PBH-2	KA2PBH-3	KA2PBH-2	KA2PBH-3
Sealable screws for front (IEC only)	KA2SSW-F	—	—	—

#### Diagrams



Sealable screw onto the circuit breaker front



Sealable screw onto the terminal covers

## Formula A Accessories

### Mechanical accessories

- 01 Direct handle (RHD)
- 02 Extended handle (RHE)



01



02

#### Rotary handle operating mechanism

A rotary handle operating mechanism is a control device that allows the circuit breaker to be comfortably operated by means of a rotary handle.

There are two types of handles:

- Direct (RHD): installed directly on the front of the circuit breaker
- Extended (RHE): installed through the switchboard door; RHE interacts with the circuit breaker behind the door by means of a transmission rod

The rotary handles, in the direct and extended version, are available for the three-pole A1 and A2 circuit breakers both in the standard version (grey) and in the emergency version (red on a yellow background).

Information/settings visible and accessible to the user:

- Circuit breaker nameplate
- Indication of the 3 positions: open (OFF), closed (ON), tripped (TRIP)
- Access to the test pushbutton of the rotary handle release (only RHD)

Rotary handle operating mechanisms can be ordered:

- By using the pre-configured “kit” code (RHD and RHE)
- By ordering the following three devices (only RHE):
  - Rotary handle on door of the compartment: standard (RHE\_H) or emergency (RHE\_H\_EM)
  - Transmission rod of 500 mm (RHE\_S); the minimum and maximum distances between the mounting surface and the door are 62.5 mm/2.46 in. and 479.5 mm/18.88 in.
  - Base for circuit breaker (RHE\_B)

It is possible to accessorize the handles with a vast range of key locks and padlocks. Each rotary handle takes up to 3 padlocks (7 mm/0.28 in. Ø stem). (See the “locks” paragraph in the accessories chapter.)

The direct and extended rotary handles allow use of the early auxiliary contacts on closing in order to supply the undervoltage release with power early in relation to closing of the main circuit breaker contacts (see the “early auxiliary contacts” paragraph in the accessories chapter).

#### Rotary handle component

	A1-A2
RHD A1-A2 STAND. DIRECT	KA2RHD
RHD_EM A1-A2 EMER. DIRECT	KA2RHDEM
RHE A1-A2 STAND. RETURNED	KA2RHE
RHE_EM A1-A2 EMER. RETURNED	KA2RHEEM
RHE_B A1-A2 SIDEB.R.DIST.ADJ.ROT.HAND	KA2RHE-B
RHE_S A1-A2 ROD R.D.ADJ.ROT.HAN	KA2RHE-S
RHE_H A1-A2 HANDLE R.D.ADJ.ROT.HAN	KA2RHE-H
RHE_H A1-A2 HAND.EME.R.D.ADJ.ROT.HAN	KA2RHE-HEM



## Formula A Accessories

### Mechanical accessories

- 01 Fixed padlock in open position (PLL)
- 02 Fixed padlock in open and closed position (PLL)
- 03 Removable padlock in open position (PLL)



01



02



03

#### Locks

Locks are devices (with padlocks or keys) which prevent the circuit breaker closing or opening operation. They can be applied:

- Directly onto the front of the circuit breaker
- Onto the direct/extended rotary handle operating mechanism
- Onto the front for lever operating mechanisms

Locking the circuit breaker in the open position ensures isolation of the circuit according to the IEC 60947-2 Standard. Locking in closed position does not prevent release of the mechanism following a fault.

Type of lock		Circuit breaker	Polarity	Optional/standard supply	CB lock position	Type of lock	Withdraw ability of key
Circuit breaker	PLL — Fixed padlock	A1-A2	3	Optional	Open-closed	Padlocks — max. 3 padlocks Ø stem 7 mm (not supplied)	—
	PLL — Fixed padlock	A1-A2	3	Optional	Open	Padlocks — max. 3 padlocks Ø stem 7 mm (not supplied)	—
	PLL — Removable padlock	A1-A2	1 <sup>2</sup> , 2, 3	Optional	Open	Padlocks — max. 3 padlocks Ø stem 7 mm (not supplied)	—
Rotary handle direct and extended	Padlock in open position	A1-A2	3	Standard	Open	Padlocks — max. 3 padlocks Ø stem 7 mm (not supplied)	—
	Compartment door lock	A1-A2	3	Standard	Closed	Door lock <sup>1</sup>	—
	RHL-S Lock with key in open pos.	A1-A2	3	Optional	Open	Same Ronis keys	Open
	RHL-D Lock with key in open pos.	A1-A2	3	Optional	Open	Different Ronis keys	Open
	RHL-D Lock with key in open and closed position	A1-A2	3	Optional	Open-closed	Different Ronis keys	Open/closed

<sup>1</sup>Function can be completely excluded by the customer during assembly of the handle (A1 and A2).

<sup>2</sup>A2 is not available in a single-pole version.

## Formula A Accessories

### Mechanical accessories

—  
01 Circuit breaker with fixed padlock in open position

—  
02 Circuit breaker with fixed padlock in open and closed position

—  
03 Key lock for direct handle

—  
04 Key lock for extended handle



01



02



03



04

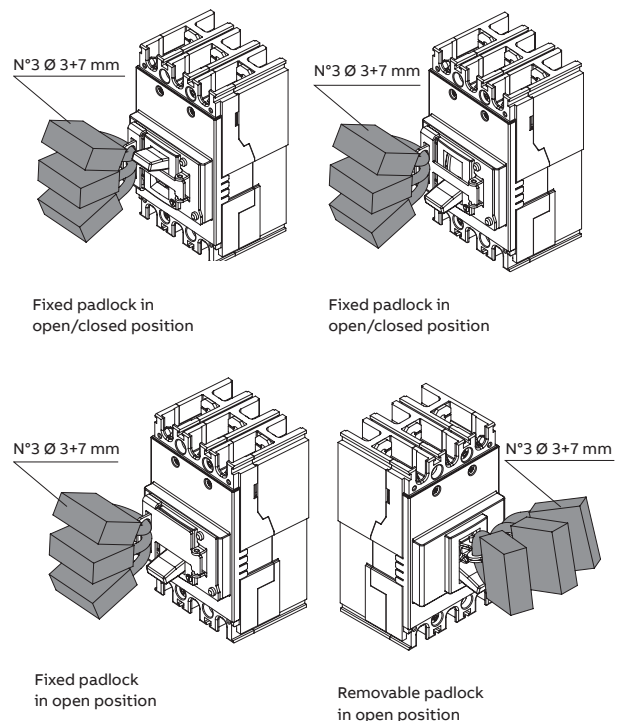
#### Padlocks for lever operating mechanism of the circuit breaker

	A1-A2
PLL — Padlocks removable in open position	KA2LDOR
PLL — Padlocks fixed in open position	KA2LDO
PLL — Padlocks fixed in open and closed position	KA2LD

#### Key lock on handle and front for lever operating mechanism (IEC only)

	A1-A2
RHL-D Lock in open position, different keys	KA2RHLO
RHL-S Lock in open position, same keys type A	KA2RHLO-A
RHL-S Lock in open position, same keys type B	KA2RHLO-B
RHL-S Lock in open position, same keys type C	KA2RHLO-C
RHL-S Lock in open position, same keys type D	KA2RHLO-D
RHL-D Lock in open/closed position, different keys	KA2RHL

#### Diagrams



## Formula A Accessories

### Mechanical accessories

—  
01 Bracket for DIN rail



#### Bracket for mounting on DIN rail

The bracket, applied on the back of the circuit breakers, allows installation on a standardized DIN EN 50022 rail so as to simplify mounting in standard installations.

The bracket for mounting on DIN rail can be used with all the circuit breakers in the FORMULA family, with the exception of A3:

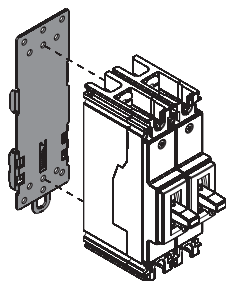
- A1 in 1p, 2p, 3p version
- A2 in 2p, 3p version

#### Bracket for mounting on DIN rail (IEC only, not labeled for UL)

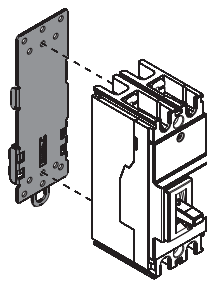
	A1-A2
Bracket for 1p, 2p, 3p	KA2DIN

—  
01

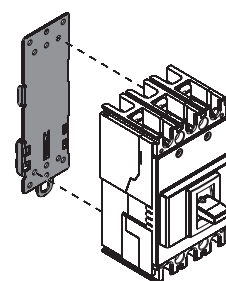
#### Diagrams



Bracket for DIN rail  
for 1p circuit breaker



Bracket for DIN rail  
for 2p circuit breaker



Bracket for DIN rail  
for 3p circuit breaker

## Formula A Accessories

### Electrical accessories

—  
01 Cabled service release  
SOR-C and UVR-C



—  
01

#### Service releases

The cabled shunt opening release SOR-C allows for opening of the circuit breaker by means of a non-permanent electrical control. Operation of the release is guaranteed for a voltage between 70% and 110% of the power supply rated voltage value  $U_n$ , in both alternating and direct current. It is fitted with an integrated limit contact for cutting off the power supply.

The cabled undervoltage release UVR-C ensures opening of the circuit breaker for lack/lowering of the release power supply voltage. Opening is guaranteed when the voltage is between 70% and 35% of  $U_n$ . After tripping, the circuit breaker can be closed again starting from a voltage higher than 85% of  $U_n$ . With the undervoltage release de-energized, it is impossible to close the circuit breaker and/or the main contacts.

The service releases SOR-C and UVR-C for Formula can be mounted as alternatives to each other and are only available in the cabled version (20AWB cable section/0.5 mm<sup>2</sup>), with 1 m long cables. For A1 and A2, screw-less, snap-on assembly is carried out in the special internal compartment of the circuit breaker. In the following circuit breakers:

- Two-pole (A1, A2), the SOR-C or UVR-C can be mounted as an alternative in the right-hand slot
- Three-pole (A1, A2), the SOR-C or UVR-C can be mounted as an alternative in the left-hand slot

#### SOR-C — Electrical characteristics

Versions	Absorbed power on inrush	
	SOR-C A1-A2	
	AC (VA)	DC (W)
12 V DC		50
24–30 V AC/DC	50–65	50–65
48–60 V AC/DC	60	60
110–127 V AC — 110–125 V DC	50	50
220–240 V AC — 220–250 V DC	50–60	50–60

#### UVR-C — Electrical characteristics

Version	Absorbed power during normal operation	
	UVR-C A1-A2	
	AC (VA)	DC (W)
24–30 V AC/DC	1.5	1.5
48 V AC/DC	1	1
60 V AC/DC	1	1
110–127 V AC — 110–125 V DC	2	2
220–240 V AC — 220–250 V DC	2.5	2.5

## Formula A Accessories

### Electrical accessories

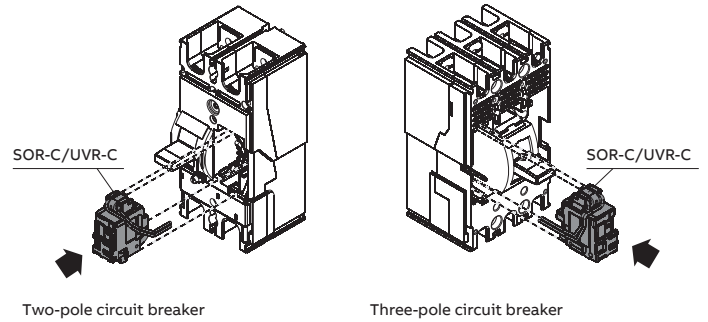
#### Shunt opening release — SOR-C

	A1-A2
SOR-C 12 V DC	KA2S9
SOR-C 24-30 V AC/DC	KA2S8
SOR-C 48-60 V AC/DC	KA2S7
SOR-C 110-127 V AC — 110-125 V DC	KA2S4
SOR-C 220-240 V AC — 220-250 V DC	KA2S2

#### Undervoltage release — UVR-C

	A1-A2
UVR-C 12 V DC	KA2U9
UVR-C 24-30 V AC/DC	KA2U8
UVR-C 48 V AC/DC	KA2U7
UVR-C 60 V AC/DC	KA2U5
UVR-C 110-127 V AC — 110-125 V DC	KA2U4
UVR-C 220-240 V AC — 220-250 V DC	KA2U2

#### Diagrams



Two-pole circuit breaker

Three-pole circuit breaker

## Formula A Accessories

### Electrical accessories

01 Cabled auxiliary contact



#### Auxiliary contacts for electrical signals

The auxiliary contacts allow information about the state of the circuit breaker to be available through an electronic signal to another apparatus.

The signals available are as follows:

- Form C (open/closed): signaling the position of the circuit breaker power contacts (Q)
- Bell alarm (release trip): signaling circuit breaker opening due to tripping of the thermal-magnetic or electronic trip unit (due to overload or short circuit), of the opening of the shunt opening release or undervoltage release (SOR-C or UVR-C) or by activation of the test pushbutton (SY)

#### Auxiliary contacts AUX-C Q, AUX-C SY

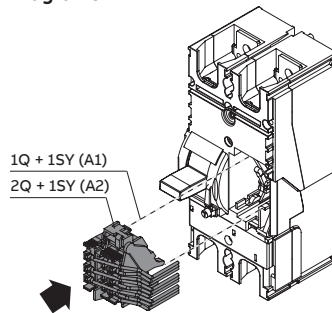
The auxiliary contacts for A1 and A2 snap into the special slot of the circuit breaker without the use of any screws. All the auxiliary contacts are supplied in the cabled version (20 AWG cable section/0.5 mm<sup>2</sup>), with loose cables 1 m long.

An AUX-C contact is also available as a spare part, and it can be used as Q or SY according to the slot of the circuit breaker in which it is inserted.

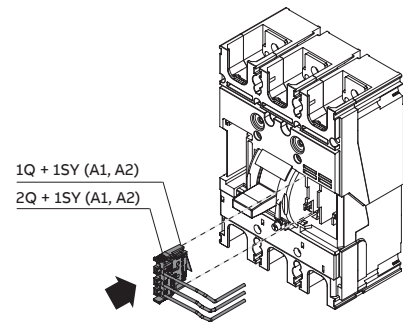
#### AUX-C — Electrical characteristics

Category of use (IEC 60947-5-1)	Voltage (V)	Current (A)
AC-12/AC-13/AC-14	125	6
AC-15	125	5
AC-12/AC-13/AC-14	250	6
AC-15	250	4
DC-12	110	0.5
DC-14	110	0.05
DC-12	250	0.3
DC-14	250	0.03

#### Diagrams



Two-pole circuit breaker



Three-pole circuit breaker

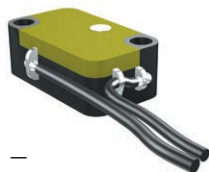
## Formula A Accessories

### Electrical accessories

01 Early auxiliary contact

#### Auxiliary contacts — AUX-C

	A1		A2	
	2-pole	3-pole	2-pole	3-pole
<b>Cabled version (numbered cables)</b>				
AUX-C 1Q+1SY 250 V AC/DC	KA2AS-2	KA2AS	–	KA2AS
AUX-C 2Q+1SY 250 V A2 2p	–	KA2AS2	KA2AS2-2	KA2AS2
AUX-C 1Q+1SY 24 V DC	KA2ASAU-2	KA2ASAU	–	KA2ASAU
AUX-C 2Q+1SY 24 V DC	–	KA2AS2AU	KA2AS2AU-2	KA2AS2AU
<b>Cabled version (spare parts) (IEC only)</b>				
AUX-C 250 V 1 CONT. A1-A2	KA2ASSP			



01

#### Early auxiliary contacts AUE-C (IEC only)

The cabled early auxiliary contacts (AUE-C) are normally open contacts, which allow the undervoltage release to be supplied in advance prior to the closing of the main contacts in conformity with the IEC 60204-1, VDE 0113 standards.

It is possible to insert up to two early auxiliary contacts on closing inside the direct and extended rotary handle operating mechanism for three-pole circuit breakers. The contacts, supplied in the cabled version with cables 1 m long (20 AWG cable section/0.5 mm<sup>2</sup>), must be ordered in combination with an undervoltage release.

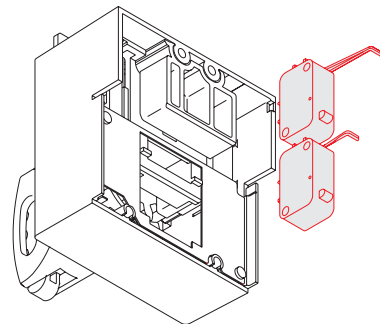
#### AUE -C — Electrical characteristics

Voltage (V)	Current (A)	
	AC	DC
125 DC	–	0.5
250 AC/DC	12	0.3

#### Early auxiliary contacts — AUE-C (IEC only)

	A1-A2
AUE-C	KA2RH-EM

Diagram



## Industrial Circuit Breakers

15-100A

Thermal Magnetic Trip

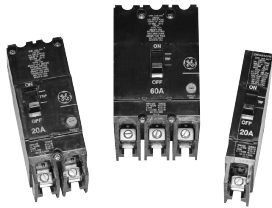
Type TEY/TEYF

Noninterchangeable Trip

Bolt-on

480Y/277V Class

TEY and TEYF breakers are one-inch wide per pole, compact, bolt-on circuit breakers for use on grounded 480Y/277 Vac systems. Short circuit ratings at that voltage for TEY and TEYF are 14 and 18kA, respectively. TEYF also offers higher selectivity ratings with upstream devices (See DET-537 for details). The bolt-on mounting base (TEY3B) shown on page 6-215 makes TEY and TEYF suitable for various lug-lug applications.



1- 2- and 3-pole TEY/TEYF breakers

### TEY/TEYF (UL/cUL File E-11592)

Ampere Rating	Wire Range <sup>1</sup>	Product Number	Product Number
<b>Single Pole - Includes Integral Cu/Al Load Lugs</b>		<b>Type TEY<sup>3,4</sup> 14kA @ 277 Vac</b>	<b>Type TEYF<sup>3,4</sup> 18kA @ 277 Vac</b>
15	#14-#10	TEY115 <sup>2</sup>	TEYF115 <sup>2</sup>
20	#14-#10	TEY120 <sup>2</sup>	TEYF120 <sup>2</sup>
25	#14-#10	TEY125	TEYF125
30	#14-#10	TEY130	TEYF130
35	#10-#4	TEY135	TEYF135
40	#10-#4	TEY140	TEYF140
45	#10-#4	TEY145	TEYF145
50	#10-#4	TEY150	TEYF150
60	#10-#4	TEY160	TEYF160
70	#4-1/0	TEY170	-
80	#4-1/0	TEY180	-
90	#4-1/0	TEY190	-
100	#4-1/0	TEY1100	-
<b>Two-Pole - Includes Integral Cu/Al Load Lugs</b>		<b>Type TEY<sup>3,4</sup> 14kA @ 480 / 277 Vac</b>	<b>Type TEYF<sup>3,4</sup> 18kA @ 480 / 277 Vac</b>
15	#14-#10	TEY215	TEYF215
20	#14-#10	TEY220	TEYF220
25	#14-#10	TEY225	TEYF225
30	#14-#10	TEY230	TEYF230
35	#10-#4	TEY235	TEYF235
40	#10-#4	TEY240	TEYF240
45	#10-#4	TEY245	TEYF245
50	#10-#4	TEY250	TEYF250
60	#10-#4	TEY260	TEYF260
70	#4-1/0	TEY270	TEYF270
80	#4-1/0	TEY280	TEYF280
90	#4-1/0	TEY290	TEYF290
100	#4-1/0	TEY2100	TEYF2100
110	#4-2/0	-	TEYF2110B
125	#4-2/0	-	TEYF2125B
<b>Three-Pole - Includes Integral Cu/Al Load Lugs</b>		<b>Type TEY<sup>3,4</sup> 14kA @ 480 / 277 Vac</b>	<b>Type TEYF<sup>3,4</sup> 18kA @ 480 / 277 Vac</b>
15	#14-#10	TEY315	TEYF315
20	#14-#10	TEY320	TEYF320
25	#14-#10	TEY325	TEYF325
30	#14-#10	TEY330	TEYF330
35	#10-#4	TEY335	TEYF335
40	#10-#4	TEY340	TEYF340
45	#10-#4	TEY345	TEYF345
50	#10-#4	TEY350	TEYF350
60	#10-#4	TEY360	TEYF360
70	#4-1/0	TEY370	TEYF370
80	#4-1/0	TEY380	TEYF380
90	#4-1/0	TEY390	TEYF390
100	#4-1/0	TEY3100	TEYF3100
110	#4-2/0	-	TEYF3110B
125	#4-2/0	-	TEYF3125B

<sup>1</sup>Solid or stranded for 14-10 AWG.<sup>2</sup>Single-pole, 15 and 20 ampere breakers are also UL listed as switching duty breakers, suitable for switching 120, 240, or 277 Vac.<sup>3</sup>UL listed HACR (Heating, Air Conditioning, Refrigeration).<sup>4</sup>UL listed for HID (high intensity discharge), all 50A or less.



## Industrial Circuit Breakers

15-125A

Thermal Magnetic Trip

Type TEYD/TEYH/TEYL

Noninterchangeable Trip

Bolt-on

480Y/277V Class

The TEY family of circuit breakers (TEY, TEYF, TEYD, TEYH, and TEYL) are one-inch wide per pole, compact, bolt-on circuit breakers for use on grounded 480Y/277 Vac systems, and are typically installed within Lighting Panelboards, including ABB A-Series. Short circuit ratings at 480/277 Vac are shown in the tables that follow. Ratings at other voltages are shown in the Quick Reference Guide at the beginning of this section. Bolt-On mounting bases TEY3B (page 6-66) and TEY3B125 (page 6-66) make these frames suitable for unit mount / lug-lug connected applications. Handle tie kits, suitable for use with multiple single pole breakers used on shared neutral circuits (page 6-66) are available for TEYD/H/L circuit breakers.



1- 2- and 3-pole  
TEYD/TEYH/TEYL breakers

### TEYD/TEYH/TEYL (UL/cUL File E-11592)

Ampere Rating	Wire Range <sup>1</sup>	Product Number	Product Number	Product Number
<b>Single Pole Includes Load Lugs</b>		<b>Type TEYD 25kA @ 480 / 277 Vac</b>	<b>Type TEYH 35kA @ 480 / 277 Vac</b>	<b>Type TEYL 65kA @ 480 / 277 Vac</b>
15	#14-#10	TEYD1015B	TEYH1015B	TEYL1015B
20	#14-#10	TEYD1020B	TEYH1020B	TEYL1020B
25	#10-#4	TEYD1025B	TEYH1025B	TEYL1025B
30	#10-#4	TEYD1030B	TEYH1030B	TEYL1030B
35	#10-#4	TEYD1035B	TEYH1035B	TEYL1035B
40	#10-#4	TEYD1040B	TEYH1040B	TEYL1040B
45	#10-#4	TEYD1045B	TEYH1045B	TEYL1045B
50	#10-#4	TEYD1050B	TEYH1050B	TEYL1050B
60	#10-#4	TEYD1060B	TEYH1060B	TEYL1060B
70	#4-2/0	TEYD1070B	TEYH1070B	TEYL1070B
<b>Two-Pole Includes Load Lugs</b>		<b>Type TEYD 25kA @ 480 / 277 Vac</b>	<b>Type TEYH 35kA @ 480 / 277 Vac</b>	<b>Type TEYL 65kA @ 480 / 277 Vac</b>
15	#14-10	TEYD2015B	TEYH2015B	TEYL2015B
20	#14-10	TEYD2020B	TEYH2020B	TEYL2020B
25	#10-#4	TEYD2025B	TEYH2025B	TEYL2025B
30	#10-#4	TEYD2030B	TEYH2030B	TEYL2030B
35	#10-#4	TEYD2035B	TEYH2035B	TEYL2035B
40	#10-#4	TEYD2040B	TEYH2040B	TEYL2040B
45	#10-#4	TEYD2045B	TEYH2045B	TEYL2045B
50	#10-#4	TEYD2050B	TEYH2050B	TEYL2050B
60	#10-#4	TEYD2060B	TEYH2060B	TEYL2060B
70	#4-2/0	TEYD2070B	TEYH2070B	TEYL2070B
80	#4-2/0	TEYD2080B	TEYH2080B	TEYL2080B
90	#4-2/0	TEYD2090B	TEYH2090B	TEYL2090B
100	#4-2/0	TEYD2100B	TEYH2100B	TEYL2100B
110	#4-2/0	TEYD2110B	TEYH2110B	TEYL2110B
125	#4-2/0	TEYD2125B	TEYH2125B	TEYL2125B
<b>Three-Pole Includes Load Lugs</b>		<b>Type TEYD 25kA @ 480 / 277 Vac</b>	<b>Type TEYH 35kA @ 480 / 277 Vac</b>	<b>Type TEYL 65kA @ 480 / 277 Vac</b>
15	#14-#10	TEYD3015B	TEYH3015B	TEYL3015B
20	#14-#10	TEYD3020B	TEYH3020B	TEYL3020B
25	#10-#4	TEYD3025B	TEYH3025B	TEYL3025B
30	#10-#4	TEYD3030B	TEYH3030B	TEYL3030B
35	#10-#4	TEYD3035B	TEYH3035B	TEYL3035B
40	#10-#4	TEYD3040B	TEYH3040B	TEYL3040B
45	#10-#4	TEYD3045B	TEYH3045B	TEYL3045B
50	#10-#4	TEYD3050B	TEYH3050B	TEYL3050B
60	#10-#4	TEYD3060B	TEYH3060B	TEYL3060B
70	#4-2/0	TEYD3070B	TEYH3070B	TEYL3070B
80	#4-2/0	TEYD3080B	TEYH3080B	TEYL3080B
90	#4-2/0	TEYD3090B	TEYH3090B	TEYL3090B
100	#4-2/0	TEYD3100B	TEYH3100B	TEYL3100B
110	#4-2/0	TEYD3110B	TEYH3110B	TEYL3110B
125	#4-2/0	TEYD3125B	TEYH3125B	TEYL3125B

<sup>1</sup>Solid or stranded for 14-10 AWG.

<sup>2</sup>Single-pole, 15 and 20 ampere breakers are also UL listed as switching duty breakers, suitable for switching 120, 240, or 277 Vac.

<sup>3</sup>UL listed HACR (Heating, Air Conditioning, Refrigeration).

<sup>4</sup>UL listed for HID (high intensity discharge), all 50A or less. ;

## Industrial Circuit Breakers

15-125A

Thermal Magnetic Trip

Type TEYD/TEYH/TEYL

Noninterchangeable Trip

Bolt-on

480Y/277V Class

### Internal Accessories for TEYD/TEYH/TEYL - Factory Installed Only

Description	Product Number
<b>TEYD/H/L UV Release<sup>1,3</sup></b>	
24 Vac	TEYXU1
48 Vac	TEYXU2
120 Vac	TEYXU3
240 Vac	TEYXU4
24 Vdc	TEYXU6
48 Vdc	TEYXU7
125 Vdc	TEYXU8
250 Vdc	TEYXU9
<b>TEYD/H/L Shunt Trip<sup>1</sup></b>	
24 Vac	TEYXS1
48 Vac	TEYXS2
120 Vac	TEYXS3
240 Vac	TEYXS4
24 Vdc	TEYXS6
48 Vdc	TEYXS7
125 Vdc	TEYXS8
250 Vdc	TEYXS9
<b>TEYD/H/L Auxiliary Switch<sup>2</sup></b>	
LT Pole	TEYXASL
RT Pole	TEYXASR
<b>Bell Alarm</b>	
TEYD/H/L Bell Alarm - Form C <sup>1</sup>	TEYXBA1

<sup>1</sup>Right hand mounting only.<sup>2</sup>Right or left hand mounting.<sup>3</sup>Only available in 3-pole circuit breaker.

### External Accessories for TEYD/TEYH/TEYL

Description	Product Number
<b>TEYD/H/L Mounting Base</b>	
3-P 15-100A Mounting Base	TEY3B
3-P 110/125A Mounting Base	TEY3B125
<b>TEYD/H/L Handle Tie</b>	
TEYD/H/L 2-Pole Handle Tie	TEYXHT2
10-Pack TEYD/H/L 2-Pole Handle Tie (10 Pack)	TEYXHT2K
TEYD/H/L 3-Pole Handle Tie	TEYXHT3
10-Pack TEYD/H/L 3-Pole Handle Tie (10 Pack)	TEYXHT3K
<b>TEYD/TEYH/TEYL Padlocking</b>	
Padlock Device	TEYXPLD1

### TEYD/TEYH/TEYL Reference Publications

Installation Instructions	DEH-41590
Mounting Base Installation Instructions	DEH-41556
1-Pole Circuit Breaker Outline Drawing	10106028SH1
3-Pole Circuit Breaker Outline Drawing	10106029SH1
2-Pole Circuit Breaker Outline Drawing	10106030SH1
TEY3B125 Mounting Base Outline Drawing	10110291SH1

# Industrial Circuit Breakers

10-150A Circuit Breakers  
 Thermal-Magnetic Trip  
 E150 Line Circuit Breakers  
 Types TEB, TED, THED  
 Noninterchangeable Trip



## Product Number Structure

<b>TEB</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>015</b>	<b>WL</b>
<b>Family/Interruption Rating</b>					<b>Lugs</b>
TEB = Core E / Low Tier					(blank) = Load Lugs
TED = Core E / Mid Tier					WL = Line & Load
THED = Core E / High Tier					
<b>Frame Rating (Amperes)</b>					<b>Ampere Rating</b>
1 = 150					010 to 150
<b>Poles</b>					<b>Voltage Rating</b>
1 = 1 pole					1 = 120V
2 = 2 poles					4 = 480V
3 = 3-poles					2 = 240V
					6 = 600V
					3 = 277V

Interruption Ratings shown on page 6-9

Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

## Single Pole — Includes Cu/Al load lugs only. If line lugs are required, add suffix “WL” to Product Number.

Ampere Rating	Type TEB	Type TED	Type THED		
	120 Vac 125 Vdc	277 Vac 125 Vdc	347 Vac <sup>1</sup>	277 Vac	347 Vac <sup>1</sup>
	Product Number	Product Number	Product Number	Product Number	Product Number
10	TEB111010 <sup>2,4</sup>	TED113010 <sup>2,4</sup>	—	—	—
15	TEB111015 <sup>3,4</sup>	TED113015 <sup>3,4</sup>	TED114015 <sup>3,4</sup>	THED113015 <sup>4</sup>	THED114015 <sup>3,4</sup>
20	TEB111020 <sup>3,4</sup>	TED113020 <sup>3,4</sup>	TED114020 <sup>3,4</sup>	THED113020 <sup>4</sup>	THED114020 <sup>3,4</sup>
25	TEB111025 <sup>4</sup>	TED113025 <sup>4</sup>	TED114025 <sup>4</sup>	THED113025 <sup>4</sup>	THED114025 <sup>4</sup>
30	TEB111030 <sup>4</sup>	TED113030 <sup>4</sup>	TED114030 <sup>4</sup>	THED113030 <sup>4</sup>	THED114030 <sup>4</sup>
35	TEB111035 <sup>4</sup>	TED113035 <sup>4</sup>	—	—	—
40	TEB111040 <sup>4</sup>	TED113040 <sup>4</sup>	—	—	—
45	TEB111045 <sup>4</sup>	TED113045 <sup>4</sup>	—	—	—
50	TEB111050 <sup>4</sup>	TED113050 <sup>4</sup>	—	—	—
60	TEB111060	TED113060	—	—	—
70	TEB111070	TED113070	—	—	—
80	TEB111080	TED113080	—	—	—
90	TEB111090	TED113090	—	—	—
100	TEB111100	TED113100	—	—	—

## Two Pole — Includes Cu/Al line and load lugs. For optional lugs, see page 6-216 and 6-218.

Ampere Rating	Type TEB	Type TED	Type THED, Hi-Break <sup>5</sup>
	240 Vac, 250 Vdc	480 Vac, 250 Vdc	480 Vac, 250 Vdc
	Product Number	Product Number	Product Number
10	TEB122010WL <sup>2,4</sup>	TED124010WL <sup>2,4</sup>	—
15	TEB122015WL <sup>4</sup>	TED124015WL <sup>4</sup>	THED124015WL <sup>4</sup>
20	TEB122020WL <sup>4</sup>	TED124020WL <sup>4</sup>	THED124020WL <sup>4</sup>
25	TEB122025WLv	TED124025WL <sup>4</sup>	THED124025WL <sup>4</sup>
30	TEB122030WL <sup>4</sup>	TED124030WL <sup>4</sup>	THED124030WL <sup>4</sup>
35	TEB122035WL <sup>4</sup>	TED124035WL <sup>4</sup>	THED124035WL <sup>4</sup>
40	TEB122040WL <sup>4</sup>	TED124040WL <sup>4</sup>	THED124040WL <sup>4</sup>
45	TEB122045WL <sup>4</sup>	TED124045WL <sup>4</sup>	THED124045WL <sup>4</sup>
50	TEB122050WL <sup>4</sup>	TED124050WL <sup>4</sup>	THED124050WL <sup>4</sup>
60	TEB122060WL	TED124060WL	THED124060WL
70	TEB122070WL	TED124070WL	THED124070WL
80	TEB122080WL	TED124080WL	THED124080WL
90	TEB122090WL	TED124090WL	THED124090WL
100	TEB122100WL	TED124100WL	THED124100WL
110	—	TED124110WL	—
125	—	TED124125WL	—
150	—	TED124150WL	—

<sup>1</sup>Suitable for 10 kAIC at 480 Vac, but not labeled or UL listed.

<sup>2</sup>Not UL listed, rated 5kA @ 120V, 240V and 480V.

<sup>3</sup>Single-pole, 15- and 20-ampere breakers are also UL listed as switching duty breakers, suitable for switching 120 Vac (TEB), 277, 347 Vac (TED, THED) fluorescent lighting loads.

<sup>4</sup>UL listed for HID (high intensity discharge).

<sup>5</sup>Two-pole breaker is furnished in three-pole case.

Notes: All TEB, TED, THED breakers UL listed as HACR type except 10 ampere. All TEB, TED, THED breakers suitable for reverse feed. 60/75°C rating through 100 amperes, 75°C rating above 100 amperes.

## Industrial Circuit Breakers

10-150A Circuit Breakers

Thermal-Magnetic Trip

E150 Line Circuit Breakers

Types TEB, TED, THED

Noninterchangeable Trip

**Three Pole — Includes Cu/Al line and load lugs. For optional lugs, see page 6-216 and 6-218.**

Ampere Rating	Type TEB	Type TED	Type THED, Hi-Break	
	240 Vac	480 Vac	600 Vac	600 Vac
	Product Number	Product Number	Product Number	Product Number
10	TEB132010WL <sup>1,3</sup>	TED134010WL <sup>1,3</sup>	–	–
15	TEB132015WL <sup>3</sup>	TED134015WL <sup>3</sup>	–	–
20	TEB132020WL <sup>3</sup>	TED134020WL <sup>3</sup>	TED136020WL <sup>3</sup>	THED136020WL <sup>3</sup>
25	TEB132025WL <sup>3</sup>	TED134025WL <sup>3</sup>	TED136025WL <sup>3</sup>	THED136025WL <sup>3</sup>
30	TEB132030WL <sup>3</sup>	TED134030WL <sup>3</sup>	TED136030WL <sup>3</sup>	THED136030WL <sup>3</sup>
35	TEB132035WL <sup>3</sup>	TED134035WL <sup>3</sup>	TED136035WL <sup>3</sup>	THED136035WL <sup>3</sup>
40	TEB132040WL <sup>3</sup>	TED134040WL <sup>3</sup>	TED136040WL <sup>3</sup>	THED136040WL <sup>3</sup>
45	TEB132045WL <sup>3</sup>	TED134045WL <sup>3</sup>	TED136045WL <sup>3</sup>	THED136045WL <sup>3</sup>
50	TEB132050WL <sup>3</sup>	TED134050WL <sup>3</sup>	TED136050WL <sup>3</sup>	THED136050WL <sup>3</sup>
60	TEB132060WL	TED134060WL	TED136060WL	–
70	TEB132070WL	TED134070WL	TED136070WL	THED136070WL
80	TEB132080WL	TED134080WL	TED136080WL	–
90	TEB132090WL	TED134090WL	TED136090WL	THED136090WL
100	TEB132100WL	TED134100WL	TED136100WL	THED136100WL
110	–	TED134110WL	TED136110WL	THED136110WL
125	–	TED134125WL	TED136125WL	THED136125WL
150	–	TED134150WL	TED136150WL	THED136150WL
100NA	–	TED134YT100 <sup>2</sup>	TED136YT100 <sup>2</sup>	–
150NA	–	TED134YT150 <sup>2</sup>	TED136YT150 <sup>2</sup>	–

<sup>1</sup>Not UL listed, rated 5kA @ 120V, 240V and 480V.

<sup>2</sup>Includes factory-installed dummy trip.

<sup>3</sup>UL listed for HID (high intensity discharge).

Notes: All TEB, TED, THED breakers UL listed as HACR type except 10 ampere.

All TEB, TED, THED breakers suitable for reverse feed.

60/75°C rating through 100 amperes, 75°C rating above 100 amperes.

Accessories: See pages 6-207 to 6-218.

### Add-on Current Limiter — UL Listed 100 kAIC at 480 and 600 VAC<sup>4</sup>

Ampere Rating	Product Number
15	TEDL36015
20	TEDL36020
30 and 60	TEDL36060
100	TEDL36100

<sup>4</sup>For use with 3 Pole TED/THED only

### E150 Reference Publications

TDR Operating Mechanism	GEH-2994
Shunt Trip	GEH-3416
Undervoltage Release	GEH-3417
Auxiliary Switch	GEH-3418
Three Coil Shunt Trip	GEH-3434
Mechanical Interlock	GEH-4310
TDM Operating Mechanism	GEH-4335
Bell Alarm	GEH-4576
Plug-in Mounting Base	GEH-4610
STDA Flange Handle	GEH-5314
STDA Operating Mechanism	GEH-5684
Cable Operator Mechanism	GEH-6290
Motor Operator	GEH-6500
Back Connected Studs	GEJ-3609
Padlocking Device - Standard	GEJ-5143
E150 Outline Drawing	139C3643SH1, 2, 4

# Internal Accessories

## Molded Case Circuit Breakers

### Accessory Devices and Ratings

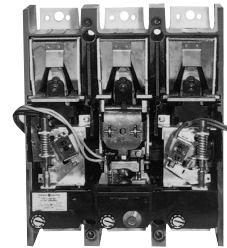
Internally mounted accessories can be either factory or field installed, but should be factory installed when UL listing is required.

Factory installed devices with leads exiting from the side are UL listed, but when leads exit from the back the UL listing is void.

For accessory installation combinations refer to table below.

“Mounting Pole” refers to left-, center- or right-hand pole as seen when facing the front of the breaker. Control leads may exit the breaker from its side (S) or back (B)<sup>1</sup>.

Nonautomatic circuit breakers (molded case switches) require dummy trip units if internal accessories are to be field installed (refer to page 6-73).



J Frame Circuit Breaker with Internal Accessories Mounted in Each Pole

- Pole Positions**  
 L—Left  
 C—Center  
 R—Right
- Lead Wire Exit**  
 S—Side  
 B—Back

Breaker Type	Bell Alarm Switch				Auxiliary Switch <sup>3</sup> or Shunt Trip			Undervoltage Release			Three Coil Shunt Trip			Total Number of Accessories Within any One Circuit Breaker
	Mounting Pole			Inst. Sheet GEH-	Mounting Pole		Inst. Sheet GEH-	Mounting Pole		Inst. Sheet GEH-	Mounting Pole		Inst. Sheet GEH-	
	L	C	R		L	R		L	R		L	R		
TQB, THQB, THHQB, TXQB, TQL, THQL, THHQL, TXQL, TQC, THQC, THHQC, TXQC	-	-	-	-	UL	-	<sup>4</sup>	-	-	-	-	-	-	One accessory only. Mounts in a one-inch frame and increase overall breaker size by one pole. May be applied to 1-, 2-, or 3-pole breakers.
TQD, THQD	-	-	-	-	-	UL	<sup>4</sup>	-	-	-	-	-	-	One accessory only
E150 TEB, TEC, TED, THED, THLC1	UL <sup>7</sup>	-	UL	4576	UL <sup>7</sup>	UL	3418 Aux 3416 S.T.	-	UL	3417	-	UL <sup>8</sup>	3434	2-pole circuit breaker—any one 3-pole circuit breaker—any two except UVR and 3-coil shunt trip
F225 <sup>9</sup> , THLC2, THLC4, TLB2, TLB4	-	-	UL	4620	UL	UL	4653	UL	UL	4653	UL <sup>8</sup>	UL	4622	any two
J600 THJK	-	UL <sup>8</sup>	-	3320	UL	UL	3321 Aux 3435 S.T.	-	UL	5407	UL <sup>8</sup>	-	3346	Any two plus bell alarm except TB4, TBC4 any one plus bell alarm .
K1200	-	UL <sup>8</sup>	-	4305	UL	UL	3321 Aux 3344 S.T.	-	UL	5408	UL <sup>8</sup>	-	3346	Any two plus bell alarm
Accessory-Lead Color Coding <sup>10</sup>	<p><b>Bell Alarm Switch</b></p>				<p><b>Auxiliary Switch</b></p>			<p><b>Undervoltage Release</b></p>			<p><b>Three-Coil Shunt Trip</b></p>			All accessory contacts shown with the circuit breaker in tripped position.
	<p><b>Shunt Trip</b></p>													

<sup>1</sup>F225 line model 4 frames and trips (mfg. code date J101+ (1981 or later), and THLC2, THLC4, TLB4 are UL listed for field installation of most accessories.

<sup>2</sup>Not UL listed.

<sup>3</sup>600 Vac auxiliary switches are not UL listed.

<sup>4</sup>Accessories are factory installed only.

<sup>7</sup>Left pole mounting available for two-pole THED but not for two-pole TEB, TED.

<sup>8</sup>Not available with lead exit from the back of breaker.

<sup>9</sup>UL listed interrupting capacity with accessories: 10 kAIC at 600 Vac, 22 kAIC at 480 Vac, 22 kAIC at 240 Vac.

<sup>10</sup>Leads are #18 125°C Vulkene insulated.

## Internal Accessories

### Internally Mounted Signaling and Controlling Functions

#### Auxiliary Switches

Unless otherwise noted switch is SPDT rated 6 amperes at rated ac voltage, 1/2 amperes at 125 Vdc, 1/4 amperes at 250 Vdc.

Breaker Type	Number of SPDT Switch Elements	Control Voltage 240 Vac, 250 Vdc Maximum UL Listed When Factory Installed Suffix <sup>1</sup>		Control Voltage 600 Vac, 250 Vdc Maximum Not UL Listed Suffix <sup>1</sup>	
		Base Number	Add to Base Product Number for Factory Installation <sup>4</sup>	Base Number	Add to Base Product Number for Factory Installation <sup>4</sup>
TEB, TEC, TB1	1	TEDAS2AB1R,L <sup>2,3</sup>	S	TEDAS6AB1R,L <sup>2,3</sup>	S
TED, THED, THLC1 <sup>3</sup>	2	TEDAS2AB2R,L <sup>2,3</sup>	S	TEDAS6AB2R,L <sup>2,3</sup>	S

<sup>1</sup>"S" suffix for wires out the side of breaker. For lead exit from back of breaker, replace suffix "S" with "B" and multiply list price by 1.25. "B" suffix not UL listed.

Not available with leads out the back for "Q-Line", or 2 element auxiliary switches used on TFG, TFJ, TFK, THFK, THLC2, THLC4, TLB2, and TLB4.

<sup>2</sup>Auxiliary switch mounts in right pole only on two-pole TEB, TED breakers. (Factory installed only.)

<sup>3</sup>Not available with "B" suffix—leads out back.

<sup>4</sup>For factory installation, contact Customer Service Center.

## Internal Accessories

### Internally Mounted Signaling and Controlling Functions

#### How to Order

For field replacement, order base number only. For factory installation, contact Customer Service Center and order base number plus appropriate suffix. For a nonautomatic breaker (molded case switch) a dummy trip is required when installing either a shunt trip or UVR.

#### Shunt Trip

Remote Tripping – Trips breaker by remote control. Trip coil de-energized when breaker opens. Device meets UL requirements for service to ground fault system.

#### Undervoltage Release

Undervoltage release automatically trips breaker when applied coil voltage drops to 30 to 70 percent of rated value. Time-delay unit prevent nuisance tripping due to momentary loss of voltage. Separate externally mounted unit has 120 Vac input and 125 Vdc output. Used in conjunction with 125 Vdc undervoltage release which must be ordered separately. Product number SPUVTD for adjustable delay .1 to 1.0 seconds.

#### Shunt Trip

Breaker Type	Accessory Voltage		Product Number <sup>1,2</sup> — UL Listed When Factory Installed	
	Vac	Vdc	Base Number for Field Replacement	Suffix Number <sup>3</sup> Add to Base Product Number for Factory Installation
TQB, THQB, THHQB, TXQB, TQL, THQL, THHQL, TXQL	120-240	–	TQSTA1 <sup>4,5,6,7</sup>	10
	–	12	TQSTA7 <sup>4,6,7</sup>	10
	–	24-48	TQSTA8 <sup>4,6,7</sup>	10
TQD, THQD	120	–	TQDST1 <sup>8,9</sup>	10
	240	–	TQDST2 <sup>9</sup>	10
	–	12	TQDST7 <sup>9</sup>	10
	–	24	TQDST8 <sup>9</sup>	10
TEB, TEC, TB1-B <sup>11</sup> , TED, THED, THLC1	120	–	TEDST12	RS
	240	–	TEDST12	RS
	480	–	TEDST13	RS
	600	–	TEDST13	RS
	–	12	TEDST7	RS
	–	24	TEDST8	RS
	–	48	TEDST9	RS
	–	125	TEDST12	RS
–	250	TEDST11	RS	

<sup>2</sup>For replacement voltage suppressor on 120 Vac UVRs for F225 line, order Product Number 286A8062G1. for 120 Vac UVRs on all other breaker lines, order Product Number 192A8300G1.

<sup>3</sup>"S" suffix for wires out the side of the breaker. For lead exit from back of breaker, replace suffix "S" with "B", and multiply "S" accessory List Price by 1.25. "B" suffix not UL listed. Not available with leads out the back on "Q-Line." For factory installation, contact Customer Service Center.

<sup>4</sup>Mounts on a one-inch frame and increases overall breaker size by one pole added to left side. May be applied to 1-, 2-, or 3-pole breakers. Maximum total breaker width is 4-pole. Must be factory installed.

<sup>5</sup>A selective listing of breaker product numbers that include 120 Volt ac shunt trip appears on page 6-37.

<sup>6</sup>Not available on GFCI (5 ma) or Equipment Ground Fault (30 ma) breakers.

<sup>7</sup>TQST shunt trips not available on breakers over 100 A.

<sup>8</sup>Not available with "B" suffix—leads out back.

<sup>9</sup>Must be factory installed, right pole only.

<sup>10</sup>To order, specify both the accessory and breaker product number =, e.g. THQL2130, TQST1 identifies a 30 A, 2-pole plug-in breaker with a factory installed 120 Vac shunt trip.

## Internal Accessories

### Internally Mounted Signaling and Controlling Functions

#### Undervoltage Release

Breaker Type	Accessory Voltage		Product Number <sup>1,2</sup> — UL Listed When Factory Installed	
	Vac	Vdc	Base Number for Field Replacement	Suffix Number <sup>3</sup> Add to Base Product Number for Factory Installation
TEB, TEC, TB1-B <sup>4</sup> TED, THED, THLC1	120	–	TEDUV1	RS
	240	–	TEDUV2	RS
	480	–	TEDUV4	RS
	600	–	TEDUV6	RS
	–	12	TEDUV7	RS
	–	24	TEDUV8	RS
	–	48	TEDUV9	RS
	–	125	TEDUV10	RS
	–	250	TEDUV11	RS

<sup>1</sup>UL listed for field installation on TFC, TFJ, TFK, and THFK model 4 frames and trips (mfg. Code date J101 or later) and on THLC2, THLC4, TLB4.

<sup>2</sup>For replacement voltage suppressor on 120 Vac UVRs for F225 line, order Product Number 286A8062G1 for 120 Vac UVRs on all other breaker lines, order Product Number 192A8300G1.

<sup>3</sup>"S" suffix for wires out the side of the breaker. For lead exit from back of breaker, replace suffix "S" with "B". "B" suffix not UL listed. For factory installation, contact Customer Service Center.

<sup>4</sup>For TB1 with bolt-on limiters.



**Internal Accessories**

Internally Mounted Signaling and Controlling Functions

**Bell Alarm Switches**

Breaker Type	Product Number <sup>2</sup> UL Listed When Factory Installed	
	Base No.	Suffix
	TEB, TEC, TB1 TED, THED, THLC1	TEDBAR or TEDBAL <sup>3,4</sup>

**Blown Fuse Detector-Three-Coil Shunt Trip**

Breaker Type	Product Number <sup>2</sup> UL Listed When Factory Installed	
	Base No.	Suffix
TED, THED, TEC <sup>3</sup>	TEDST316	RS

Breaker Type	Product Number
E150	Internal accessories for these noninterchangeable breakers require factory-installed dummy trips. Automatically supplied when accessories are ordered.
FJ225	
JJ400	

<sup>1</sup>Not UL listed when field installed.

<sup>2</sup>Add "B" suffix for leads exit from back of breaker. For factory installation, contact Customer Service Center.

<sup>3</sup>Not available with "B" suffix – leads out back.

<sup>4</sup>Not available for two-pole TEB, TED. Order TEDBAR.

# Tmax XT1-XT7

## U.S. Ordering Code construction

See pages 6-75 to 6-78 for remaining descriptions



**1 & 2: Version**

XT

**3: Frame**

1
2
3
4
5
6
7

**4: Interrupting ratings<sup>1</sup>**

	B	C	D	N	S
UL kA @ 480 V	-	-	-	25	35
UL kA @ 600V/347 V	-	-	-	18/10	22/10
UL kA @ 600 V	-	-	-	18	22
IEC kA @ 415 V	18	25	MCS	36	50
	H	L	V	X	
UL kA @ 480 V	65	100	150	200	
UL kA @ 600V/347 V	25	-	-	-	
UL kA @ 600 V	25	35/50	42/65	42/100/65	
IEC kA @ 415 V	70	120	150	-	

<sup>1</sup>For additional information, please refer to catalog 15XU210248C0201 pages 2/2- 2/14.

**5: Standard UL & IEC**

U = UL 80%
Q = UL 100%
C = UL 80% + CCC
D = UL 100% + CCC
E = IEC only
5 = IEC 50°C

**6: Number of poles**

2 = 2 Poles
3 = 3-poles
4 = 4 P 100%
N = 4P 50% (IEC only)

**10: Trip unit**

A = TMF
B = TMA/TMD
C = Ekip DIP LIG
D = MCS
E = Ekip DIP LS/I
F = Ekip DIP LSI
G = Ekip DIP LSIG
H = Ekip DIP E-LSIG
J = Ekip DIP I
K = Ekip DIP M-I
L = Ekip DIP M-LIU
M = MA (MCP)
N = TMG
P = Ekip Touch LSI
Q = Ekip Touch LSIG
R = Ekip Touch Measuring LSI
S = Ekip Touch Measuring LSIG
T = Ekip Hi-Touch LSI
U = Ekip Hi-Touch LSIG
W = Ekip M Touch LRIU
X = Ekip G Dip LS/I
Y = Ekip G Touch LSIG
Z = Ekip G Hi-Touch LSIG

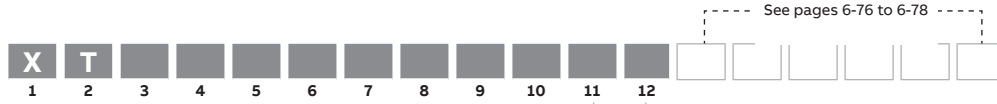
**7, 8, 9: Amp frame**

XT1-4		XT5-7	
Digits	Amps	Digits	Amps
010 = 10 A		25A = 250 A (XT5)	
015 = 15 A		30A = 300 A (XT5)	
020 = 20 A		32A = 320 A (XT5 IEC <sup>2</sup> )	
025 = 25 A		40A = 400 A (XT5)	
030 = 30 A		50B = 500 A (XT5)	
035 = 35 A		60B = 600 A (XT5)	
040 = 40 A		600 = 600 A (XT6)	
045 = 45 A		60C = 600 A (XT7)	
050 = 50 A		63B = 630 A (XT5 IEC <sup>2</sup> )	
060 = 60 A		630 = 630 A (XT6 IEC <sup>2</sup> )	
070 = 70 A		800 = 800 A (XT6)	
080 = 80 A		80C = 800 A (XT7)	
090 = 90 A		1K0 = 1000 A (XT6 IEC <sup>2</sup> )	
100 = 100 A		10D = 1000 A (XT7)	
110 = 110 A		12E = 1200 A/1250 A (XT7)	
125 = 125 A		16F = 1600 A (XT7 IEC <sup>2</sup> )	
150 = 150 A			
175 = 175 A			
200 = 200 A			
225 = 225 A			
250 = 250 A			

<sup>2</sup>IEC only.

# Tmax XT1-XT7

## U.S. Ordering Code construction



**11: Line side termination (top)**

F = F front terminals, no lugs installed
A = FC Cu Terminals for Cu cables (saddle clamps)
B = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 110 A-125 (XT1, XT2)
C = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 110 A, control tap included (XT2)
D = KIT FC CuAl 10-2/0 AWG (XT1, XT2)
E = KIT FC CuAl 10-2/0 AWG control tap included (XT1, XT2)
G = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 100 A (XT3, XT4)
H = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 100 A, control tap included (XT3, XT4)
J = KIT FC CuAl 4 AWG-300 kcmil, 225A (XT3, XT4)
K = FC CuAl Terminals for CuAl cables, 4 AWG-300 kcmil, 225 A, control tap included (XT3, XT4)
L = FC CuAl Terminals for CuAl Cables, 3/0 AWG-350 kcmil, 250 A (XT4)
M = FC CuAl Terminals for CuAl Cables, 3/0 AWG-350 kcmil, 250 A, control tap included (XT4)
Z = MC Multi-cable terminals for Cu (6x14-2 AWG)
1 = EF Extended front terminals
2 = ES Extended spread terminals
3 = FB Terminals for flexible busbar
4 = R Rear terminals
6 = Plug-in kit (must also use 6 for load side)
7 = Withdrawable kit (must also use 7 for the load side) (XT2, XT4)
8 = FC CuAl 1x4/0 AWG-500 kcmil (XT5)
9 = FCCuAl 1x6 AWG-350 kcmil (XT5)
N = FC CuAl 2x2/0 AWG-500 kcmil (XT5)
P = KIT FCCuAl 1x500 kcmil control tap included (XT5)
Q = KIT FCCuAl 1x350 kcmil control tap included (XT5)
R = KIT FCCuAl 2x500 kcmil control tap included (XT5, XT6)
S = KIT FCCuAl 500-750 kcmil (XT5)
O = KIT FCCuAl 500-750 kcmil control tap included (XT5)
T = FC CuAl 2x250-500 kcmil (XT6)
U = FC CuAl 3x2/0 AWG-400 kcmil (XT6)
V = FC CuAl 3x400 kcmil control tap included (XT6)
W = FC CuAl 4x4/0 AWG-500 kcmil
X = FC CuAl 3x500-750 kcmil
Y = LSC for ReliaGear NeXT power panelboard

**12: Load side termination (bottom)**

F = F front terminals, no lugs installed
A = FC Cu Terminals for Cu cables (saddle clamps)
B = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 110 A-125 (XT1, XT2)
C = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 110 A, control tap included (XT2)
D = KIT FC CuAl 10-2/0 AWG (XT1, XT2)
E = KIT FC CuAl 10-2/0 AWG control tap included (XT1, XT2)
G = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 100 A (XT3, XT4)
H = FC CuAl Terminals for CuAl cables, 14-1/0 AWG, 100 A, control tap included (XT3, XT4)
J = KIT FC CuAl 4 AWG-300 kcmil, 225A (XT3, XT4)
K = FC CuAl Terminals for CuAl cables, 4 AWG-300 kcmil, 225 A, control tap included (XT3, XT4)
L = FC CuAl Terminals for CuAl Cables, 3/0 AWG-350 kcmil, 250 A (XT4)
M = FC CuAl Terminals for CuAl Cables, 3/0 AWG-350 kcmil, 250 A, control tap included (XT4)
Z = MC Multi-cable terminals for Cu (6x14-2 AWG)
1 = EF Extended front terminals
2 = ES Extended spread terminals
3 = FB Terminals for flexible busbar
4 = R Rear terminals
6 = Plug-in kit (must also use 6 for load side)
7 = Withdrawable kit (must also use 7 for the line side) (XT2, XT4)
8 = FC CuAl 1x250-500 kcmil (XT5)
9 = FC CuAl 1x6 AWG-350 kcmil (XT5)
N = FC CuAl 2x2/0 AWG-500 kcmil (XT5)
P = KIT FCCuAl 1x500 kcmil control tap included (XT5)
Q = KIT FCCuAl 1x350 kcmil control tap included (XT5)
R = KIT FCCuAl 2x500 kcmil control tap included (XT5, XT6)
S = KIT FCCuAl 500-750 kcmil (XT5)
O = KIT FCCuAl 500-750 kcmil control tap included (XT5)
T = FC CuAl 2x250-500 kcmil (XT6)
U = FC CuAl 3x2/0 AWG-400 kcmil (XT6)
V = FC CuAl 3x400 kcmil control tap included (XT6)
W = FC CuAl 4x4/0 AWG-500 kcmil
X = FC CuAl 3x500-750 kcmil

# Tmax XT1-XT7

## U.S. Ordering Code construction (cont.)



**13 & 14: Internal accessories**

00	None
<b>Shunt trip, open</b>	
A0	= (SOR-C) 12 V DC (XT1-XT4)
B0	= (SOR-C) 24-30 V AC/DC (XT1-XT4)
C0	= (SOR-C) 48-60 V AC/DC (XT1-XT4)
D0	= (SOR-C) 110-127 V AC/110-125 V DC (XT1-XT4)
E0	= (SOR-C) 220-240 V AC/220-250 V DC (XT1-XT4)
F0	= (SOR-C) 380-440 V AC (XT1-XT4)
G0	= (SOR-C) 480-525 V AC (XT1-XT4)
A0	= (YO-C) 12 V DC (XT5, XT6)
B0	= (YO-C) 24-60 V AC/DC (XT5, XT6)
D0	= (YO-C) 110-240 V AC, 110-250 V DC (XT5, XT6)
F0	= (YO-C) 380-440 V AC (XT5, XT6)
G0	= (YO-C) 480-525 V AC (XT5, XT6)
A0	= (YO) 24 V AC/DC (XT7)
B0	= (YO) 48 V AC/DC (XT7)
C0	= (YO) 60 V AC/DC (XT7)
D0	= (YO) 110-120 V AC/DC (XT7)
E0	= (YO) 120-127 V AC/DC (XT7)
F0	= (YO) 220-240 V AC/DC (XT7)
G0	= (YO) 240-250 V AC/DC (XT7)
H0	= (YO) 380-400 V AC (XT7)
I0	= (YO) 415-440 V AC (XT7)
J0	= (YO) 480-500 V AC (XT7)
<b>Undervoltage release</b>	
10	= (UVR-C) 24-30 V AC/DC (XT1-XT4)
20	= (UVR-C) 48 V AC/DC (XT1-XT4)
30	= (UVR-C) 60 V AC/DC (XT1-XT4)
40	= (UVR-C) 110-127 V AC 110-125 V DC (XT1-XT4)
50	= (UVR-C) 220-240 V AC 220-250 V DC (XT1-XT4)
60	= (UVR-C) 380-440 V AC (XT1-XT4)
70	= (UVR-C) 480-525 V AC (XT1-XT4)
80	= (YU-C) 12 V DC (XT5, XT6)
10	= (YU-C) 24-30 V AC/DC (XT5, XT6)
20	= (YU-C) 48-60 V AC/DC (XT5, XT6)
40	= (YU-C) 110-127 V AC 110-125 V DC (XT5, XT6)
50	= (YU-C) 220-240 V AC 220-250 V DC (XT5, XT6)
60	= (YU-C) 380-440 V AC (XT5, XT6)
70	= (YU-C) 480-525 V AC (XT5, XT6)
10	= (YU) 24 V AC/DC (XT7)
20	= (YU) 48 V AC/DC (XT7)
30	= (YU) 60 V AC/DC (XT7)
40	= (YU) 110-120 V AC/DC (XT7)
K0	= (YU) 120-127 V AC/DC (XT7)
50	= (YU) 220-240 V AC/DC (XT7)
80	= (YU) 240-250 V AC/DC (XT7)
60	= (YU) 380-400 V AC (XT7)
90	= (YU) 415-440 V AC (XT7)
70	= (YU) 480-500 V AC (XT7)

**Signaling**

C0	= EKIP signaling 1K-1 (XT5)
E0	= EKIP maintenance module (XT5)
L0	= Ekip supply 24-48 V DC (XT7)
M0	= Ekip supply 110-240 V AC/DC (XT7)
N0	= 1 x Ekip signaling 2k-1 + supply 24-48 V DC (XT7)
P0	= 1 x Ekip signaling 2k-1 + supply 110-240 V AC/DC (XT7)
Q0	= 2 x Ekip signaling 2k-1 + supply 24-48 V DC (XT7)
R0	= 2 x Ekip signaling 2k-1 + supply 110-240 V AC/DC (XT7)
S0	= 1 x Ekip signaling 3T-1 + supply 24-48 V DC (XT7)
T0	= 1 x Ekip signaling 3T-1 + supply 110-240 V AC/DC (XT7)
U0	= 2 x Ekip signaling 3T-1 + supply 24-48 V DC (XT7)
V0	= 2 x Ekip signaling 3T-1 + supply 110-240 V AC/DC (XT7)
W0	= Ekip CI + supply 24-48 V DC (XT7)
X0	= Ekip CI + supply 110-240 V AC/DC (XT7)
<b>Auxiliary contacts</b>	
0A	= AUX-C 1Q+1SY 250 V AC/DC (XT1-XT6)
0B	= AUX-C 2Q+1SY 250 V AC/DC (XT1-XT6)
0C	= AUX-C 3Q+1SY 250 V AC/DC (XT2-XT6)
0D	= AUX-C 3Q+2SY 250 V AC/DC (XT2, XT4)
0E	= AUX-C 2Q+2SY+1 S51 250 V AC/DC (XT2, XT4)
0F	= AUX-C 1 S51 250 V AC/DC (XT2, XT4, XT5, XT6)
0G	= AUX-C 1Q+1SY 24 V DC (XT1-XT6)
0H	= AUX-C 3Q+1SY 24 V DC (XT2-XT6)
0J	= AUX-C 1 S51 24 V DC (XT2, XT4, XT5, XT6)
0K	= AUX-C 1Q+1SY 400 V AC (XT2, XT4, XT5)
0L	= AUX-C 2Q 400 V AC (XT2, XT4, XT5)
Z0	= AUX-C 3Q L 250 V AC (XT1-XT4)
0I	= AUX-C 1Q + 1SY L 250 V AC/DC (XT5)
0M	= AUX-C 1Q + 1SY L 24 V DC (XT5)
0N	= AUX-C 1S52 250 V AC/DC (XT5, XT6)
0P	= AUX-C 1S52 24 V DC (XT5, XT6)
0A	= AUX 4Q 400 V AC (XT7)
0B	= AUX 4Q 24 V DC (XT7)
0C	= AUX 2Q 400 V AC + 2Q 24 V DC (XT7)
0D	= AUX 1S52 24 V DC (XT7)
0E	= AUX 1S52 250 V AC (XT7)
0F	= AUX 1SY 24 V DC (XT7)
0G	= AUX 1SY 400 V AC (XT7)
0H	= S51 250 V AC (XT7)
0I	= S51 24 V DC (XT7)

**Ekip COMs**

01	= Ethernet (XT2, XT4, XT5)
02	= Hub (XT2, XT4, XT5)
03	= IEC61850 (XT2, XT4, XT5)
04	= Modbus RTU/STA Modbus RTU (XT2, XT4, XT5)
05	= Modbus TCP/STA Modbus TCP (XT2, XT4, XT5)
04	= STA Modbus RTU (XT2, XT4, XT5)
05	= STA Modbus TCP (XT2, XT4, XT5)
06	= Profinet (XT2, XT4, XT5)
07	= Ekip Link (XT2, XT4, XT5)
08	= OPC UA (XT5)
09	= Open ADR (XT5)
Y0	= Modbus RTU + supply 24-48 V DC (XT7)
Z0	= Modbus TCP + supply 24-48 V DC (XT7)
0J	= Profibus + supply 24-48 V DC (XT7)
OK	= Profinet + supply 24-48 V DC (XT7)
0L	= Devicenet + supply 24-48 V DC (XT7)
0M	= Ethernet/IP + supply 24-48 V DC (XT7)
0N	= IEC61850 + supply 24-48 V DC (XT7)
0P	= Ekip Link + supply 24-48 V DC (XT7)
0Q	= Hub + supply 24-48 V DC (XT7)
0R	= Modbus RTU + supply 110-240 V AC/DC (XT7)
0S	= Modbus TCP + supply 110-240 V AC/DC (XT7)
0T	= Profibus + supply 110-240 V AC/DC (XT7)
0U	= Profinet + supply 110-240 V AC/DC (XT7)
0V	= Devicenet + supply 110-240 V AC/DC (XT7)
0W	= Ethernet/IP + supply 110-240 V AC/DC (XT7)
0X	= IEC61850 + supply 110-240 V AC/DC (XT7)
0Y	= Ekip Link + supply 110-240 V AC/DC (XT7)
0Z	= Hub + supply 110-240 V AC/DC (XT7)
01	= Ekip Syncrocheck + supply 24-48 V DC (XT7)
02	= Ekip Syncrocheck + supply 110-240 V AC/DC (XT7)

Note: Additional combination available through the Tmax XT configurator.  
 1) An XT7 frame includes a 24-48 V DC Ekip power supply.  
 \* Under development

# Tmax XT1-XT7

## U.S. Ordering Code construction (cont.)

See pages 6-74 to 6-75 for descriptions



<p><b>16: Key locks</b></p> <p>X = None</p> <p>A = Ronis key lock, open position – A type</p> <p>B = Ronis key lock, open position – B type</p> <p>C = Ronis key lock, open position – C type</p> <p>D = Ronis key lock, open position – D type</p> <p>E = Ronis key lock, open position – different keys</p> <p>F = Ronis key lock, open/closed – different keys (not available for motors)</p> <p>G = KLC-A key lock open kirk (XT5 - XT7)</p> <p>H = KLC-A key lock open Ronis 1104 (XT5 - XT7)</p> <p>J = KLC-A key lock open STI (XT5 - XT7)</p> <p>K = KLC-A Castell key lock open (XT5 - XT7)</p>	<p><b>17: Advanced functionality</b></p> <p>X = None</p> <p>A = Class 1 power &amp; energy metering</p> <p>G = Measuring</p> <p>H = Voltages protection</p> <p>J = Frequency protection</p> <p>K = Power protection</p> <p>L = Adaptive protection</p> <p>M = Datalogger</p> <p>N = Network analyzer</p> <p>P = Voltages protection advanced</p> <p>Q = ROCOF protection</p> <p>R = EKIP power controller</p> <p>S = ATS main-tie-main closed license</p> <p>T = ATS main-tie-main open license</p> <p>U = ATS main-main closed license</p> <p>V = ATS main-main open license</p> <p>W = Synchro reclosing</p> <p>X = IPS – Interface protection system</p> <p>Y = Load shedding – predictive</p> <p>Z = Load shedding – adaptive</p>	<p><b>18: Additional certifications</b></p> <p>X = None</p> <p>E = Test certificate provided (in English)</p> <p>F = Test certificate provided (in French)</p> <p>S = Test certificate provided (in Spanish)</p> <p>4 = Extended warranty, 4 years</p> <p>5 = Extended warranty, 5 years</p>																																						
<p><b>15: Front accessories</b></p> <table border="1"> <tr> <td>O = None</td> <td>T = RHE Variable depth mechanism emergency + early aux contact, opening</td> </tr> <tr> <td>A = Motor operator 24 V DC</td> <td>U = RHD Standard direct handle + early aux contact, closing</td> </tr> <tr> <td>B = Motor operator 48–60 V DC</td> <td>V = RHD Emergency direct handle + early aux contact, closing</td> </tr> <tr> <td>C = Motor operator 110–125 V AC/DC</td> <td>W = RHE Variable depth mechanism, standard + early aux contact, closing</td> </tr> <tr> <td>D = Motor operator 220–250 V AC/DC</td> <td>X = RHE Variable depth mechanism emergency + early aux contact, closing</td> </tr> <tr> <td>E = Motor operator 380–440 V AC</td> <td>Z = RHE Variable depth mechanism, emergency</td> </tr> <tr> <td>F = Motor operator 480–525 V AC</td> <td>9 = RHE Variable depth mechanism + 2 PLL</td> </tr> <tr> <td>G = PLL Fixed padlock device in open/closed position</td> <td>1 = Motor operator for use with Modbus 24 V DC – MOE-E fast opening</td> </tr> <tr> <td>H = PLL Fixed padlock device in open position</td> <td>2 = Motor operator for use with Modbus 48–60 V DC – MOE-E fast opening</td> </tr> <tr> <td>J = PLL Removable padlock device in open position (XT1, XT3)</td> <td>3 = Motor operator for use with Modbus 110–125 V AC/DC – MOE-E fast opening</td> </tr> <tr> <td>K = FLD Front for locking operating lever mechanism (XT2, XT4)</td> <td>4 = Motor operator for use with Modbus 220–250 V AC/DC – MOE-E fast opening</td> </tr> <tr> <td>L = RHD Standard direct handle</td> <td>5 = Motor operator for use with Modbus 380–440 V AC – MOE-E fast opening</td> </tr> <tr> <td>M = RHD Emergency direct handle</td> <td>6 = Motor operator for use with Modbus 480–525 V AC – MOE-E fast opening</td> </tr> <tr> <td>Y = RHD Standard direct handle + 2 PLL</td> <td></td> </tr> <tr> <td>N = RHE Variable depth mechanism, standard</td> <td></td> </tr> <tr> <td>P = RHE Variable depth mechanism emergency + 2 PLL</td> <td></td> </tr> <tr> <td>Q = RHD Normal direct handle + early Aux contact, opening</td> <td></td> </tr> <tr> <td>R = RHD Emergency direct handle + early Aux contact, opening</td> <td></td> </tr> <tr> <td>S = RHE Variable depth mechanism, standard + early aux contact, opening</td> <td></td> </tr> </table>			O = None	T = RHE Variable depth mechanism emergency + early aux contact, opening	A = Motor operator 24 V DC	U = RHD Standard direct handle + early aux contact, closing	B = Motor operator 48–60 V DC	V = RHD Emergency direct handle + early aux contact, closing	C = Motor operator 110–125 V AC/DC	W = RHE Variable depth mechanism, standard + early aux contact, closing	D = Motor operator 220–250 V AC/DC	X = RHE Variable depth mechanism emergency + early aux contact, closing	E = Motor operator 380–440 V AC	Z = RHE Variable depth mechanism, emergency	F = Motor operator 480–525 V AC	9 = RHE Variable depth mechanism + 2 PLL	G = PLL Fixed padlock device in open/closed position	1 = Motor operator for use with Modbus 24 V DC – MOE-E fast opening	H = PLL Fixed padlock device in open position	2 = Motor operator for use with Modbus 48–60 V DC – MOE-E fast opening	J = PLL Removable padlock device in open position (XT1, XT3)	3 = Motor operator for use with Modbus 110–125 V AC/DC – MOE-E fast opening	K = FLD Front for locking operating lever mechanism (XT2, XT4)	4 = Motor operator for use with Modbus 220–250 V AC/DC – MOE-E fast opening	L = RHD Standard direct handle	5 = Motor operator for use with Modbus 380–440 V AC – MOE-E fast opening	M = RHD Emergency direct handle	6 = Motor operator for use with Modbus 480–525 V AC – MOE-E fast opening	Y = RHD Standard direct handle + 2 PLL		N = RHE Variable depth mechanism, standard		P = RHE Variable depth mechanism emergency + 2 PLL		Q = RHD Normal direct handle + early Aux contact, opening		R = RHD Emergency direct handle + early Aux contact, opening		S = RHE Variable depth mechanism, standard + early aux contact, opening	
O = None	T = RHE Variable depth mechanism emergency + early aux contact, opening																																							
A = Motor operator 24 V DC	U = RHD Standard direct handle + early aux contact, closing																																							
B = Motor operator 48–60 V DC	V = RHD Emergency direct handle + early aux contact, closing																																							
C = Motor operator 110–125 V AC/DC	W = RHE Variable depth mechanism, standard + early aux contact, closing																																							
D = Motor operator 220–250 V AC/DC	X = RHE Variable depth mechanism emergency + early aux contact, closing																																							
E = Motor operator 380–440 V AC	Z = RHE Variable depth mechanism, emergency																																							
F = Motor operator 480–525 V AC	9 = RHE Variable depth mechanism + 2 PLL																																							
G = PLL Fixed padlock device in open/closed position	1 = Motor operator for use with Modbus 24 V DC – MOE-E fast opening																																							
H = PLL Fixed padlock device in open position	2 = Motor operator for use with Modbus 48–60 V DC – MOE-E fast opening																																							
J = PLL Removable padlock device in open position (XT1, XT3)	3 = Motor operator for use with Modbus 110–125 V AC/DC – MOE-E fast opening																																							
K = FLD Front for locking operating lever mechanism (XT2, XT4)	4 = Motor operator for use with Modbus 220–250 V AC/DC – MOE-E fast opening																																							
L = RHD Standard direct handle	5 = Motor operator for use with Modbus 380–440 V AC – MOE-E fast opening																																							
M = RHD Emergency direct handle	6 = Motor operator for use with Modbus 480–525 V AC – MOE-E fast opening																																							
Y = RHD Standard direct handle + 2 PLL																																								
N = RHE Variable depth mechanism, standard																																								
P = RHE Variable depth mechanism emergency + 2 PLL																																								
Q = RHD Normal direct handle + early Aux contact, opening																																								
R = RHD Emergency direct handle + early Aux contact, opening																																								
S = RHE Variable depth mechanism, standard + early aux contact, opening																																								

# Tmax XT7M

## U.S. Ordering Code construction

See page 6-80 for remaining descriptions



**1: Version**

XT7M

**2: Interrupting ratings<sup>1</sup>**

	S	H	L
UL kA @ 240V	65	100	200
UL kA @ 480V	50	65	100
UL kA @ 600V	25	50	65
IEC kA @ 415V	50	70	120

<sup>1</sup>For additional information, please refer to catalog 1SXU210248C0201 pages 2/2-2/14.

**3: Standard**

U = UL 80%  
 Q = UL 100%  
 E = IEC only

**4: Amp frame**

Digits	Amps
A (UL only)	= 600 A – 3-poles
B (UL only)	= 600 A – 4-poles
C	= 800 A – 3-poles
D	= 800 A – 4-poles
E	= 1000 A – 3-poles
F	= 1000 A – 4-poles
G	= 1200 A – 3-poles
H	= 1200 A – 4-poles
J (IEC only)	= 1250 A – 3-poles
K (IEC only)	= 1250 A – 4-poles
L (IEC only)	= 1600 A – 3-poles
M (IEC only)	= 1600 A – 4-poles

**5: Trip unit**

A = Ekip LS/I  
 B = Ekip LIG  
 C = Ekip LSI  
 D = Ekip LSIG  
 E = Ekip TOUCH LSI  
 F = Ekip TOUCH LSIG  
 G = Ekip TOUCH Measuring LSI  
 H = Ekip TOUCH Measuring LSIG  
 J = Ekip Hi-Touch LSI  
 L = Ekip Hi-Touch LSIG  
 M = Ekip M I  
 N = Ekip M TOUCH LRIU  
 P = Ekip G LS/I  
 Q = Ekip G Touch LSIG  
 R = Ekip G Hi-Touch LSIG  
 S = MCS

**6: Terminals (top + bottom)**

A = EF + F  
 B = EF + FC CuAl 4x4/0 AWG–500 kcmil  
 C = EF + FC CuAl 3x500–750 kcmil  
 D = F + EF  
 E = EF + EF  
 F = F + F  
 G = F + VR  
 H = HR + HR  
 J = F + HR  
 K = HR + VR  
 L = VR + HR  
 M = F + FC CuAl 4x4/0 AWG–500 kcmil  
 N = F + FC CuAl 3x500–750 kcmil  
 P = HR + FC CuAl 4x4/0 AWG–500 kcmil  
 Q = HR + FC CuAl 3x500–750 kcmil  
 R = VR + FC CuAl 4x4/0 AWG–500 kcmil  
 S = ES + ES  
 T = ES + FC CuAl 4x4/0 AWG–500 kcmil  
 U = ES + FC CuAl 3x500–750 kcmil  
 V = VR + VR  
 W = Withdrawable KIT  
 X = VR + FC CuAl 3x500–750 kcmil  
 Y = FC CuAl 4x4/0 AWG–500 kcmil + EF  
 Z = FC CuAl 4x4/0 AWG–500 kcmil + ES  
 0 = FC CuAl 4x4/0 AWG–500 kcmil + F  
 1 = FC CuAl 4x4/0 AWG–500 kcmil + HR  
 2 = FC CuAl 4x4/0 AWG–500 kcmil + VR  
 3 = FC CuAl 3x500–750 kcmil + EF  
 4 = FC CuAl 3x500–750 kcmil + ES  
 5 = FC CuAl 4x4/0 AWG–500 kcmil + FC CuAl 4x4/0 AWG–500 kcmil  
 6 = FC CuAl 3x500–750 kcmil + F  
 7 = FC CuAl 3x500–750 kcmil + FC CuAl 3x500–750 kcmil  
 8 = FC CuAl 3x500–750 kcmil + HR  
 9 = FC CuAl 3x500–750 kcmil + VR

**7: Motor / MOC / actuator / S33M**

A = None	R = COM Actuator + M 220–250 V AC/DC
B = M 24–30 V AC/DC	S = COM Actuator + M 380–415 V AC/DC
C = M 48–60 V AC/DC	T = COM Actuator + M 24–30 V AC/DC + MOC
D = M 100–130 V AC/DC	U = COM Actuator + M 48–60 V AC/DC + MOC
E = M 220–250 V AC/DC	V = COM Actuator + M 100–130 V AC/DC + MOC
F = M 380–415 V AC/DC	W = COM Actuator + M 220–250 V AC/DC + MOC
G = MOC	X = COM Actuator + M 380–415 V AC/DC + MOC
H = MOC + M 24–30 V AC/DC	Y = M 24–30 V AC/DC + AUX S33 M/2 24V
J = MOC + M 48–60 V AC/DC	Z = M 220–250 V AC/DC + AUX S33 M/2 250V
K = MOC + M 100–130 V AC/DC	0 = MOC + M 24–30 V AC/DC + AUX S33 M/2 24V
L = MOC + M 220–250 V AC/DC	1 = MOC + M 220–250 V AC/DC + AUX S33 M/2 250V
M = MOC + M 380–415 V AC/DC	2 = COM Actuator + M 24–30 V AC/DC + AUX S33 M/2 24V
N = COM Actuator + M 24–30 V AC/DC	3 = COM Actuator + M 220–250 V AC/DC + AUX S33 M/2 250V
P = COM Actuator + M 48–60 V AC/DC	4 = COM Actuator + M 24–30 V AC/DC + MOC + AUX S33 M/2 24V
Q = COM Actuator + M 100–130 V AC/DC	5 = COM Actuator + M 220–250 V AC/DC + MOC + AUX S33 M/2 250V

# Tmax XT7M

## U.S. Ordering Code construction

See page 6-80 for remaining descriptions



### 8 & 9: Ekip supply / COMs / signalling 24-48 V DC

ZZ = None
AB = Ekip Supply 24-48 V DC - Stand Alone
AC = 1 x Ekip Signalling 2k
AD = 2 x Ekip Signalling 2k
AE = Ekip COM Modbus RTU Tmax XT
AF = Ekip COM Modbus TCP Tmax XT
AG = Ekip COM Profibus Tmax XT
AH = Ekip COM Profinet Tmax XT
AJ = Ekip COM Devicenet Tmax XT
AK = Ekip COM Ethernet/IP Tmax XT
AL = Ekip COM IEC61850 Tmax XT
AM = Ekip Link Tmax XT
AN = Ekip COM Hub Tmax XT
AP = Ekip Synchrocheck
AQ = Ekip CI
AR = 1 x Ekip signalling 3T-1 AI - Temp PT1000
AS = 2 x Ekip signalling 3T-1 AI - Temp PT1000
TA = Ekip Supply 110-240 V AC/DC - stand alone
TB = 1 x Ekip signalling 2k
TC = 2 x Ekip signalling 2k
TD = Ekip COM Modbus RTU Tmax XT
TE = Ekip COM Modbus TCP Tmax XT
TF = Ekip COM Profibus Tmax XT
TG = Ekip COM Profinet Tmax XT
TH = Ekip COM Devicenet Tmax XT
TJ = Ekip COM Ethernet/IP Tmax XT
TK = Ekip COM IEC61850 Tmax XT
TL = Ekip Link Tmax XT
TM = Ekip COM Hub Tmax XT
TN = Ekip Synchrocheck
TP = Ekip CI
TQ = 1 x Ekip signalling 3T-1 AI - Temp PT1000
TR = 2 x Ekip signalling 3T-1 AI - Temp PT1000

### 10: AUX / RTC

A = None
B = AUX 4Q 400 V
C = AUX 4Q 24 V DC
D = AUX 2Q 400 V AC + 2Q 24 V DC
E = AUX S51 250 V
F = AUX S51 24 V
G = RTC 250 V
H = RTC 24 V
J = AUX 4Q 400 V + AUX S51 250 V
K = AUX 4Q 400 V + AUX S51 24 V
L = AUX 4Q 24 V DC + AUX S51 250 V
M = AUX 4Q 24 V DC + AUX S51 24 V
N = AUX 4Q 400 V + AUX S51 250 V + RTC 250 V
P = AUX 4Q 400 V + AUX S51 24 V + RTC 250 V
Q = AUX 4Q 24 V DC + AUX S51 250 V + RTC 250 V
R = AUX 4Q 24 V DC + AUX S51 24 V + RTC 250 V
S = AUX 4Q 400 V + AUX S51 250 V + RTC 24 V
T = AUX 4Q 400 V + AUX S51 24 V + RTC 24 V
U = AUX 4Q 24 V DC + AUX S51 250 V + RTC 24 V
V = AUX 4Q 24 V DC + AUX S51 24 V + RTC 24 V
W = AUX 4Q 400 V + RTC 250 V
X = AUX 4Q 24 V DC + RTC 250 V
Y = AUX S51 24 V + RTC 250 V
Z = AUX S51 250 V + RTC 250 V
0 = AUX 4Q 400 V + RTC 24 V
1 = AUX 4Q 24 V DC + RTC 24 V
2 = AUX S51 24 V + RTC 24 V
3 = AUX S51 250 V + RTC 24 V

### 11: YC / YR

A = None
B = YC 24 V AC/DC (XT7M)
C = YC 30 V AC/DC (XT7M)
D = YC 48 V AC/DC (XT7M)
E = YC 60 V AC/DC (XT7M)
F = YC 110-120 V AC/DC (XT7M)
G = YC 120-127 V AC/DC (XT7M)
H = YC 220-240 V AC/DC (XT7M)
J = YC 240-250 V AC/DC (XT7M)
K = YC 380-400 V AC (XT7M)
L = YC 415-440 V AC (XT7M)
M = YC 480-500 V AC (XT7M)
P = YR 24 V DC
Q = YR 110 V AC/DC
R = YR 220 V AC/DC
S = YC 24 V AC/DC + YR 24 V DC (XT7M)
T = YC 110-120 V AC/DC + YR 110 V AC/DC (XT7M)
U = YC 220-240 V AC/DC + YR 220 V AC/DC (XT7M)

### 12: YO / RTC Ekip

A = None
B = YO 24 V AC/DC (XT7M)
C = YO 30 V AC/DC (XT7M)
D = YO 48 V AC/DC (XT7M)
E = YO 60 V AC/DC
F = YO 110-120 V AC/DC (XT7M)
G = YO 120-127 V AC/DC (XT7M)
H = YO 220-240 V AC/DC (XT7M)
J = YO 240-250 V AC/DC (XT7M)
K = YO 380-400 V AC (XT7M)
L = YO 415-440 V AC (XT7M)
M = YO 480-500 V AC
P = RTC Ekip 24 V
Q = YO 24 V AC/DC + RTC Ekip 24 V (XT7M)
R = YO 30 V AC/DC + RTC Ekip 24 V (XT7M)
S = YO 48 V AC/DC + RTC Ekip 24 V (XT7M)
T = YO 60 V AC/DC + RTC Ekip 24 V (XT7M)
U = YO 110-120 V AC/DC + RTC Ekip 24 V (XT7M)
V = YO 120-127 V AC/DC + RTC Ekip 24 V (XT7M)
W = YO 220-240 V AC/DC + RTC Ekip 24 V (XT7M)
X = YO 240-250 V AC/DC + RTC Ekip 24 V (XT7M)
Y = YO 380-400 V AC + RTC Ekip 24 V (XT7M)
Z = YO 415-440 V AC + RTC Ekip 24 V (XT7M)
0 = YO 480-500 V AC + RTC Ekip 24 V (XT7M)

### 13: YU / YO2

A = None	P = YO 24 V AC/DC (XT7M)
B = YU 24 V AC/DC (XT7M)	Q = YO 30 V AC/DC (XT7M)
C = YU 30 V AC/DC (XT7M)	R = YO 48 V AC/DC (XT7M)
D = YU 48 V AC/DC (XT7M)	S = YO 60 V AC/DC (XT7M)
E = YU 60 V AC/DC (XT7M)	T = YO 110-120 V AC/DC (XT7M)
F = YU 110-120 V AC/DC (XT7M)	U = YO 120-127 V AC/DC (XT7M)
G = YU 120-127 V AC/DC (XT7M)	V = YO 220-240 V AC/DC (XT7M)
H = YU 220-240 V AC/DC (XT7M)	W = YO 240-250 V AC/DC (XT7M)
J = YU 240-250 V AC/DC (XT7M)	X = YO 380-400 V AC (XT7M)
K = YU 380-400 V AC (XT7M)	Y = YO 415-440 V AC (XT7M)
L = YU 415-440 V AC (XT7M)	Z = YO 480-500 V AC (XT7M)
M = YU 480-500 V AC (XT7M)	

# Tmax XT7M

## U.S. Ordering Code construction (cont.)



**14: KLC / PLC / PBC**

0 = None	T = KLC-A Ronis 1104 – STI key lock open + PLC padlocks in open position D = 8 mm
A = KLC-D Key lock open XT7M	U = KLC-D Key lock open XT7M + PBC prot. pushbuttons AP/CH
B = KLC-S Key lock open N.20005 XT7M	V = KLC-S Key lock open N.20005 XT7M + PBC prot. pushbuttons AP/CH
C = KLC-A Key lock open Kirk XT7M	W = KLC-A Key lock open Kirk XT7M + PBC prot. pushbuttons AP/CH
D = KLC-A Castell key lock open	X = KLC-A Castell key lock open + PBC prot. pushbuttons AP/CH
E = KLC-A Ronis 1104 – STI key lock open	Y = KLC-A Ronis 1104 – STI key lock open + PBC prot. pushbuttons AP/CH
F = PLC Padlocks in open position D = 4 mm	Z = KLC-D Key lock open XT7M + PBC prot. pushbuttons AP/CH D = 4 mm
G = PLC Padlocks in open position D = 8 mm	1 = KLC-S Key lock open N.20005 XT7M + PBC prot. pushbuttons AP/CH D = 4 mm
H = PBC Prot. pushbuttons AP/CH	2 = KLC-A Key lock open Kirk XT7M + PBC prot. pushbuttons AP/CH D = 4 mm
I = PBC Prot. pushbuttons AP/CH D = 4 mm	3 = KLC-A Castell key lock open + PBC prot. pushbuttons AP/CH D = 4 mm
J = PBC Prot. pushbuttons AP/CH D = 8 mm	4 = KLC-A Ronis 1104 – STI key lock open + PBC prot. pushbuttons AP/CH D = 4 mm
K = KLC-D Key lock open XT7M + PLC Padlocks in open position D = 4 mm	5 = KLC-D Key lock open XT7M + PBC prot. pushbuttons AP/CH D = 8 mm
L = KLC-S Key lock open N.20005 XT7M + PLC padlocks in open position D = 4 mm	6 = KLC-S Key lock open N.20005 XT7M + PBC prot. pushbuttons AP/CH D = 8 mm
M = KLC-A Key lock open Kirk XT7M + PLC padlocks in open position D = 4 mm	7 = KLC-A Key lock open Kirk XT7M + PBC prot. pushbuttons AP/CH D = 8 mm
N = KLC-A Castell key lock open + PLC padlocks in open position D = 4 mm	8 = KLC-A Castell key lock open + PBC prot. pushbuttons AP/CH D = 8 mm
O = KLC-A Ronis 1104 – STI key lock open + PLC padlocks in open position D = 4 mm	9 = KLC-A Ronis 1104 – STI key lock open + PBC prot. pushbuttons AP/CH D = 8 mm
P = KLC-D Key lock open XT7M + PLC padlocks in open position D = 8 mm	
Q = KLC-S Key lock open N.20005 XT7M + PLC padlocks in open position D = 8 mm	
R = KLC-A Key lock open Kirk XT7M + PLC padlocks in open position D = 8 mm	
S = KLC-A Castell key lock open + PLC padlocks in open position D = 8 mm	

**15: Future usage**

0 = None
----------

**16: Advanced functionality**

0 = None
A = Class 1 power & energy metering
G = Measuring
H = Voltages protection
J = Frequency protection
K = Power protection
L = Adaptive protection
M = Datalogger
N = Network analyzer
P = Voltages protection advanced
Q = Rocof protection
R = Ekip power controller
S = ATS main-tie-main closed license
T = ATS main-tie-main open license
U = ATS main-main closed license
V = ATS main-main open license
W = Synchro reclosing
X = IPS – interface protection system
Y = Load shedding – predictive
Z = Load shedding – adaptive

**17: Additional certifications / extra**

0 = None
A = Test certificate provided (in English)
B = Test certificate provided (in French)
C = Test certificate provided (in Spanish)
E = Extended warranty, 4 years
F = Extended warranty, 5 years

**18: Future usage**

0 = None
----------



## Ordering codes for Tmax XT1

Circuit breakers



Tmax XT1 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT1, 125A Frame, Thermal Magnetic-Fixed Protection (TMF), Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
15	XT1N■◆015AFF000XXX	XT1S■◆015AFF000XXX	XT1H■◆015AFF000XXX
20	XT1N■◆020AFF000XXX	XT1S■◆020AFF000XXX	XT1H■◆020AFF000XXX
25	XT1N■◆025AFF000XXX	XT1S■◆025AFF000XXX	XT1H■◆025AFF000XXX
30	XT1N■◆030AFF000XXX	XT1S■◆030AFF000XXX	XT1H■◆030AFF000XXX
35	XT1N■◆035AFF000XXX	XT1S■◆035AFF000XXX	XT1H■◆035AFF000XXX
40	XT1N■◆040AFF000XXX	XT1S■◆040AFF000XXX	XT1H■◆040AFF000XXX
45	XT1N■◆045AFF000XXX	XT1S■◆045AFF000XXX	XT1H■◆045AFF000XXX
50	XT1N■◆050AFF000XXX	XT1S■◆050AFF000XXX	XT1H■◆050AFF000XXX
60	XT1N■◆060AFF000XXX	XT1S■◆060AFF000XXX	XT1H■◆060AFF000XXX
70	XT1N■◆070AFF000XXX	XT1S■◆070AFF000XXX	XT1H■◆070AFF000XXX
80	XT1N■◆080AFF000XXX	XT1S■◆080AFF000XXX	XT1H■◆080AFF000XXX
90	XT1N■◆090AFF000XXX	XT1S■◆090AFF000XXX	XT1H■◆090AFF000XXX
100	XT1N■◆100AFF000XXX	XT1S■◆100AFF000XXX	XT1H■◆100AFF000XXX
110	XT1NU◆110AFF000XXX	XT1SU◆110AFF000XXX	XT1HU◆110AFF000XXX
125	XT1NU◆125AFF000XXX	XT1SU◆125AFF000XXX	XT1HU◆125AFF000XXX

■ U for UL 80% rated or Q for 100% rated  
 ◆ 3 for 3-pole or 4 for 4-pole

### Motor protection circuit breaker (MPCB)

#### Tmax XT1 125A Frame MA trip unit front terminals

Amps	H (65kA)	H (65kA)
	80% Rated	100% Rated
	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code
3	XT1HU3003MFF000XXX	XT1HQ3003MFF000XXX
7	XT1HU3007MFF000XXX	XT1HQ3007MFF000XXX
15	XT1HU3015MFF000XXX	XT1HQ3015MFF000XXX
30	XT1HU3030MFF000XXX	XT1HQ3030MFF000XXX
50	XT1HU3050MFF000XXX	XT1HQ3050MFF000XXX
70	XT1HU3070MFF000XXX	XT1HQ3070MFF000XXX
80	XT1HU3080MFF000XXX	XT1HQ3080MFF000XXX
100	XT1HU3100MFF000XXX	XT1HQ3100MFF000XXX
125	XT1HU3125MFF000XXX	-

### Molded case switches

#### Tmax XT XT1D, 125A Frame MCS

Type	kA	3-pole	4-pole
		U.S. Ordering Code	U.S. Ordering Code
XT1N-D 125	25	XT1NU3125DFF000XXX	XT1NU4125DFF000XXX
XT1S-D 125	35	XT1SU3125DFF000XXX	XT1SU4125DFF000XXX
XT1H-D 125	65	XT1HU3125DFF000XXX	XT1HU4125DFF000XXX

## Ordering codes for Tmax XT2

### Circuit breakers



Tmax XT2 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT2, 125A Frame, Thermal Magnetic-Fixed (TMF) and Adjustable (TMA) Protection with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Thermal Magnetic-Fixed (TMF)</b>			
15	XT2N■◆015AFF000XXX	XT2S■◆015AFF000XXX	XT2H■◆015AFF000XXX
20	XT2N■◆020AFF000XXX	XT2S■◆020AFF000XXX	XT2H■◆020AFF000XXX
25	XT2N■◆025AFF000XXX	XT2S■◆025AFF000XXX	XT2H■◆025AFF000XXX
30	XT2N■◆030AFF000XXX	XT2S■◆030AFF000XXX	XT2H■◆030AFF000XXX
35	XT2N■◆035AFF000XXX	XT2S■◆035AFF000XXX	XT2H■◆035AFF000XXX
40	XT2N■◆040AFF000XXX	XT2S■◆040AFF000XXX	XT2H■◆040AFF000XXX
50	XT2N■◆050AFF000XXX	XT2S■◆050AFF000XXX	XT2H■◆050AFF000XXX
60	XT2N■◆060AFF000XXX	XT2S■◆060AFF000XXX	XT2H■◆060AFF000XXX
70	XT2N■◆070AFF000XXX	XT2S■◆070AFF000XXX	XT2H■◆070AFF000XXX
<b>Thermal Magnetic-Adjustable (TMA)</b>			
80	XT2N■◆080BFF000XXX	XT2S■◆080BFF000XXX	XT2H■◆080BFF000XXX
90	XT2N■◆090BFF000XXX	XT2S■◆090BFF000XXX	XT2H■◆090BFF000XXX
100	XT2N■◆100BFF000XXX	XT2S■◆100BFF000XXX	XT2H■◆100BFF000XXX
110	XT2NU◆110BFF000XXX	XT2SU◆110BFF000XXX	XT2HU◆110BFF000XXX
125	XT2NU◆125BFF000XXX	XT2SU◆125BFF000XXX	XT2HU◆125BFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT2, 125A Frame, Thermal Magnetic-Fixed (TMF) and Adjustable (TMA) Protection with Front Terminals

Amps	V (150kA)	X (200kA)	X (200kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Thermal Magnetic-Fixed (TMF)</b>			
15	XT2L■◆015AFF000XXX	XT2V■◆015AFF000XXX	XT2X■◆015AFF000XXX
20	XT2L■◆020AFF000XXX	XT2V■◆020AFF000XXX	XT2X■◆020AFF000XXX
25	XT2L■◆025AFF000XXX	XT2V■◆025AFF000XXX	XT2X■◆025AFF000XXX
30	XT2L■◆030AFF000XXX	XT2V■◆030AFF000XXX	XT2X■◆030AFF000XXX
35	XT2L■◆035AFF000XXX	XT2V■◆035AFF000XXX	XT2X■◆035AFF000XXX
40	XT2L■◆040AFF000XXX	XT2V■◆040AFF000XXX	XT2X■◆040AFF000XXX
50	XT2L■◆050AFF000XXX	XT2V■◆050AFF000XXX	XT2X■◆050AFF000XXX
60	XT2L■◆060AFF000XXX	XT2V■◆060AFF000XXX	XT2X■◆060AFF000XXX
70	XT2L■◆070AFF000XXX	XT2V■◆070AFF000XXX	XT2X■◆070AFF000XXX
<b>Thermal Magnetic-Adjustable (TMA)</b>			
80	XT2L■◆080BFF000XXX	XT2V■◆080BFF000XXX	XT2X■◆080BFF000XXX
90	XT2L■◆090BFF000XXX	XT2V■◆090BFF000XXX	XT2X■◆090BFF000XXX
100	XT2L■◆100BFF000XXX	XT2V■◆100BFF000XXX	XT2X■◆100BFF000XXX
110	XT2LU◆110BFF000XXX	XT2VU◆110BFF000XXX	XT2XU◆110BFF000XXX
125	XT2LU◆125BFF000XXX	XT2VU◆125BFF000XXX	XT2XU◆125BFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT2

Circuit breakers



Tmax XT2 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT2, 125A Frame, Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>			
10	XT2N■◆010EFF000XXX	XT2S■◆010EFF000XXX	XT2H■◆010EFF000XXX
25	XT2N■◆025EFF000XXX	XT2S■◆025EFF000XXX	XT2H■◆025EFF000XXX
60	XT2N■◆060EFF000XXX	XT2S■◆060EFF000XXX	XT2H■◆060EFF000XXX
100	XT2N■◆100EFF000XXX	XT2S■◆100EFF000XXX	XT2H■◆100EFF000XXX
125	XT2N■◆125EFF000XXX	XT2S■◆125EFF000XXX	XT2H■◆125EFF000XXX
<b>Ekip DIP LSI</b>			
10	XT2N■◆010FFF000XXX	XT2S■◆010FFF000XXX	XT2H■◆010FFF000XXX
25	XT2N■◆025FFF000XXX	XT2S■◆025FFF000XXX	XT2H■◆025FFF000XXX
60	XT2N■◆060FFF000XXX	XT2S■◆060FFF000XXX	XT2H■◆060FFF000XXX
100	XT2N■◆100FFF000XXX	XT2S■◆100FFF000XXX	XT2H■◆100FFF000XXX
125	XT2N■◆125FFF000XXX	XT2S■◆125FFF000XXX	XT2H■◆125FFF000XXX
<b>Ekip DIP LSIG</b>			
10	XT2N■◆010GFF000XXX	XT2S■◆010GFF000XXX	XT2H■◆010GFF000XXX
25	XT2N■◆025GFF000XXX	XT2S■◆025GFF000XXX	XT2H■◆025GFF000XXX
60	XT2N■◆060GFF000XXX	XT2S■◆060GFF000XXX	XT2H■◆060GFF000XXX
100	XT2N■◆100GFF000XXX	XT2S■◆100GFF000XXX	XT2H■◆100GFF000XXX
125	XT2N■◆125GFF000XXX	XT2S■◆125GFF000XXX	XT2H■◆125GFF000XXX
<b>Ekip DIP LIG</b>			
10	XT2N■◆010CFF000XXX	XT2S■◆010CFF000XXX	XT2H■◆010CFF000XXX
25	XT2N■◆025CFF000XXX	XT2S■◆025CFF000XXX	XT2H■◆025CFF000XXX
60	XT2N■◆060CFF000XXX	XT2S■◆060CFF000XXX	XT2H■◆060CFF000XXX
100	XT2N■◆100CFF000XXX	XT2S■◆100CFF000XXX	XT2H■◆100CFF000XXX
125	XT2N■◆125CFF000XXX	XT2S■◆125CFF000XXX	XT2H■◆125CFF000XXX

■ U for UL 80% rated or Q for 100% rated  
 ◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT2, 125A Frame, Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)
	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>		
10	XT2L■◆010EFF000XXX	XT2V■◆010EFF000XXX
25	XT2L■◆025EFF000XXX	XT2V■◆025EFF000XXX
60	XT2L■◆060EFF000XXX	XT2V■◆060EFF000XXX
100	XT2L■◆100EFF000XXX	XT2V■◆100EFF000XXX
125	XT2L■◆125EFF000XXX	XT2V■◆125EFF000XXX
<b>Ekip DIP LSI</b>		
10	XT2L■◆010FFF000XXX	XT2V■◆010FFF000XXX
25	XT2L■◆025FFF000XXX	XT2V■◆025FFF000XXX
60	XT2L■◆060FFF000XXX	XT2V■◆060FFF000XXX
100	XT2L■◆100FFF000XXX	XT2V■◆100FFF000XXX
125	XT2L■◆125FFF000XXX	XT2V■◆125FFF000XXX
<b>Ekip DIP LSIG</b>		
10	XT2L■◆010GFF000XXX	XT2V■◆010GFF000XXX
25	XT2L■◆025GFF000XXX	XT2V■◆025GFF000XXX
60	XT2L■◆060GFF000XXX	XT2V■◆060GFF000XXX
100	XT2L■◆100GFF000XXX	XT2V■◆100GFF000XXX
125	XT2L■◆125GFF000XXX	XT2V■◆125GFF000XXX
<b>Ekip DIP LIG</b>		
10	-	-
25	-	-
60	XT2L■◆060CFF000XXX	XT2V■◆060CFF000XXX
100	XT2L■◆100CFF000XXX	XT2V■◆100CFF000XXX
125	XT2L■◆125CFF000XXX	XT2V■◆125CFF000XXX

■ U for UL 80% rated or Q for 100% rated  
 ◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT2

### Circuit breakers



Tmax XT2 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT2, 125A Frame, Ekip TOUCH LSI and LSIg, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>			
40	XT2N■◆040PFF000XXX	XT2S■◆040PFF000XXX	XT2H■◆040PFF000XXX
60	XT2N■◆060PFF000XXX	XT2S■◆060PFF000XXX	XT2H■◆060PFF000XXX
100	XT2N■◆100PFF000XXX	XT2S■◆100PFF000XXX	XT2H■◆100PFF000XXX
125	XT2N■◆125PFF000XXX	XT2S■◆125PFF000XXX	XT2H■◆125PFF000XXX
<b>Ekip TOUCH LSIg</b>			
40	XT2N■◆040QFF000XXX	XT2S■◆040QFF000XXX	XT2H■◆040QFF000XXX
60	XT2N■◆060QFF000XXX	XT2S■◆060QFF000XXX	XT2H■◆060QFF000XXX
100	XT2N■◆100QFF000XXX	XT2S■◆100QFF000XXX	XT2H■◆100QFF000XXX
125	XT2N■◆125QFF000XXX	XT2S■◆125QFF000XXX	XT2H■◆125QFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT2, 125A Frame, Ekip TOUCH LSI and LSIg, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)
	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>		
40	XT2L■◆040PFF000XXX	XT2V■◆040PFF000XXX
60	XT2L■◆060PFF000XXX	XT2V■◆060PFF000XXX
100	XT2L■◆100PFF000XXX	XT2V■◆100PFF000XXX
125	XT2L■◆125PFF000XXX	XT2V■◆125PFF000XXX
<b>Ekip TOUCH LSIg</b>		
40	XT2L■◆040QFF000XXX	XT2V■◆040QFF000XXX
60	XT2L■◆060QFF000XXX	XT2V■◆060QFF000XXX
100	XT2L■◆100QFF000XXX	XT2V■◆100QFF000XXX
125	XT2L■◆125QFF000XXX	XT2V■◆125QFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT2 Circuit breakers



Tmax XT2 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT2, 125A Frame, Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
40	XT2N■◆040RFF000XXX	XT2S■◆040RFF000XXX	XT2H■◆040RFF000XXX
60	XT2N■◆060RFF000XXX	XT2S■◆060RFF000XXX	XT2H■◆060RFF000XXX
100	XT2N■◆100RFF000XXX	XT2S■◆100RFF000XXX	XT2H■◆100RFF000XXX
125	XT2N■◆125RFF000XXX	XT2S■◆125RFF000XXX	XT2H■◆125RFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>			
40	XT2N■◆040SFF000XXX	XT2S■◆040SFF000XXX	XT2H■◆040SFF000XXX
60	XT2N■◆060SFF000XXX	XT2S■◆060SFF000XXX	XT2H■◆060SFF000XXX
100	XT2N■◆100SFF000XXX	XT2S■◆100SFF000XXX	XT2H■◆100SFF000XXX
125	XT2N■◆125SFF000XXX	XT2S■◆125SFF000XXX	XT2H■◆125SFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT2, 125A Frame, Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)
	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>		
40	XT2L■◆040RFF000XXX	XT2V■◆040RFF000XXX
60	XT2L■◆060RFF000XXX	XT2V■◆060RFF000XXX
100	XT2L■◆100RFF000XXX	XT2V■◆100RFF000XXX
125	XT2L■◆125RFF000XXX	XT2V■◆125RFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>		
40	XT2L■◆040SFF000XXX	XT2V■◆040SFF000XXX
60	XT2L■◆060SFF000XXX	XT2V■◆060SFF000XXX
100	XT2L■◆100SFF000XXX	XT2V■◆100SFF000XXX
125	XT2L■◆125SFF000XXX	XT2V■◆125SFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT2

### Circuit breakers



Tmax XT2 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT2, 125A Frame, Ekip HI-TOUCH LSI and LSIg, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
40	XT2N■◆040TFF000XXX	XT2S■◆040TFF000XXX	XT2H■◆040TFF000XXX
60	XT2N■◆060TFF000XXX	XT2S■◆060TFF000XXX	XT2H■◆060TFF000XXX
100	XT2N■◆100TFF000XXX	XT2S■◆100TFF000XXX	XT2H■◆100TFF000XXX
125	XT2N■◆125TFF000XXX	XT2S■◆125TFF000XXX	XT2H■◆125TFF000XXX
<b>Ekip HI-TOUCH LSIg</b>			
40	XT2N■◆040UFF000XXX	XT2S■◆040UFF000XXX	XT2H■◆040UFF000XXX
60	XT2N■◆060UFF000XXX	XT2S■◆060UFF000XXX	XT2H■◆060UFF000XXX
100	XT2N■◆100UFF000XXX	XT2S■◆100UFF000XXX	XT2H■◆100UFF000XXX
125	XT2N■◆125UFF000XXX	XT2S■◆125UFF000XXX	XT2H■◆125UFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT2, 125A Frame, Ekip HI-TOUCH LSI and LSIg, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)
	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>		
40	XT2L■◆040TFF000XXX	XT2V■◆040TFF000XXX
60	XT2L■◆060TFF000XXX	XT2V■◆060TFF000XXX
100	XT2L■◆100TFF000XXX	XT2V■◆100TFF000XXX
125	XT2L■◆125TFF000XXX	XT2V■◆125TFF000XXX
<b>Ekip HI-TOUCH LSIg</b>		
40	XT2L■◆040UFF000XXX	XT2V■◆040UFF000XXX
60	XT2L■◆060UFF000XXX	XT2V■◆060UFF000XXX
100	XT2L■◆100UFF000XXX	XT2V■◆100UFF000XXX
125	XT2L■◆125UFF000XXX	XT2V■◆125UFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT2 Circuit breakers



Tmax XT2 – circuit breaker

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT2 Ekip M Touch LRIU front terminals (F)

Amps	H (65kA)	
	80% or 100% Rated	
	3-pole	
	U.S. Ordering Code	
40	XT2H■3040WFF000XXX	
60	XT2H■3060WFF000XXX	
100	XT2H■3100WFF000XXX	
125	XT2HQ3125WFF000XXX	

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT2 Ekip M Touch LRIU front terminals (F)

Amps	L (100kA)		V (150kA)	
	80% or 100% Rated		80% or 100% Rated	
	3-pole		3-pole	
	U.S. Ordering Code		U.S. Ordering Code	
40	XT2L■3040WFF000XXX	XT2V■3040WFF000XXX		
60	XT2L■3060WFF000XXX	XT2V■3060WFF000XXX		
100	XT2L■3100WFF000XXX	XT2V■3100WFF000XXX		
125	XT2LQ3125WFF000XXX	XT2VQ3125WFF000XXX		

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT2 Ekip M-LIU trip units front terminals (F)

Amps	H (65kA)		L (100kA)		V (150kA)	
	80% or 100% Rated		80% or 100% Rated		80% or 100% Rated	
	3-pole		3-pole		3-pole	
	U.S. Ordering Code		U.S. Ordering Code		U.S. Ordering Code	
25	XT2H■3025LFF000XXX	XT2L■3025LFF000XXX	XT2V■3025LFF000XXX			
60	XT2H■3060LFF000XXX	XT2L■3060LFF000XXX	XT2V■3060LFF000XXX			
100	XT2H■3100LFF000XXX	XT2L■3100LFF000XXX	XT2V■3100LFF000XXX			

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT2

### Circuit breakers



Tmax XT2 – circuit breaker

### Motor circuit protector (MCP)

#### Tmax XT, XT2 125A Frame MA trip unit front terminals (F)

Amps	H (65kA)	L (100kA)
	80% Rated	80% Rated
	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code
3	XT2HU3003MFF000XXX	XT2LU3003MFF000XXX
7	XT2HU3007MFF000XXX	XT2LU3007MFF000XXX
15	XT2HU3015MFF000XXX	XT2LU3015MFF000XXX
30	XT2HU3030MFF000XXX	XT2LU3030MFF000XXX
50	XT2HU3050MFF000XXX	XT2LU3050MFF000XXX
70	XT2HU3070MFF000XXX	XT2LU3070MFF000XXX
80	XT2HU3080MFF000XXX	XT2LU3080MFF000XXX
100	XT2HU3100MFF000XXX	XT2LU3100MFF000XXX
125	XT2HU3125MFF000XXX	XT2LU3125MFF000XXX

#### Tmax XT, XT2 125A Frame Ekip I trip unit front terminals (F)

Amps	H (65kA)	L (100kA)	V (150kA)
	3-pole	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
	10	XT2HU3010JFF000XXX	XT2LU3010JFF000XXX
25	XT2HU3025JFF000XXX	XT2LU3025JFF000XXX	XT2VU3025JFF000XXX
60	XT2HU3060JFF000XXX	XT2LU3060JFF000XXX	XT2VU3060JFF000XXX
100	XT2HU3100JFF000XXX	XT2LU3100JFF000XXX	XT2VU3100JFF000XXX
125	XT2HU3125JFF000XXX	XT2LU3125JFF000XXX	XT2VU3125JFF000XXX

### Molded case switches

#### Tmax XT XT2D, 125A Frame MCS

lu	Type	3-pole	4-pole
		U.S. Ordering Code	U.S. Ordering Code
25	XT2N-D	XT2NU3125DFF000XXX	XT2NU4125DFF000XXX
65	XT2H-D	XT2HU3125DFF000XXX	XT2HU4125DFF000XXX
100	XT2L-D	XT2LU3125DFF000XXX	XT2LU4125DFF000XXX
200	XT2V-D	XT2VU3125DFF000XXX	XT2VU4125DFF000XXX



## Ordering codes for Tmax XT3

### Circuit breakers



Tmax XT3 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT3, 225A Frame, Thermal Magnetic-Fixed (TMF) Protection with Front Terminals

Amps	N (25kA)	S (35kA)
	U.S. Ordering Code	U.S. Ordering Code
60	XT3N■◆060AFF000XXX	XT3S■◆060AFF000XXX
70	XT3N■◆070AFF000XXX	XT3S■◆070AFF000XXX
80	XT3N■◆080AFF000XXX	XT3S■◆080AFF000XXX
90	XT3N■◆090AFF000XXX	XT3S■◆090AFF000XXX
100	XT3N■◆100AFF000XXX	XT3S■◆100AFF000XXX
110	XT3N■◆110AFF000XXX	XT3S■◆110AFF000XXX
125	XT3N■◆125AFF000XXX	XT3S■◆125AFF000XXX
150	XT3N■◆150AFF000XXX	XT3S■◆150AFF000XXX
175	XT3N■◆175AFF000XXX	XT3S■◆175AFF000XXX
200	XT3N■◆200AFF000XXX	XT3S■◆200AFF000XXX
225	XT3N■◆225AFF000XXX	XT3S■◆225AFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

### Motor circuit protector (MCP)

#### Tmax XT, XT3, 225A Frame, MA trip unit with Front Terminals (F)

Amps	S (35kA)
	3-pole
	U.S. Ordering Code
100	XT3SU3100MFF000XXX
110	XT3SU3110MFF000XXX
125	XT3SU3125MFF000XXX
150	XT3SU3150MFF000XXX
200	XT3SU3200MFF000XXX

### Molded case switches

#### Tmax XT XT3D, 225A Frame MCS

Iu	Type	3-pole	4-pole
		U.S. Ordering Code	U.S. Ordering Code
25	XT2N-D	XT3NU3225DFF000XXX	XT3NU4225DFF000XXX
35	XT2S-D	XT3SU3225DFF000XXX	XT3SU4225DFF000XXX

## Ordering codes for Tmax XT4 Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Thermal Magnetic-Fixed (TMF) and Adjustable (TMA) Protection with Front Terminals

Amps	N (25kA)		S (35kA)
	2-pole U.S. Ordering Code	3- or 4-pole U.S. Ordering Code	U.S. Ordering Code
<b>Thermal Magnetic-Fixed (TMF)</b>			
25	XT4NU2025AFF000XXX	XT4N◆025AFF000XXX	XT4S◆025AFF000XXX
30	XT4NU2030AFF000XXX	XT4N◆030AFF000XXX	XT4S◆030AFF000XXX
35	XT4NU2035AFF000XXX	XT4N◆035AFF000XXX	XT4S◆035AFF000XXX
40	XT4NU2040AFF000XXX	XT4N◆040AFF000XXX	XT4S◆040AFF000XXX
50	XT4NU2050AFF000XXX	XT4N◆050AFF000XXX	XT4S◆050AFF000XXX
60	XT4NU2060AFF000XXX	XT4N◆060AFF000XXX	XT4S◆060AFF000XXX
70	XT4NU2070AFF000XXX	XT4N◆070AFF000XXX	XT4S◆070AFF000XXX
80	–	XT4N■3080AFF000XXX	XT4S■3080AFF000XXX
90	–	XT4N■3090AFF000XXX	XT4S■3090AFF000XXX
100	–	XT4N■3100AFF000XXX	XT4S■3100AFF000XXX
110	–	XT4N■3110AFF000XXX	XT4S■3110AFF000XXX
125	–	XT4N■3125AFF000XXX	XT4S■3125AFF000XXX
150	–	XT4N■3150AFF000XXX	XT4S■3150AFF000XXX
175	–	XT4N■3175AFF000XXX	XT4S■3175AFF000XXX
200	–	XT4N■3200AFF000XXX	XT4S■3200AFF000XXX
225	–	XT4N■3225AFF000XXX	XT4S■3225AFF000XXX
250	–	XT4N■3250AFF000XXX	XT4S■3250AFF000XXX
<b>Thermal Magnetic-Adjustable (TMA)</b>			
80	XT4NU2080BFF000XXX	XT4N◆080BFF000XXX	XT4S◆080BFF000XXX
90	XT4NU2090BFF000XXX	XT4N◆090BFF000XXX	XT4S◆090BFF000XXX
100	XT4NU2100BFF000XXX	XT4N◆100BFF000XXX	XT4S◆100BFF000XXX
110	XT4NU2110BFF000XXX	XT4N◆110BFF000XXX	XT4S◆110BFF000XXX
125	XT4NU2125BFF000XXX	XT4N◆125BFF000XXX	XT4S◆125BFF000XXX
150	XT4NU2150BFF000XXX	XT4N◆150BFF000XXX	XT4S◆150BFF000XXX
175	XT4NU2175BFF000XXX	XT4N◆175BFF000XXX	XT4S◆175BFF000XXX
200	XT4NU2200BFF000XXX	XT4N◆200BFF000XXX	XT4S◆200BFF000XXX
225	XT4NU2225BFF000XXX	XT4N◆225BFF000XXX	XT4S◆225BFF000XXX
250	XT4NU2250BFF000XXX	XT4N◆250BFF000XXX	XT4S◆250BFF000XXX

■ U for UL 80% rated or Q for 100% rated      ◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT4, 250A Frame, Thermal Magnetic-Fixed (TMF) and Adjustable (TMA) Protection with Front Terminals

Amps	H (65kA)	
	3- or 4-pole U.S. Ordering Code	4-pole U.S. Ordering Code
<b>Thermal Magnetic-Fixed (TMF)</b>		
25	XT4H◆025AFF000XXX	–
30	XT4H◆030AFF000XXX	–
35	XT4H◆035AFF000XXX	–
40	XT4H◆040AFF000XXX	–
50	XT4H◆050AFF000XXX	–
60	XT4H◆060AFF000XXX	–
70	XT4H◆070AFF000XXX	–
80	XT4H■3080AFF000XXX	–
90	XT4H■3090AFF000XXX	–
100	XT4H■3100AFF000XXX	–
110	XT4H■3110AFF000XXX	–
125	XT4H■3125AFF000XXX	–
150	XT4H■3150AFF000XXX	–
175	XT4H■3175AFF000XXX	–
200	XT4H■3200AFF000XXX	–
225	XT4H■3225AFF000XXX	–
250	XT4H■3250AFF000XXX	–
<b>Thermal Magnetic-Adjustable (TMA)</b>		
80	XT4HU3080BFF000XXX	XT4H■4080BFF000XXX
90	XT4HU3090BFF000XXX	XT4H■4090BFF000XXX
100	XT4HU3100BFF000XXX	XT4H■4100BFF000XXX
110	XT4HU3110BFF000XXX	XT4H■4110BFF000XXX
125	XT4HU3125BFF000XXX	XT4H■4125BFF000XXX
150	XT4HU3150BFF000XXX	XT4H■4150BFF000XXX
175	XT4HU3175BFF000XXX	XT4H■4175BFF000XXX
200	XT4HU3200BFF000XXX	XT4H■4200BFF000XXX
225	XT4HU3225BFF000XXX	XT4H■4225BFF000XXX
250	XT4HU3250BFF000XXX	XT4H■4250BFF000XXX

■ U for UL 80% rated or Q for 100% rated      ◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT4

### Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Thermal Magnetic-Fixed (TMF) and Adjustable (TMA) Protection with Front Terminals

Amps	L (100kA)	V (150kA)	X (200kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Thermal Magnetic-Fixed (TMF)</b>			
25	XT4L■◆025AFF000XXX	XT4V■◆025AFF000XXX	XT4X■◆025AFF000XXX
30	XT4L■◆030AFF000XXX	XT4V■◆030AFF000XXX	XT4X■◆030AFF000XXX
35	XT4L■◆035AFF000XXX	XT4V■◆035AFF000XXX	XT4X■◆035AFF000XXX
40	XT4L■◆040AFF000XXX	XT4V■◆040AFF000XXX	XT4X■◆040AFF000XXX
50	XT4L■◆050AFF000XXX	XT4V■◆050AFF000XXX	XT4X■◆050AFF000XXX
60	XT4L■◆060AFF000XXX	XT4V■◆060AFF000XXX	XT4X■◆060AFF000XXX
70	XT4L■◆070AFF000XXX	XT4V■◆070AFF000XXX	XT4X■◆070AFF000XXX
80	XT4L■3080AFF000XXX	XT4V■3080AFF000XXX	XT4X■3080AFF000XXX
90	XT4L■3090AFF000XXX	XT4V■3090AFF000XXX	XT4X■3090AFF000XXX
100	XT4L■3100AFF000XXX	XT4V■3100AFF000XXX	XT4X■3100AFF000XXX
110	XT4L■3110AFF000XXX	XT4V■3110AFF000XXX	XT4X■3110AFF000XXX
125	XT4L■3125AFF000XXX	XT4V■3125AFF000XXX	XT4X■3125AFF000XXX
150	XT4L■3150AFF000XXX	XT4V■3150AFF000XXX	XT4X■3150AFF000XXX
175	XT4L■3175AFF000XXX	XT4V■3175AFF000XXX	XT4X■3175AFF000XXX
200	XT4L■3200AFF000XXX	XT4V■3200AFF000XXX	XT4X■3200AFF000XXX
225	XT4L■3225AFF000XXX	XT4V■3225AFF000XXX	XT4X■3225AFF000XXX
250	XT4L■3250AFF000XXX	XT4V■3250AFF000XXX	XT4X■3250AFF000XXX
<b>Thermal Magnetic-Adjustable (TMA)</b>			
80	XT4L■◆080BFF000XXX	XT4V■◆080BFF000XXX	XT4X■◆080BFF000XXX
90	XT4L■◆090BFF000XXX	XT4V■◆090BFF000XXX	XT4X■◆090BFF000XXX
100	XT4L■◆100BFF000XXX	XT4V■◆100BFF000XXX	XT4X■◆100BFF000XXX
110	XT4L■◆110BFF000XXX	XT4V■◆110BFF000XXX	XT4X■◆110BFF000XXX
125	XT4L■◆125BFF000XXX	XT4V■◆125BFF000XXX	XT4X■◆125BFF000XXX
150	XT4L■◆150BFF000XXX	XT4V■◆150BFF000XXX	XT4X■◆150BFF000XXX
175	XT4L■◆175BFF000XXX	XT4V■◆175BFF000XXX	XT4X■◆175BFF000XXX
200	XT4L■◆200BFF000XXX	XT4V■◆200BFF000XXX	XT4X■◆200BFF000XXX
225	XT4L■◆225BFF000XXX	XT4V■◆225BFF000XXX	XT4X■◆225BFF000XXX
250	XT4L■◆250BFF000XXX	XT4V■◆250BFF000XXX	XT4X■◆250BFF000XXX

■ U for UL 80% rated or Q for 100% rated  
 ◆ 3 for 3-pole or 4 for 4-pole

# Ordering codes for Tmax XT4

## Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Amps	N (25kA)		S (35kA)		H (65kA)	
	U.S. Ordering Code		U.S. Ordering Code		U.S. Ordering Code	
<b>Ekip DIP LS/I</b>						
40	XT4N■◆040EFF000XXX		XT4S■◆040EFF000XXX		XT4H■◆040EFF000XXX	
60	XT4N■◆060EFF000XXX		XT4S■◆060EFF000XXX		XT4H■◆060EFF000XXX	
100	XT4N■◆100EFF000XXX		XT4S■◆100EFF000XXX		XT4H■◆100EFF000XXX	
150	XT4N■◆150EFF000XXX		XT4S■◆150EFF000XXX		XT4H■◆150EFF000XXX	
225	XT4N■◆225EFF000XXX		XT4S■◆225EFF000XXX		XT4H■◆225EFF000XXX	
250	XT4N■◆250EFF000XXX		XT4S■◆250EFF000XXX		XT4H■◆250EFF000XXX	
<b>Ekip DIP LSI</b>						
40	XT4N■◆040FFF000XXX		XT4S■◆040FFF000XXX		XT4H■◆040FFF000XXX	
60	XT4N■◆060FFF000XXX		XT4S■◆060FFF000XXX		XT4H■◆060FFF000XXX	
100	XT4N■◆100FFF000XXX		XT4S■◆100FFF000XXX		XT4H■◆100FFF000XXX	
150	XT4N■◆150FFF000XXX		XT4S■◆150FFF000XXX		XT4H■◆150FFF000XXX	
225	XT4N■◆225FFF000XXX		XT4S■◆225FFF000XXX		XT4H■◆225FFF000XXX	
250	XT4N■◆250FFF000XXX		XT4S■◆250FFF000XXX		XT4H■◆250FFF000XXX	
<b>Ekip DIP LSIG</b>						
40	XT4N■◆040GFF000XXX		XT4S■◆040GFF000XXX		XT4H■◆040GFF000XXX	
60	XT4N■◆060GFF000XXX		XT4S■◆060GFF000XXX		XT4H■◆060GFF000XXX	
100	XT4N■◆100GFF000XXX		XT4S■◆100GFF000XXX		XT4H■◆100GFF000XXX	
150	XT4N■◆150GFF000XXX		XT4S■◆150GFF000XXX		XT4H■◆150GFF000XXX	
225	XT4N■◆225GFF000XXX		XT4S■◆225GFF000XXX		XT4H■◆225GFF000XXX	
250	XT4N■◆250GFF000XXX		XT4S■◆250GFF000XXX		XT4H■◆250GFF000XXX	
<b>Ekip DIP LIG</b>						
40	XT4N■◆040CFF000XXX		XT4S■◆040CFF000XXX		XT4H■◆040CFF000XXX	
60	XT4N■◆060CFF000XXX		XT4S■◆060CFF000XXX		XT4H■◆060CFF000XXX	
100	XT4N■◆100CFF000XXX		XT4S■◆100CFF000XXX		XT4H■◆100CFF000XXX	
150	XT4N■◆150CFF000XXX		XT4S■◆150CFF000XXX		XT4H■◆150CFF000XXX	
225	XT4N■◆225CFF000XXX		XT4S■◆225CFF000XXX		XT4H■◆225CFF000XXX	
250	XT4N■◆250CFF000XXX		XT4S■◆250CFF000XXX		XT4H■◆250CFF000XXX	

■ U for UL 80% rated or Q for 100% rated      ◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT4, 250A Frame, Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Amps	L (100kA)		V (150kA)		X (200kA)	
	U.S. Ordering Code		U.S. Ordering Code		U.S. Ordering Code	
<b>Ekip DIP LS/I</b>						
40	XT4L■◆040EFF000XXX		XT4V■◆040EFF000XXX		XT4X■◆040EFF000XXX	
60	XT4L■◆060EFF000XXX		XT4V■◆060EFF000XXX		XT4X■◆060EFF000XXX	
100	XT4L■◆100EFF000XXX		XT4V■◆100EFF000XXX		XT4X■◆100EFF000XXX	
150	XT4L■◆150EFF000XXX		XT4V■◆150EFF000XXX		XT4X■◆150EFF000XXX	
225	XT4L■◆225EFF000XXX		XT4V■◆225EFF000XXX		XT4X■◆225EFF000XXX	
250	XT4L■◆250EFF000XXX		XT4V■◆250EFF000XXX		XT4X■◆250EFF000XXX	
<b>Ekip DIP LSI</b>						
40	XT4L■◆040FFF000XXX		XT4V■◆040FFF000XXX		XT4X■◆040FFF000XXX	
60	XT4L■◆060FFF000XXX		XT4V■◆060FFF000XXX		XT4X■◆060FFF000XXX	
100	XT4L■◆100FFF000XXX		XT4V■◆100FFF000XXX		XT4X■◆100FFF000XXX	
150	XT4L■◆150FFF000XXX		XT4V■◆150FFF000XXX		XT4X■◆150FFF000XXX	
225	XT4L■◆225FFF000XXX		XT4V■◆225FFF000XXX		XT4X■◆225FFF000XXX	
250	XT4L■◆250FFF000XXX		XT4V■◆250FFF000XXX		XT4X■◆250FFF000XXX	
<b>Ekip DIP LSIG</b>						
40	XT4L■◆040GFF000XXX		XT4V■◆040GFF000XXX		XT4X■◆040GFF000XXX	
60	XT4L■◆060GFF000XXX		XT4V■◆060GFF000XXX		XT4X■◆060GFF000XXX	
100	XT4L■◆100GFF000XXX		XT4V■◆100GFF000XXX		XT4X■◆100GFF000XXX	
150	XT4L■◆150GFF000XXX		XT4V■◆150GFF000XXX		XT4X■◆150GFF000XXX	
225	XT4L■◆225GFF000XXX		XT4V■◆225GFF000XXX		XT4X■◆225GFF000XXX	
250	XT4L■◆250GFF000XXX		XT4V■◆250GFF000XXX		XT4X■◆250GFF000XXX	
<b>Ekip DIP LIG</b>						
40	XT4L■◆100CFF000XXX		XT4V■◆040CFF000XXX		XT4X■◆040CFF000XXX	
60	XT4L■◆150CFF000XXX		XT4V■◆060CFF000XXX		XT4X■◆060CFF000XXX	
100	XT4L■◆225CFF000XXX		XT4V■◆100CFF000XXX		XT4X■◆100CFF000XXX	
150	XT4L■◆250CFF000XXX		XT4V■◆150CFF000XXX		XT4X■◆150CFF000XXX	
225	XT4L■◆040CFF000XXX		XT4V■◆225CFF000XXX		XT4X■◆225CFF000XXX	
250	XT4L■◆060CFF000XXX		XT4V■◆250CFF000XXX		XT4X■◆250CFF000XXX	

■ U for UL 80% rated or Q for 100% rated      ◆ 3 for 3-pole or 4 for 4-pol

## Ordering codes for Tmax XT4 Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Ekip TOUCH LSI and LSIG, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>			
100	XT4N■◆100PFF000XXX	XT4S■◆100PFF000XXX	XT4H■◆100PFF000XXX
150	XT4N■◆150PFF000XXX	XT4S■◆150PFF000XXX	XT4H■◆150PFF000XXX
225	XT4N■◆225PFF000XXX	XT4S■◆225PFF000XXX	XT4H■◆225PFF000XXX
250	XT4N■◆250PFF000XXX	XT4S■◆250PFF000XXX	XT4H■◆250PFF000XXX
<b>Ekip TOUCH LSIG</b>			
100	XT4N■◆100QFF000XXX	XT4S■◆100QFF000XXX	XT4H■◆100QFF000XXX
150	XT4N■◆150QFF000XXX	XT4S■◆150QFF000XXX	XT4H■◆150QFF000XXX
225	XT4N■◆225QFF000XXX	XT4S■◆225QFF000XXX	XT4H■◆225QFF000XXX
250	XT4N■◆250QFF000XXX	XT4S■◆250QFF000XXX	XT4H■◆250QFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT4, 250A Frame, Ekip TOUCH LSI and LSIG, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)	X (200kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>			
100	XT4L■◆100PFF000XXX	XT4V■◆100PFF000XXX	XT4X■◆100PFF000XXX
150	XT4L■◆150PFF000XXX	XT4V■◆150PFF000XXX	XT4X■◆150PFF000XXX
225	XT4L■◆225PFF000XXX	XT4V■◆225PFF000XXX	XT4X■◆225PFF000XXX
250	XT4L■◆250PFF000XXX	XT4V■◆250PFF000XXX	XT4X■◆250PFF000XXX
<b>Ekip TOUCH LSIG</b>			
100	XT4L■◆100QFF000XXX	XT4V■◆100QFF000XXX	XT4X■◆100QFF000XXX
150	XT4L■◆150QFF000XXX	XT4V■◆150QFF000XXX	XT4X■◆150QFF000XXX
225	XT4L■◆225QFF000XXX	XT4V■◆225QFF000XXX	XT4X■◆225QFF000XXX
250	XT4L■◆250QFF000XXX	XT4V■◆250QFF000XXX	XT4X■◆250QFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT4 Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
100	XT4N■◆100RFF000XXX	XT4S■◆100RFF000XXX	XT4H■◆100RFF000XXX
150	XT4N■◆150RFF000XXX	XT4S■◆150RFF000XXX	XT4H■◆150RFF000XXX
225	XT4N■◆225RFF000XXX	XT4S■◆225RFF000XXX	XT4H■◆225RFF000XXX
250	XT4N■◆250RFF000XXX	XT4S■◆250RFF000XXX	XT4H■◆250RFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>			
100	XT4N■◆100SFF000XXX	XT4S■◆100SFF000XXX	XT4H■◆100SFF000XXX
150	XT4N■◆150SFF000XXX	XT4S■◆150SFF000XXX	XT4H■◆150SFF000XXX
225	XT4N■◆225SFF000XXX	XT4S■◆225SFF000XXX	XT4H■◆225SFF000XXX
250	XT4N■◆250SFF000XXX	XT4S■◆250SFF000XXX	XT4H■◆250SFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT4, 250A Frame, Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)	X (200kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
100	XT4L■◆100RFF000XXX	XT4V■◆100RFF000XXX	XT4X■◆100RFF000XXX
150	XT4L■◆150RFF000XXX	XT4V■◆150RFF000XXX	XT4X■◆150RFF000XXX
225	XT4L■◆225RFF000XXX	XT4V■◆225RFF000XXX	XT4X■◆225RFF000XXX
250	XT4L■◆250RFF000XXX	XT4V■◆250RFF000XXX	XT4X■◆250RFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>			
100	XT4L■◆100SFF000XXX	XT4V■◆100SFF000XXX	XT4X■◆100SFF000XXX
150	XT4L■◆150SFF000XXX	XT4V■◆150SFF000XXX	XT4X■◆150SFF000XXX
225	XT4L■◆225SFF000XXX	XT4V■◆225SFF000XXX	XT4X■◆225SFF000XXX
250	XT4L■◆250SFF000XXX	XT4V■◆250SFF000XXX	XT4X■◆250SFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT4 Circuit breakers



Tmax XT4 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT4, 250A Frame, Ekip HI-TOUCH LSI and LSIG, protection trip units with Front Terminals

Amps	N (25kA)	S (35kA)	H (65kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
100	XT4N■◆100TFF000XXX	XT4S■◆100TFF000XXX	XT4H■◆100TFF000XXX
150	XT4N■◆150TFF000XXX	XT4S■◆150TFF000XXX	XT4H■◆150TFF000XXX
225	XT4N■◆225TFF000XXX	XT4S■◆225TFF000XXX	XT4H■◆225TFF000XXX
250	XT4N■◆250TFF000XXX	XT4S■◆250TFF000XXX	XT4H■◆250TFF000XXX
<b>Ekip HI-TOUCH LSIG</b>			
100	XT4N■◆100UFF000XXX	XT4S■◆100UFF000XXX	XT4H■◆100UFF000XXX
150	XT4N■◆150UFF000XXX	XT4S■◆150UFF000XXX	XT4H■◆150UFF000XXX
225	XT4N■◆225UFF000XXX	XT4S■◆225UFF000XXX	XT4H■◆225UFF000XXX
250	XT4N■◆250UFF000XXX	XT4S■◆250UFF000XXX	XT4H■◆250UFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT4, 250A Frame, Ekip HI-TOUCH LSI and LSIG, protection trip units with Front Terminals

Amps	L (100kA)	V (150kA)	X (200kA)
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
100	XT4L■◆100TFF000XXX	XT4V■◆100TFF000XXX	XT4X■◆100TFF000XXX
150	XT4L■◆150TFF000XXX	XT4V■◆150TFF000XXX	XT4X■◆150TFF000XXX
225	XT4L■◆225TFF000XXX	XT4V■◆225TFF000XXX	XT4X■◆225TFF000XXX
250	XT4L■◆250TFF000XXX	XT4V■◆250TFF000XXX	XT4X■◆250TFF000XXX
<b>Ekip HI-TOUCH LSIG</b>			
100	XT4L■◆100UFF000XXX	XT4V■◆100UFF000XXX	XT4X■◆100UFF000XXX
150	XT4L■◆150UFF000XXX	XT4V■◆150UFF000XXX	XT4X■◆150UFF000XXX
225	XT4L■◆225UFF000XXX	XT4V■◆225UFF000XXX	XT4X■◆225UFF000XXX
250	XT4L■◆250UFF000XXX	XT4V■◆250UFF000XXX	XT4X■◆250UFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT4 Circuit breakers



Tmax XT4 – circuit breaker

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT4, 250A Frame, Ekip M-LIU trip unit, front terminals (F)

Amps	H (65kA)	L (100kA)	V (150kA)	X (200kA)
	3-pole	3-pole	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
40	XT4H■3040LFF000XXX	XT4L■3040LFF000XXX	XT4V■3040LFF000XXX	XT4X■3040LFF000XXX
60	XT4H■3060LFF000XXX	XT4L■3060LFF000XXX	XT4V■3060LFF000XXX	XT4X■3060LFF000XXX
100	XT4H■3100LFF000XXX	XT4L■3100LFF000XXX	XT4V■3100LFF000XXX	XT4X■3100LFF000XXX
150	XT4H■3150LFF000XXX	XT4L■3150LFF000XXX	XT4V■3150LFF000XXX	XT4X■3150LFF000XXX

■ U for UL 80% rated or Q for 100% rated

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT4, 250A Frame, EkipM Touch LRIU front terminals (F)

Amps	S (35kA)	H (65kA)	L (100kA)
	3-pole	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
100	XT4SQ3100WFF000XXX	XT4H■3100WFF000XXX	XT4L■3100WFF000XXX
150	XT4SQ3150WFF000XXX	XT4H■3150WFF000XXX	XT4L■3150WFF000XXX
225	XT4SQ3225WFF000XXX	XT4H■3225WFF000XXX	XT4L■3225WFF000XXX

■ U for UL 80% rated or Q for 100% rated

Amps	V (150kA)	X (200kA)
	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code
100	XT4V■3100WFF000XXX	XT4X■3100WFF000XXX
150	XT4V■3150WFF000XXX	XT4X■3150WFF000XXX
225	XT4V■3225WFF000XXX	XT4X■3225WFF000XXX

■ U for UL 80% rated or Q for 100% rated

### Motor circuit protector (MCP)

#### Tmax XT, XT4 250A Frame MA trip unit front terminals (F)

Amps	H (65kA)	L (100kA)
	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code
25	XT4HU3025MFF000XXX	XT4LU3025MFF000XXX
50	XT4HU3050MFF000XXX	XT4LU3050MFF000XXX
80	XT4HU3080MFF000XXX	XT4LU3080MFF000XXX
100	XT4HU3100MFF000XXX	XT4LU3100MFF000XXX
110	XT4HU3110MFF000XXX	XT4LU3110MFF000XXX
125	XT4HU3125MFF000XXX	XT4LU3125MFF000XXX
150	XT4HU3150MFF000XXX	XT4LU3150MFF000XXX
175	XT4HU3175MFF000XXX	XT4LU3175MFF000XXX
200	XT4HU3200MFF000XXX	XT4LU3200MFF000XXX
225	XT4HU3225MFF000XXX	XT4LU3225MFF000XXX
250	XT4HU3250MFF000XXX	XT4LU3250MFF000XXX

■ U for UL 80% rated or Q for 100% rated



## Ordering codes for Tmax XT4

Circuit breakers



Tmax XT4 – circuit breaker

### Motor protection circuit breaker (MPCB)

Tmax XT, XT4, 250A Frame, Ekip I front terminals (F)

Amps	H (65kA)	L (100kA)	V (150kA)	X (200kA)
	3-pole	3-pole	3-pole	3-pole
	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
40	XT4HU3040JFF000XXX	XT4LU3040JFF000XXX	XT4VU3040JFF000XXX	XT4XU3040JFF000XXX
60	XT4HU3060JFF000XXX	XT4LU3060JFF000XXX	XT4VU3060JFF000XXX	XT4XU3060JFF000XXX
100	XT4HU3100JFF000XXX	XT4LU3100JFF000XXX	XT4VU3100JFF000XXX	XT4XU3100JFF000XXX
150	XT4HU3150JFF000XXX	XT4LU3150JFF000XXX	XT4VU3150JFF000XXX	XT4XU3150JFF000XXX
225	XT4HU3225JFF000XXX	XT4LU3225JFF000XXX	XT4VU3225JFF000XXX	XT4XU3225JFF000XXX
250	XT4HU3250JFF000XXX	XT4LU3250JFF000XXX	XT4VU3250JFF000XXX	XT4XU3250JFF000XXX

### Molded case switches

Tmax XT XT3D, 225A Frame MCS

Iu	Type	U.S. Ordering Code
150	XT4N-D 150	XT4NU◆150DFF000XXX
	XT4S-D 150	XT4SU◆150DFF000XXX
	XT4H-D 150	XT4HU◆150DFF000XXX
	XT4L-D 150	XT4LU◆150DFF000XXX
	XT4V-D 150	XT4VU◆150DFF000XXX
250	XT4N-D 250	XT4NU◆250DFF000XXX
	XT4S-D 250	XT4SU◆250DFF000XXX
	XT4H-D 250	XT4HU◆250DFF000XXX
	XT4L-D 250	XT4LU◆250DFF000XXX
	XT4V-D 250	XT4VU◆250DFF000XXX

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5

### Circuit breakers



Tmax XT5 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT5, Thermal Magnetic-Adjustable (TMA) Protection with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5N■◆30ABFF000XXX	XT5S■◆30ABFF000XXX	XT5H■◆30ABFF000XXX
	400	XT5N■◆40ABFF000XXX	XT5S■◆40ABFF000XXX	XT5H■◆40ABFF000XXX
600	500	XT5N■◆50BBFF000XXX	XT5S■◆50BBFF000XXX	XT5H■◆50BBFF000XXX
	600	XT5N■◆60BBFF000XXX	XT5S■◆60BBFF000XXX	XT5H■◆60BBFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5, Thermal Magnetic-Adjustable (TMA) Protection with Front Terminals

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5L■◆30ABFF000XXX	XT5V■◆30ABFF000XXX	XT5X■◆30ABFF000XXX
	400	XT5L■◆40ABFF000XXX	XT5V■◆40ABFF000XXX	XT5X■◆40ABFF000XXX
600	500	XT5L■◆50BBFF000XXX	XT5V■◆50BBFF000XXX	XT5X■◆50BBFF000XXX
	600	XT5L■◆60BBFF000XXX	XT5VU◆60BBFF000XXX	XT5XU◆60BBFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

# Ordering codes for Tmax XT5 Circuit breakers



Tmax XT5 – circuit breaker

## Distribution circuit breakers

### Tmax XT, XT5 Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>				
400	250	XT5N■◆25AEFF000XXX	XT5S■◆25AEFF000XXX	XT5H■◆25AEFF000XXX
	300	XT5N■◆30AEFF000XXX	XT5S■◆30AEFF000XXX	XT5H■◆30AEFF000XXX
	400	XT5N■◆40AEFF000XXX	XT5S■◆40AEFF000XXX	XT5H■◆40AEFF000XXX
600	600	XT5N■◆60BEFF000XXX	XT5S■◆60BEFF000XXX	XT5H■◆60BEFF000XXX
<b>Ekip DIP LSI</b>				
400	250	XT5N■◆25AFF000XXX	XT5S■◆25AFF000XXX	XT5H■◆25AFF000XXX
	300	XT5N■◆30AFF000XXX	XT5S■◆30AFF000XXX	XT5H■◆30AFF000XXX
	400	XT5N■◆40AFF000XXX	XT5S■◆40AFF000XXX	XT5H■◆40AFF000XXX
600	600	XT5N■◆60BFF000XXX	XT5S■◆60BFF000XXX	XT5H■◆60BFF000XXX
<b>Ekip DIP LSIG</b>				
400	250	XT5N■◆25AGFF000XXX	XT5S■◆25AGFF000XXX	XT5H■◆25AGFF000XXX
	300	XT5N■◆30AGFF000XXX	XT5S■◆30AGFF000XXX	XT5H■◆30AGFF000XXX
	400	XT5N■◆40AGFF000XXX	XT5S■◆40AGFF000XXX	XT5H■◆40AGFF000XXX
600	600	XT5N■◆60BGFF000XXX	XT5S■◆60BGFF000XXX	XT5H■◆60BGFF000XXX
<b>Ekip DIP LIG</b>				
400	250	XT5N■◆25ACFF000XXX	XT5S■◆25ACFF000XXX	XT5H■◆25ACFF000XXX
	300	XT5N■◆30ACFF000XXX	XT5S■◆30ACFF000XXX	XT5H■◆30ACFF000XXX
	400	XT5N■◆40ACFF000XXX	XT5S■◆40ACFF000XXX	XT5H■◆40ACFF000XXX
600	600	XT5N■◆60BCFF000XXX	XT5S■◆60BCFF000XXX	XT5H■◆60BCFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Tmax XT, XT5 Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>				
400	250	XT5L■◆25AEFF000XXX	XT5V■◆25AEFF000XXX	XT5X■◆25AEFF000XXX
	300	XT5L■◆30AEFF000XXX	XT5V■◆30AEFF000XXX	XT5X■◆30AEFF000XXX
	400	XT5L■◆40AEFF000XXX	XT5V■◆40AEFF000XXX	XT5X■◆40AEFF000XXX
600	600	XT5L■◆60BEFF000XXX	XT5V■◆60BEFF000XXX	XT5X■◆60BEFF000XXX
<b>Ekip DIP LSI</b>				
400	250	XT5L■◆25AFF000XXX	XT5V■◆25AFF000XXX	XT5X■◆25AFF000XXX
	300	XT5L■◆30AFF000XXX	XT5V■◆30AFF000XXX	XT5X■◆30AFF000XXX
	400	XT5L■◆40AFF000XXX	XT5V■◆40AFF000XXX	XT5X■◆40AFF000XXX
600	600	XT5L■◆60BFF000XXX	XT5V■◆60BFF000XXX	XT5X■◆60BFF000XXX
<b>Ekip DIP LSIG</b>				
400	250	XT5L■◆25AGFF000XXX	XT5V■◆25AGFF000XXX	XT5X■◆25AGFF000XXX
	300	XT5L■◆30AGFF000XXX	XT5V■◆30AGFF000XXX	XT5X■◆30AGFF000XXX
	400	XT5L■◆40AGFF000XXX	XT5V■◆40AGFF000XXX	XT5X■◆40AGFF000XXX
600	600	XT5L■◆60BGFF000XXX	XT5V■◆60BGFF000XXX	XT5X■◆60BGFF000XXX
<b>Ekip DIP LIG</b>				
400	250	XT5L■◆25ACFF000XXX	XT5V■◆25ACFF000XXX	XT5X■◆25ACFF000XXX
	300	XT5L■◆30ACFF000XXX	XT5V■◆30ACFF000XXX	XT5X■◆30ACFF000XXX
	400	XT5L■◆40ACFF000XXX	XT5V■◆40ACFF000XXX	XT5X■◆40ACFF000XXX
600	600	XT5L■◆60BCFF000XXX	XT5V■◆60BCFF000XXX	XT5X■◆60BCFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5

### Circuit breakers



Tmax XT5 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT5 Ekip TOUCH LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>				
400	250	XT5N■◆25APFF000XXX	XT5S■◆25APFF000XXX	XT5H■◆25APFF000XXX
	300	XT5N■◆30APFF000XXX	XT5S■◆30APFF000XXX	XT5H■◆30APFF000XXX
	400	XT5N■◆40APFF000XXX	XT5S■◆40APFF000XXX	XT5H■◆40APFF000XXX
600	600	XT5N■◆60BPFF000XXX	XT5S■◆60BPFF000XXX	XT5H■◆60BPFF000XXX
<b>Ekip TOUCH LSIg</b>				
400	250	XT5N■◆25AQFF000XXX	XT5S■◆25AQFF000XXX	XT5H■◆25AQFF000XXX
	300	XT5N■◆30AQFF000XXX	XT5S■◆30AQFF000XXX	XT5H■◆30AQFF000XXX
	400	XT5N■◆40AQFF000XXX	XT5S■◆40AQFF000XXX	XT5H■◆40AQFF000XXX
600	600	XT5N■◆60BQFF000XXX	XT5S■◆60BQFF000XXX	XT5H■◆60BQFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip TOUCH LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>				
400	250	XT5L■◆25APFF000XXX	XT5V■◆25APFF000XXX	XT5X■◆25APFF000XXX
	300	XT5L■◆30APFF000XXX	XT5V■◆30APFF000XXX	XT5X■◆30APFF000XXX
	400	XT5L■◆40APFF000XXX	XT5V■◆40APFF000XXX	XT5X■◆40APFF000XXX
600	600	XT5L■◆60BPFF000XXX	XT5V■◆60BPFF000XXX	XT5X■◆60BPFF000XXX
<b>Ekip TOUCH LSIg</b>				
400	250	XT5L■◆25AQFF000XXX	XT5V■◆25AQFF000XXX	XT5X■◆25AQFF000XXX
	300	XT5L■◆30AQFF000XXX	XT5V■◆30AQFF000XXX	XT5X■◆30AQFF000XXX
	400	XT5L■◆40AQFF000XXX	XT5V■◆40AQFF000XXX	XT5X■◆40AQFF000XXX
600	600	XT5L■◆60BQFF000XXX	XT5V■◆60BQFF000XXX	XT5X■◆60BQFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5 Circuit breakers



Tmax XT5 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT5 Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>				
400	250	XT5N■◆25ARFF000XXX	XT5S■◆25ARFF000XXX	XT5H■◆25ARFF000XXX
	300	XT5N■◆30ARFF000XXX	XT5S■◆30ARFF000XXX	XT5H■◆30ARFF000XXX
	400	XT5N■◆40ARFF000XXX	XT5S■◆40ARFF000XXX	XT5H■◆40ARFF000XXX
600	600	XT5N■◆60BRFF000XXX	XT5S■◆60BRFF000XXX	XT5H■◆60BRFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>				
400	250	XT5N■◆25ASFF000XXX	XT5S■◆25ASFF000XXX	XT5H■◆25ASFF000XXX
	300	XT5N■◆30ASFF000XXX	XT5S■◆30ASFF000XXX	XT5H■◆30ASFF000XXX
	400	XT5N■◆40ASFF000XXX	XT5S■◆40ASFF000XXX	XT5H■◆40ASFF000XXX
600	600	XT5N■◆60BSFF000XXX	XT5S■◆60BSFF000XXX	XT5H■◆60BSFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>				
400	250	XT5L■◆25ARFF000XXX	XT5V■◆25ARFF000XXX	XT5X■◆25ARFF000XXX
	300	XT5L■◆30ARFF000XXX	XT5V■◆30ARFF000XXX	XT5X■◆30ARFF000XXX
	400	XT5L■◆40ARFF000XXX	XT5V■◆40ARFF000XXX	XT5X■◆40ARFF000XXX
600	600	XT5L■◆60BRFF000XXX	XT5V■◆60BRFF000XXX	XT5X■◆60BRFF000XXX
<b>Ekip TOUCH Measuring LSIG</b>				
400	250	XT5L■◆25ASFF000XXX	XT5V■◆25ASFF000XXX	XT5X■◆25ASFF000XXX
	300	XT5L■◆30ASFF000XXX	XT5V■◆30ASFF000XXX	XT5X■◆30ASFF000XXX
	400	XT5L■◆40ASFF000XXX	XT5V■◆40ASFF000XXX	XT5X■◆40ASFF000XXX
600	600	XT5L■◆60BSFF000XXX	XT5V■◆60BSFF000XXX	XT5X■◆60BSFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5

### Circuit breakers



Tmax XT5 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT5 Ekip HI-TOUCH LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>				
400	250	XT5N■◆25ATFF000XXX	XT5S■◆25ATFF000XXX	XT5H■◆25ATFF000XXX
	300	XT5N■◆30ATFF000XXX	XT5S■◆30ATFF000XXX	XT5H■◆30ATFF000XXX
	400	XT5N■◆40ATFF000XXX	XT5S■◆40ATFF000XXX	XT5H■◆40ATFF000XXX
600	600	XT5N■◆60BTFF000XXX	XT5S■◆60BTFF000XXX	XT5H■◆60BTFF000XXX
<b>Ekip HI-TOUCH LSIG</b>				
400	250	XT5N■◆25AUFF000XXX	XT5S■◆25AUFF000XXX	XT5H■◆25AUFF000XXX
	300	XT5N■◆30AUFF000XXX	XT5S■◆30AUFF000XXX	XT5H■◆30AUFF000XXX
	400	XT5N■◆40AUFF000XXX	XT5S■◆40AUFF000XXX	XT5H■◆40AUFF000XXX
600	600	XT5N■◆60BUFF000XXX	XT5S■◆60BUFF000XXX	XT5H■◆60BUFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip HI-TOUCH LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>				
400	250	XT5L■◆25ATFF000XXX	XT5V■◆25ATFF000XXX	XT5X■◆25ATFF000XXX
	300	XT5L■◆30ATFF000XXX	XT5V■◆30ATFF000XXX	XT5X■◆30ATFF000XXX
	400	XT5L■◆40ATFF000XXX	XT5V■◆40ATFF000XXX	XT5X■◆40ATFF000XXX
600	600	XT5L■◆60BTFF000XXX	XT5V■◆60BTFF000XXX	XT5X■◆60BTFF000XXX
<b>Ekip HI-TOUCH LSIG</b>				
400	250	XT5L■◆25AUFF000XXX	XT5V■◆25AUFF000XXX	XT5X■◆25AUFF000XXX
	300	XT5L■◆30AUFF000XXX	XT5V■◆30AUFF000XXX	XT5X■◆30AUFF000XXX
	400	XT5L■◆40AUFF000XXX	XT5V■◆40AUFF000XXX	XT5X■◆40AUFF000XXX
600	600	XT5L■◆60BUFF000XXX	XT5V■◆60BUFF000XXX	XT5X■◆60BUFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5 Circuit breakers



Tmax XT5 – circuit breaker

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT5 Ekip M-LIU trip unit, front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5N■325ALFF000XXX	XT5S■325ALFF000XXX	XT5H■325ALFF000XXX
	300	XT5N■330ALFF000XXX	XT5S■330ALFF000XXX	XT5H■330ALFF000XXX
	400	XT5N■340ALFF000XXX	XT5S■340ALFF000XXX	XT5H■340ALFF000XXX
600	500	XT5N■350BLFF000XXX	XT5S■350BLFF000XXX	XT5H■350BLFF000XXX

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT5 Ekip M-LIU trip unit, front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■325ALFF000XXX	XT5V■325ALFF000XXX	XT5X■325ALFF000XXX
	300	XT5L■330ALFF000XXX	XT5V■330ALFF000XXX	XT5X■330ALFF000XXX
	400	XT5L■340ALFF000XXX	XT5V■340ALFF000XXX	XT5X■340ALFF000XXX
600	500	XT5L■350BLFF000XXX	XT5VU350BLFF000XXX	XT5XU350BLFF000XXX

■ U for UL 80% rated or Q for 100% rated

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT5 Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5N■325AWFF000XXX	XT5S■325AWFF000XXX	XT5H■325AWFF000XXX
	300	XT5N■330AWFF000XXX	XT5S■330AWFF000XXX	XT5H■330AWFF000XXX
	400	XT5N■340AWFF000XXX	XT5S■340AWFF000XXX	XT5H■340AWFF000XXX
600	500	XT5N■350BWFF000XXX	XT5S■350BWFF000XXX	XT5H■350BWFF000XXX

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT5 Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■325AWFF000XXX	XT5V■325AWFF000XXX	XT5X■325AWFF000XXX
	300	XT5L■330AWFF000XXX	XT5V■330AWFF000XXX	XT5X■330AWFF000XXX
	400	XT5L■340AWFF000XXX	XT5V■340AWFF000XXX	XT5X■340AWFF000XXX
600	500	XT5L■350BWFF000XXX	XT5VU350BWFF000XXX	XT5XU350BWFF000XXX

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT5

### Circuit breakers



Tmax XT5 – circuit breaker

### Motor circuit protector (MCP)

#### Tmax XT, XT5 MA trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5NU330AMFF000XXX	XT5SU330AMFF000XXX	XT5HU330AMFF000XXX
	400	XT5NU340AMFF000XXX	XT5SU340AMFF000XXX	XT5HU340AMFF000XXX
600	500	XT5NU350BMFF000XXX	XT5SU350AMFF000XXX	XT5HU350BMFF000XXX

#### Tmax XT, XT5 MA trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5LU330AMFF000XXX	XT5VU330AMFF000XXX	XT5XU330AMFF000XXX
	400	XT5LU340AMFF000XXX	XT5VU340AMFF000XXX	XT5XU340AMFF000XXX
600	500	XT5LU350BMFF000XXX	XT5VU350BMFF000XXX	XT5XU350BMFF000XXX

### Motor circuit protector (MCP)

#### Tmax XT, XT5 Ekip M I trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5NU325AKFF000XXX	XT5S■325AKFF000XXX	XT5H■325AKFF000XXX
	300	XT5NU330AKFF000XXX	XT5S■330AKFF000XXX	XT5H■330AKFF000XXX
	400	XT5NU340AKFF000XXX	XT5S■340AKFF000XXX	XT5H■340AKFF000XXX
600	500	XT5NU350BKFF000XXX	XT5S■350BKFF000XXX	XT5H■350BKFF000XXX

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT5 Ekip M I trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■325AKFF000XXX	XT5V■325AKFF000XXX	XT5X■325AKFF000XXX
	300	XT5L■330AKFF000XXX	XT5V■330AKFF000XXX	XT5X■330AKFF000XXX
	400	XT5L■340AKFF000XXX	XT5V■340AKFF000XXX	XT5X■340AKFF000XXX
600	500	XT5L■350BKFF000XXX	XT5V■350BKFF000XXX	XT5X■350BKFF000XXX

■ U for UL 80% rated or Q for 100% rated



## Ordering codes for Tmax XT5 Circuit breakers



Tmax XT5 – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT5 TMG trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5N■◆30ANFF000XXX	XT5S■◆30ANFF000XXX	XT5H■◆30ANFF000XXX
	400	XT5N■◆40ANFF000XXX	XT5S■◆40ANFF000XXX	XT5H■◆40ANFF000XXX
600	500	XT5N■◆50BNFF000XXX	XT5S■◆50BNFF000XXX	XT5H■◆50BNFF000XXX
	600	XT5N■◆60BNFF000XXX	XT5S■◆60BNFF000XXX	XT5H■◆60BNFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 TMG trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	300	XT5L■◆30ANFF000XXX	XT5V■◆30ANFF000XXX	XT5X■◆30ANFF000XXX
	400	XT5L■◆40ANFF000XXX	XT5V■◆40ANFF000XXX	XT5X■◆40ANFF000XXX
600	500	–	–	–
	600	XT5L■◆60BNFF000XXX	XT5VU■◆60BNFF000XXX	XT5XU■◆60BNFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Generator protection circuit breaker

#### Tmax XT, XT5 Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5N■◆25AXFF000XXX	XT5S■◆25AXFF000XXX	XT5H■◆25AXFF000XXX
	300	XT5N■◆30AXFF000XXX	XT5S■◆30AXFF000XXX	XT5H■◆30AXFF000XXX
	400	XT5N■◆40AXFF000XXX	XT5S■◆40AXFF000XXX	XT5H■◆40AXFF000XXX
600	600	XT5N■◆60BXFF000XXX	XT5S■◆60BXFF000XXX	XT5H■◆60BXFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■◆25AXFF000XXX	XT5V■◆25AXFF000XXX	XT5X■◆25AXFF000XXX
	300	XT5L■◆30AXFF000XXX	XT5V■◆30AXFF000XXX	XT5X■◆30AXFF000XXX
	400	XT5L■◆40AXFF000XXX	XT5V■◆40AXFF000XXX	XT5X■◆40AXFF000XXX
600	600	XT5L■◆60BXFF000XXX	XT5VU■◆60BXFF000XXX	XT5XU■◆60BXFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT5

### Circuit breakers



Tmax XT5 – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT5 Ekip G Touch LSIg trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5N■◆25AYFF000XXX	XT5S■◆25AYFF000XXX	XT5H■◆25AYFF000XXX
	300	XT5N■◆30AYFF000XXX	XT5S■◆30AYFF000XXX	XT5H■◆30AYFF000XXX
	400	XT5N■◆40AYFF000XXX	XT5S■◆40AYFF000XXX	XT5H■◆40AYFF000XXX
600	600	XT5N■◆60BYFF000XXX	XT5S■◆60BYFF000XXX	XT5H■◆60BYFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip G Touch LSIg trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■◆25AYFF000XXX	XT5V■◆25AYFF000XXX	XT5X■◆25AYFF000XXX
	300	XT5L■◆30AYFF000XXX	XT5V■◆30AYFF000XXX	XT5X■◆30AYFF000XXX
	400	XT5L■◆40AYFF000XXX	XT5V■◆40AYFF000XXX	XT5X■◆40AYFF000XXX
600	600	XT5L■◆60BYFF000XXX	XT5VU■◆60BYFF000XXX	XT5XU■◆60BYFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

### Generator protection circuit breaker

#### Tmax XT, XT5 Ekip G Hi Touch LSIg trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5N■◆25AZFF000XXX	XT5S■◆25AZFF000XXX	XT5H■◆25AZFF000XXX
	300	XT5N■◆30AZFF000XXX	XT5S■◆30AZFF000XXX	XT5H■◆30AZFF000XXX
	400	XT5N■◆40AZFF000XXX	XT5S■◆40AZFF000XXX	XT5H■◆40AZFF000XXX
600	600	XT5N■◆60BZFF000XXX	XT5S■◆60BZFF000XXX	XT5H■◆60BZFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

#### Tmax XT, XT5 Ekip G Hi Touch LSIg trip unit front terminals (F)

Frame Size	Amps	L (100kA)	V (150kA)	X (200kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
400	250	XT5L■◆25AZFF000XXX	XT5V■◆25AZFF000XXX	XT5X■◆25AZFF000XXX
	300	XT5L■◆30AZFF000XXX	XT5V■◆30AZFF000XXX	XT5X■◆30AZFF000XXX
	400	XT5L■◆40AZFF000XXX	XT5V■◆40AZFF000XXX	XT5X■◆40AZFF000XXX
600	600	XT5L■◆60BZFF000XXX	XT5VU■◆60BZFF000XXX	XT5XU■◆60BZFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

**Ordering codes for Tmax XT5**  
Circuit breakers



Tmax XT5 – circuit breaker

Molded case switches

**Tmax XT XT5D - MCS**

Iu	Type	U.S. Ordering Code
400	XT5N-D 400	XT5NU◆40ADFF000XXX
	XT5S-D 400	XT5SU◆40ADFF000XXX
	XT5H-D 400	XT5HU◆40ADFF000XXX
	XT5L-D 400	XT5LU◆40ADFF000XXX
	XT5V-D 400	XT5VU◆40ADFF000XXX
600	XT5N-D 600	XT5NU◆60BDFF000XXX
	XT5S-D 600	XT5SU◆60BDFF000XXX
	XT5H-D 600	XT5HU◆60BDFF000XXX
	XT5L-D 600	XT5LU◆60BDFF000XXX
	XT5V-D 600	XT5VU◆60BDFF000XXX

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT6

### Circuit breakers



Tmax XT6 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT6, Thermal Magnetic-Adjustable (TMA) Protection with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	600	XT6N■◆600BFF000XXX	XT6S■◆600BFF000XXX	XT6H■◆600BFF000XXX
	800	XT6N■◆800BFF000XXX	XT6S■◆800BFF000XXX	XT6H■◆800BFF000XXX

- U for UL 80% rated or Q for 100% rated
- ◆ 3 for 3-pole or 4 for 4-pole

### Distribution circuit breakers

#### Tmax XT, XT6 Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>				
800	600	XT6N■◆600EFF000XXX	XT6S■◆600EFF000XXX	XT6H■◆600EFF000XXX
	800	XT6N■◆800EFF000XXX	XT6S■◆800EFF000XXX	XT6H■◆800EFF000XXX
<b>Ekip DIP LSI</b>				
800	600	XT6N■◆600FFF000XXX	XT6S■◆600FFF000XXX	XT6H■◆600FFF000XXX
	800	XT6N■◆800FFF000XXX	XT6S■◆800FFF000XXX	XT6H■◆800FFF000XXX
<b>Ekip DIP LSIG</b>				
800	600	XT6N■◆600GFF000XXX	XT6S■◆600GFF000XXX	XT5H■◆25AGFF000XXX
	800	XT6N■◆800GFF000XXX	XT6S■◆800GFF000XXX	XT5H■◆30AGFF000XXX
<b>Ekip DIP LIG</b>				
800	600	XT6N■◆600CFF000XXX	XT6S■◆600CFF000XXX	XT6H■◆600CFF000XXX
	800	XT6N■◆800CFF000XXX	XT6S■◆800CFF000XXX	XT6H■◆800CFF000XXX

- U for UL 80% rated or Q for 100% rated
- ◆ 3 for 3-pole or 4 for 4-pole

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT6 Ekip M LIU trip unit, front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	600	XT6N■3600LFF000XXX	XT6S■3600LFF000XXX	XT6H■3600LFF000XXX
	800	XT6N■3800LFF000XXX	XT6S■3800LFF000XXX	XT6H■3800LFF000XXX

- U for UL 80% rated or Q for 100% rated

### Motor circuit protector (MCP)

#### Tmax XT, XT6 Ekip M I trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		3-pole	3-pole	3-pole
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	600	XT6NU3600KFF000XXX	XT6SU3600KFF000XXX	XT6HU3600KFF000XXX

## Ordering codes for Tmax XT6 Circuit breakers



Tmax XT6 – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT6 Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	N (35kA)	S (50kA)	H (65kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	600	XT6N■◆600XFF000XXX	XT6S■◆600XFF000XXX	XT6H■◆600XFF000XXX
	800	XT6N■◆800XFF000XXX	XT6S■◆800XFF000XXX	XT6H■◆800XFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Molded case switches

#### Tmax XT XT6D - MCS

Iu	Type	U.S. Ordering Code
800	XT6N-D 800	XT6NU◆800DFF000XXX
	XT6S-D 800	XT6SU◆800DFF000XXX
	XT6H-D 800	XT6HU◆800DFF000XXX

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT7

### Circuit breakers



Tmax XT7 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7 Ekip DIP LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip DIP LS/I</b>				
800	800	XT7S◆80CEFF000XXX	XT7H◆80CEFF000XXX	XT7L◆80CEFF000XXX
1000	1000	XT7S◆10DEFF000XXX	XT7H◆10DEFF000XXX	XT7L◆10DEFF000XXX
1200	1200	XT7S◆12EEFF000XXX	XT7H◆12EEFF000XXX	XT7L◆12EEFF000XXX
<b>Ekip DIP LSI</b>				
800	800	XT7S◆80CFFF000XXX	XT7H◆80CFFF000XXX	XT7L◆80CFFF000XXX
1000	1000	XT7S◆10DFFF000XXX	XT7H◆10DFFF000XXX	XT7L◆10DFFF000XXX
1200	1200	XT7S◆12EFFF000XXX	XT7H◆12EFFF000XXX	XT7L◆12EFFF000XXX
<b>Ekip DIP LSIG</b>				
800	800	XT7S◆80CGFF000XXX	XT7H◆80CGFF000XXX	XT7L◆80CGFF000XXX
1000	1000	XT7S◆10DGFF000XXX	XT7H◆10DGFF000XXX	XT7L◆10DGFF000XXX
1200	1200	XT7S◆12EGFF000XXX	XT7H◆12EGFF000XXX	XT7L◆12EGFF000XXX
<b>Ekip DIP LIG</b>				
800	800	XT7S◆80CCFF000XXX	XT7H◆80CCFF000XXX	XT7L◆80CCFF000XXX
1000	1000	XT7S◆10DCFF000XXX	XT7H◆10DCFF000XXX	XT7L◆10DCFF000XXX
1200	1200	XT7S◆12ECFF000XXX	XT7H◆12ECFF000XXX	XT7L◆12ECFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

### Distribution circuit breakers

#### Tmax XT, XT7 Ekip TOUCH LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH LSI</b>				
800	800	XT7S◆80CPFF000XXX	XT7H◆80CPFF000XXX	XT7L◆80CPFF000XXX
1000	1000	XT7S◆10DPFF000XXX	XT7H◆10DPFF000XXX	XT7L◆10DPFF000XXX
1200	1200	XT7S◆12EPFF000XXX	XT7H◆12EPFF000XXX	XT7L◆12EPFF000XXX
<b>Ekip TOUCH LSIG</b>				
800	800	XT7S◆80CQFF000XXX	XT7H◆80CQFF000XXX	XT7L◆80CQFF000XXX
1000	1000	XT7S◆10DQFF000XXX	XT7H◆10DQFF000XXX	XT7L◆10DQFF000XXX
1200	1200	XT7S◆12EQFF000XXX	XT7H◆12EQFF000XXX	XT7L◆12EQFF000XXX

■ U for UL 80% rated or Q for 100% rated

◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT7 Circuit breakers



Tmax XT7 – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7 Ekip TOUCH Measuring LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>				
800	800	XT7S■◆80CRFF000XXX	XT7H■◆80CRFF000XXX	XT7L■◆80CRFF000XXX
1000	1000	XT7S■◆10DRFF000XXX	XT7H■◆10DRFF000XXX	XT7L■◆10DRFF000XXX
1200	1200	XT7S■◆12ERFF000XXX	XT7H■◆12ERFF000XXX	XT7L■◆12ERFF000XXX
<b>Ekip TOUCH Measuring LSIg</b>				
800	800	XT7S■◆80CSFF000XXX	XT7H■◆80CSFF000XXX	XT7L■◆80CSFF000XXX
1000	1000	XT7S■◆10DSFF000XXX	XT7H■◆10DSFF000XXX	XT7L■◆10DSFF000XXX
1200	1200	XT7S■◆12ESFF000XXX	XT7H■◆12ESFF000XXX	XT7L■◆12ESFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Distribution circuit breakers

#### Tmax XT, XT7 Ekip HI-TOUCH LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>				
800	800	XT7S■◆80CTFF000XXX	XT7H■◆80CTFF000XXX	XT7L■◆80CTFF000XXX
1000	1000	XT7S■◆10DTFF000XXX	XT7H■◆10DTFF000XXX	XT7L■◆10DTFF000XXX
1200	1200	XT7S■◆12ETFF000XXX	XT7H■◆12ETFF000XXX	XT7L■◆12ETFF000XXX
<b>Ekip HI-TOUCH LSIg</b>				
800	800	XT7S■◆80CUFF000XXX	XT7H■◆80CUFF000XXX	XT7L■◆80CUFF000XXX
1000	1000	XT7S■◆10DUFF000XXX	XT7H■◆10DUFF000XXX	XT7L■◆10DUFF000XXX
1200	1200	XT7S■◆12EUFF000XXX	XT7H■◆12EUFF000XXX	XT7L■◆12EUFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

## Ordering codes for Tmax XT7

### Circuit breakers



Tmax XT7 – circuit breaker

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT7 Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	S (50kA)			H (65kA)			L (100kA)		
		3-pole			3-pole			3-pole		
		U.S. Ordering Code			U.S. Ordering Code			U.S. Ordering Code		
800	800	XT7S■380CWFF000XXX			XT7H■380CWFF000XXX			XT7L■380CWFF000XXX		
1000	1000	XT7S■310DWFF000XXX			XT7H■310DWFF000XXX			XT7L■310DWFF000XXX		
1200	1200	XT7S■312EWFF000XXX			XT7H■312EWFF000XXX			XT7L■312EWFF000XXX		

■ U for UL 80% rated or Q for 100% rated

### Motor circuit protector (MCP)

#### Tmax XT, XT7 Ekip M I trip unit front terminals (F)

Frame Size	Amps	S (50kA)			H (65kA)			L (100k)		
		3-pole			3-pole			3-pole		
		U.S. Ordering Code			U.S. Ordering Code			U.S. Ordering Code		
800	800	XT7S■380CKFF000XXX			XT7H■380CKFF000XXX			XT7L■380CKFF000XXX		
1000	1000	XT7S■310DKFF000XXX			XT7H■310DKFF000XXX			XT7L■310DKFF000XXX		
1200	1200	XT7S■312EKFF000XXX			XT7H■312EKFF000XXX			XT7L■312EKFF000XXX		

■ U for UL 80% rated or Q for 100% rated



## Ordering codes for Tmax XT7 Circuit breakers



Tmax XT7 – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT7 Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	800	XT7S■◆80CFF000XXX	XT7H■◆80CFF000XXX	XT7L■◆80CFF000XXX
1000	1000	XT7S■◆10DXFF000XXX	XT7H■◆10DXFF000XXX	XT7L■◆10DXFF000XXX
1200	1200	XT7S■◆12EXFF000XXX	XT7H■◆12EXFF000XXX	XT7L■◆12EXFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Generator protection circuit breaker

#### Tmax XT, XT7 Ekip G Touch LSIG trip unit front terminals (F)

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	800	XT7S■◆80CYFF000XXX	XT7H■◆80CYFF000XXX	XT7L■◆80CYFF000XXX
1000	1000	XT7S■◆10DYFF000XXX	XT7H■◆10DYFF000XXX	XT7L■◆10DYFF000XXX
1200	1200	XT7S■◆12EYFF000XXX	XT7H■◆12EYFF000XXX	XT7L■◆12EYFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Generator protection circuit breaker

#### Tmax XT, XT7 Ekip G Hi Touch LSIG trip unit front terminals (F)

Frame Size	Amps	S (50kA)	H (65kA)	L (100kA)
		U.S. Ordering Code	U.S. Ordering Code	U.S. Ordering Code
800	800	XT7S■◆80CZFF000XXX	XT7H■◆80CZFF000XXX	XT7L■◆80CZFF000XXX
1000	1000	XT7S■◆10DZFF000XXX	XT7H■◆10DZFF000XXX	XT7L■◆10DZFF000XXX
1200	1200	XT7S■◆12EZFF000XXX	XT7H■◆12EZFF000XXX	XT7L■◆12EZFF000XXX

■ U for UL 80% rated or Q for 100% rated  
◆ 3 for 3-pole or 4 for 4-pole

### Molded case switches

#### Tmax XT XT7D - MCS

Iu	Type	3-pole	4-pole
		U.S. Ordering Code	U.S. Ordering Code
1000	XT7S-D 1000	XT7SU310DDFF000XXX	XT7SU410DDFF000XXX
	XT7H-D 1000	XT7HU310DDFF000XXX	XT7HU410DDFF000XXX
	XT7L-D 1000	XT7LU310DDFF000XXX	XT7LU410DDFF000XXX
1200	XT7S-D 1200	XT7SU312DDFF000XXX	XT7SU412DDFF000XXX
	XT7H-D 1200	XT7HU312DDFF000XXX	XT7HU412DDFF000XXX
	XT7L-D 1200	XT7LU312DDFF000XXX	XT7LU412DDFF000XXX

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7M Ekip LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Dip LS/I</b>			
800	800	XS■CAFAZZAAAA00000	XS■DAFAZZAAAA00000
1000	1000	XS■EFAZZAAAA00000	XS■FAFAZZAAAA00000
1200	1200	XS■GAFAZZAAAA00000	XS■HAFAZZAAAA00000
<b>Ekip Dip LSI</b>			
800	800	XS■CCFAZZAAAA00000	XS■DCFAZZAAAA00000
1000	1000	XS■ECFAZZAAAA00000	XS■FCFAZZAAAA00000
1200	1200	XS■GCFZZAAAA00000	XS■HCFZZAAAA00000
<b>Ekip Dip LSIG</b>			
800	800	XS■CDFAZZAAAA00000	XS■DDFAZZAAAA00000
1000	1000	XS■EDFAZZAAAA00000	XS■FDFAZZAAAA00000
1200	1200	XS■GDFAZZAAAA00000	XS■HDFAZZAAAA00000
<b>Ekip Dip LIG</b>			
800	800	XS■CBFAZZAAAA00000	XS■DBFAZZAAAA00000
1000	1000	XS■EBFAZZAAAA00000	XS■FBFAZZAAAA00000
1200	1200	XS■GBFAZZAAAA00000	XS■HBFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip LS/I, LSI, LSIG, and LIG protection trip units with Front Terminals

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Dip LS/I</b>			
800	800	XH■CAFAZZAAAA00000	XH■DAFAZZAAAA00000
1000	1000	XH■EFAZZAAAA00000	XH■FAFAZZAAAA00000
1200	1200	XH■GAFAZZAAAA00000	XH■HAFAZZAAAA00000
<b>Ekip Dip LSI</b>			
800	800	XH■CCFAZZAAAA00000	XH■DCFAZZAAAA00000
1000	1000	XH■ECFAZZAAAA00000	XH■FCFAZZAAAA00000
1200	1200	XH■GCFZZAAAA00000	XH■HCFZZAAAA00000
<b>Ekip Dip LSIG</b>			
800	800	XH■CDFAZZAAAA00000	XH■DDFAZZAAAA00000
1000	1000	XH■EDFAZZAAAA00000	XH■FDFAZZAAAA00000
1200	1200	XH■GDFAZZAAAA00000	XH■HDFAZZAAAA00000
<b>Ekip Dip LIG</b>			
800	800	XH■CBFAZZAAAA00000	XH■DBFAZZAAAA00000
1000	1000	XH■EBFAZZAAAA00000	XH■FBFAZZAAAA00000
1200	1200	XH■GBFAZZAAAA00000	XH■HBFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

Circuit breakers



Tmax XT7M – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7M Ekip LS/I, LSI, LSIg, and LIG protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Dip LS/I</b>			
800	800	XL■CAFAZZAAAA00000	XL■DAFAZZAAAA00000
1000	1000	XL■EFAZZAAAA00000	XL■FAFAZZAAAA00000
1200	1200	XL■GAFAZZAAAA00000	XL■HAFAZZAAAA00000
<b>Ekip Dip LSI</b>			
800	800	XL■CCFAZZAAAA00000	XL■DCFAZZAAAA00000
1000	1000	XL■ECFAZZAAAA00000	XL■FCFAZZAAAA00000
1200	1200	XL■GCFAZZAAAA00000	XL■HCFAZZAAAA00000
<b>Ekip Dip LSIg</b>			
800	800	XL■CDFAZZAAAA00000	XL■DDFAZZAAAA00000
1000	1000	XL■EDFAZZAAAA00000	XL■FDFAZZAAAA00000
1200	1200	XL■GDFAZZAAAA00000	XL■HDFAZZAAAA00000
<b>Ekip Dip LIG</b>			
800	800	XL■CBFAZZAAAA00000	XL■DBFAZZAAAA00000
1000	1000	XL■EBFAZZAAAA00000	XL■FBFAZZAAAA00000
1200	1200	XL■GBFAZZAAAA00000	XL■HBFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7M Ekip TOUCH LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Touch LSI</b>			
800	800	XS■CEFAZZAAAA00000	XS■DEFAZZAAAA00000
1000	1000	XS■EEFAZZAAAA00000	XS■FEFAZZAAAA00000
1200	1200	XS■GEFAZZAAAA00000	XS■HEFAZZAAAA00000
<b>Ekip Touch LSIg</b>			
800	800	XS■CFFAZZAAAA00000	XS■DFFAZZAAAA00000
1000	1000	XS■EFFAZZAAAA00000	XS■FFFAZZAAAA00000
1200	1200	XS■GFFAZZAAAA00000	XS■HFFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip TOUCH Measuring LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Touch LSI</b>			
800	800	XH■CEFAZZAAAA00000	XH■DEFAZZAAAA00000
1000	1000	XH■EEFAZZAAAA00000	XH■FEFAZZAAAA00000
1200	1200	XH■GEFAZZAAAA00000	XH■HEFAZZAAAA00000
<b>Ekip Touch LSIg</b>			
800	800	XH■CFFAZZAAAA00000	XH■DFFAZZAAAA00000
1000	1000	XH■EFFAZZAAAA00000	XH■FFFAZZAAAA00000
1200	1200	XH■GFFAZZAAAA00000	XH■HFFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip TOUCH Measuring LSI and LSIg, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip Touch LSI</b>			
800	800	XL■CEFAZZAAAA00000	XL■DEFAZZAAAA00000
1000	1000	XL■EEFAZZAAAA00000	XL■FEFAZZAAAA00000
1200	1200	XL■GEFAZZAAAA00000	XL■HEFAZZAAAA00000
<b>Ekip Touch LSIg</b>			
800	800	XL■CFFAZZAAAA00000	XL■DFFAZZAAAA00000
1000	1000	XL■EFFAZZAAAA00000	XL■FFFAZZAAAA00000
1200	1200	XL■GFFAZZAAAA00000	XL■HFFAZZAAAA00000

# Ordering codes for Tmax XT7M

## Circuit breakers



Tmax XT7M – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7M Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
800	800	XS■CGFAZZAAAA00000	XS■DGFAZZAAAA00000
1000	1000	XS■EGFAZZAAAA00000	XS■FGFAZZAAAA00000
1200	1200	XS■GGFAZZAAAA00000	XS■HGFAZZAAAA00000
<b>Ekip TOUCH Measuring LSIG</b>			
800	800	XS■CHFAZZAAAA00000	XS■DHFAZZAAAA00000
1000	1000	XS■EHFAZZAAAA00000	XS■FHFAZZAAAA00000
1200	1200	XS■GHFAZZAAAA00000	XS■HHFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
800	800	XH■CGFAZZAAAA00000	XH■DGFAZZAAAA00000
1000	1000	XH■EGFAZZAAAA00000	XH■FGFAZZAAAA00000
1200	1200	XH■GGFAZZAAAA00000	XH■HGFAZZAAAA00000
<b>Ekip TOUCH Measuring LSIG</b>			
800	800	XH■DHFAZZAAAA00000	XH■DHFAZZAAAA00000
1000	1000	XH■FHFAZZAAAA00000	XH■FHFAZZAAAA00000
1200	1200	XH■HHFAZZAAAA00000	XH■HHFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip TOUCH Measuring LSI</b>			
800	800	XL■CGFAZZAAAA00000	XL■DGFAZZAAAA00000
1000	1000	XL■EGFAZZAAAA00000	XL■FGFAZZAAAA00000
1200	1200	XL■GGFAZZAAAA00000	XL■HGFAZZAAAA00000
<b>Ekip TOUCH Measuring LSIG</b>			
800	800	XL■CHFAZZAAAA00000	XL■DHFAZZAAAA00000
1000	1000	XL■EHFAZZAAAA00000	XL■FHFAZZAAAA00000
1200	1200	XL■GHFAZZAAAA00000	XL■HHFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Distribution circuit breakers

#### Tmax XT, XT7M Ekip HI-TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
800	800	XS■CJFAZZAAAA00000	XS■DJFAZZAAAA00000
1000	1000	XS■EJFAZZAAAA00000	XS■FJFAZZAAAA00000
1200	1200	XS■GJFAZZAAAA00000	XS■HJFAZZAAAA00000
<b>Ekip HI-TOUCH LSIG</b>			
800	800	XS■CLFAZZAAAA00000	XS■DLFAZZAAAA00000
1000	1000	XS■ELFAZZAAAA00000	XS■FLFAZZAAAA00000
1200	1200	XS■GLFAZZAAAA00000	XS■HLFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip HI-TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
800	800	XH■CJFAZZAAAA00000	XH■DJFAZZAAAA00000
1000	1000	XH■EJFAZZAAAA00000	XH■FJFAZZAAAA00000
1200	1200	XH■GJFAZZAAAA00000	XH■HJFAZZAAAA00000
<b>Ekip HI-TOUCH LSIG</b>			
800	800	XH■CLFAZZAAAA00000	XH■DLFAZZAAAA00000
1000	1000	XH■ELFAZZAAAA00000	XH■FLFAZZAAAA00000
1200	1200	XH■GLFAZZAAAA00000	XH■HLFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip HI-TOUCH Measuring LSI and LSIG, protection trip units with Front Terminals

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
<b>Ekip HI-TOUCH LSI</b>			
800	800	XL■CJFAZZAAAA00000	XL■DJFAZZAAAA00000
1000	1000	XL■EJFAZZAAAA00000	XL■FJFAZZAAAA00000
1200	1200	XL■GJFAZZAAAA00000	XL■HJFAZZAAAA00000
<b>Ekip HI-TOUCH LSIG</b>			
800	800	XL■CLFAZZAAAA00000	XL■DLFAZZAAAA00000
1000	1000	XL■ELFAZZAAAA00000	XL■FLFAZZAAAA00000
1200	1200	XL■GLFAZZAAAA00000	XL■HLFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Motor circuit protector (MCP)

#### Tmax XT, XT7M Ekip M I trip unit front terminals (F)

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XS■CMFAZZAAAA00000	–
1000	1000	XS■EMFAZZAAAA00000	–
1200	1200	XS■GMFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip M I trip unit front terminals (F)

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XH■CMFAZZAAAA00000	–
1000	1000	XH■EMFAZZAAAA00000	–
1200	1200	XH■GMFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip M I trip unit front terminals (F)

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XL■CMFAZZAAAA00000	–
1000	1000	XL■EMFAZZAAAA00000	–
1200	1200	XL■GMFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Motor protection circuit breaker (MPCB)

#### Tmax XT, XT7M Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XS■CNFAZZAAAA00000	–
1000	1000	XS■ENFAZZAAAA00000	–
1200	1200	XS■GNFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XH■CNFAZZAAAA00000	–
1000	1000	XH■ENFAZZAAAA00000	–
1200	1200	XH■GNFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip M Touch LRIU trip unit, front terminals (F)

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XL■CNFAZZAAAA00000	–
1000	1000	XL■ENFAZZAAAA00000	–
1200	1200	XL■GNFAZZAAAA00000	–

■ U for UL 80% rated or Q for 100% rated



## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT7M Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XS■CPFAZZAAAA00000	XS■DPFAZZAAAA00000
1000	1000	XS■EPFAZZAAAA00000	XS■FPFAZZAAAA00000
1200	1200	XS■GPFAZZAAAA00000	XS■HPFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XH■CPFAZZAAAA00000	XH■DPFAZZAAAA00000
1000	1000	XH■EPFAZZAAAA00000	XH■FPFAZZAAAA00000
1200	1200	XH■GPFAZZAAAA00000	XH■HPFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G LS/I trip unit front terminals (F)

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XL■CPFAZZAAAA00000	XL■DPFAZZAAAA00000
1000	1000	XL■EPFAZZAAAA00000	XL■FPFAZZAAAA00000
1200	1200	XL■GPFAZZAAAA00000	XL■HPFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M

### Circuit breakers



Tmax XT7M – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT7M Ekip G Touch LSIg trip unit front terminals (F)

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XS■CQFAZZAAAA00000	XS■DQFAZZAAAA00000
1000	1000	XS■EQFAZZAAAA00000	XS■FQFAZZAAAA00000
1200	1200	XS■GQFAZZAAAA00000	XS■HQFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G Touch LSIg trip unit front terminals (F)

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XH■CQFAZZAAAA00000	XH■DQFAZZAAAA00000
1000	1000	XH■EQFAZZAAAA00000	XH■FQFAZZAAAA00000
1200	1200	XH■GQFAZZAAAA00000	XH■HQFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G Touch LSIg trip unit front terminals (F)

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XL■CQFAZZAAAA00000	XL■DQFAZZAAAA00000
1000	1000	XL■EQFAZZAAAA00000	XL■FQFAZZAAAA00000
1200	1200	XL■GQFAZZAAAA00000	XL■HQFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

## Ordering codes for Tmax XT7M Circuit breakers



Tmax XT7M – circuit breaker

### Generator protection circuit breaker

#### Tmax XT, XT7M Ekip G HI-Touch LSIG trip unit front terminals (F)

Frame Size	Amps	S (50kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XS■CRFAZZAAAA00000	XS■DRFAZZAAAA00000
1000	1000	XS■ERFAZZAAAA00000	XS■FRFAZZAAAA00000
1200	1200	XS■GRFAZZAAAA00000	XS■HRFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G HI-Touch LSIG trip unit front terminals (F)

Frame Size	Amps	H (65kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XH■CRFAZZAAAA00000	XH■DRFAZZAAAA00000
1000	1000	XH■ERFAZZAAAA00000	XH■FRFAZZAAAA00000
1200	1200	XH■GRFAZZAAAA00000	XH■HRFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

#### Tmax XT, XT7M Ekip G HI-Touch LSIG trip unit front terminals (F)

Frame Size	Amps	L (100kA)	
		3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
800	800	XL■CRFAZZAAAA00000	XL■DRFAZZAAAA00000
1000	1000	XL■ERFAZZAAAA00000	XL■FRFAZZAAAA00000
1200	1200	XL■GRFAZZAAAA00000	XL■HRFAZZAAAA00000

■ U for UL 80% rated or Q for 100% rated

### Molded case switches

#### Tmax XT XT7D/XT7D M - MCS

Iu	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
1000	XT7S-D M 1000	XSUESFAZZAAAA00000	XSUFSFAZZAAAA00000
	XT7H-D M 1000	XHUESFAZZAAAA00000	XHUFSFAZZAAAA00000
	XT7L-D M 1000	XLUESFAZZAAAA00000	XLUFSFAZZAAAA00000
1200	XT7S-D M 1200	XSUGSFAZZAAAA00000	XSUHSFAZZAAAA00000
	XT7H-D M 1200	XHUGSFAZZAAAA00000	XHUHSFAZZAAAA00000
	XT7L-D M 1200	XLUGSFAZZAAAA00000	XLUHSFAZZAAAA00000

## Ordering codes for Tmax XT accessories

### Execution and installation



Fixed part of plug-in circuit breaker

### Fixed parts

#### Fixed part of plug-in (P) circuit breaker

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	P FP EF	KXT1PFPEF-3	KXT1PFPEF-4
XT1	P FP HR/VR (1)	KXT1EPFPHR-3	KXT1EPFPHR-4
XT2	P FP EF	KXT2PFPEF-3	KXT2PFPEF-4
XT2	P FP HR/VR (1)	KXT2EPFPHR-3	KXT2EPFPHR-4
XT3	P FP EF	KXT3PFPEF-3	KXT3PFPEF-4
XT3	P FP HR/VR (1)	KXT3EPFPHR-3	KXT3EPFPHR-4
XT4	P FP EF	KXT4PFPEF-3	KXT4PFPEF-4
XT4	P FP HR/VR (1)	KXT4EPFPHR-3	KXT4EPFPHR-4
XT5	P FP 400A EF	KXT5UPPEF4-3	KXT5UPPEF4-4
XT5	P FP 400A HR/HR	KXT5UPFPHR4-3	KXT5UPFPHR4-4
XT5	P FP 400A VR/VR	KXT5UPFPVR4-3	KXT5UPFPVR4-4
XT5	P FP 630A EF	KXT5DPPEF6-3	KXT5DPPEF6-4
XT5	P FP 630A HR	KXT5DPFPHR6-3	KXT5DPFPHR6-4
XT5	P FP 630A VR	KXT5DPFPVR6-3	KXT5DPFPVR6-4

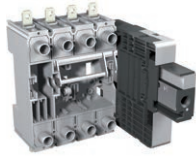
(1) The terminals are factory-mounted in the horizontal position (HR)

#### Fixed part of plug-in (P) frame configurable

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT5	P FP 400A frame configurable	Factory installed only	Factory installed only
XT5	P FP 630A frame configurable	Factory installed only	Factory installed only

## Ordering codes for Tmax XT accessories

### Execution and installation



Fixed part of withdrawable circuit breaker



Fixed part of withdrawable XT7-XT7 M

#### Fixed part of withdrawable (W) circuit breaker

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT2	W FP EF	KXT2WFPEF-3	KXT2WFPEF-4
XT2	W FP HR/VR (1)	KXT2EWFPHR-3	KXT2EWFPHR-4
XT4	W FP EF	KXT4WFPEF-3	KXT4WFPEF-4
XT4	W FP HR/VR (1)	KXT4EWFPHR-3	KXT4EWFPHR-4
XT5	W FP 400A EF	KXT5UWFPEF4-3	KXT5UWFPEF4-4
XT5	W FP 400A HR/HR	KXT5UWFPHR4-3	KXT5UWFPHR4-4
XT5	W FP 400A VR/VR	KXT5UWFVRF4-3	KXT5UWFVRF4-4
XT5	W FP 630A EF	KXT5DWFPEF6-3	KXT5DWFPEF6-4
XT5	W FP 630A HR	KXT5DWFPHR6-3	KXT5DWFPHR6-4
XT5	W FP 630A VR	KXT5DWFVRF6-3	KXT5DWFVRF6-3
XT6	W FP EF	KXT6DWFPEFF-3	KXT6DWFPEFF-4
XT6	W FP HR	KXT6DWFPHRF-3	KXT6DWFPHRF-4
XT6	W FP VR	KXT6DWFVRF-3	KXT6DWFVRF-4
XT7-XT7 M	W FP EF	KXT7DWFPEFF-3	KXT7DWFPEFF-4
XT7-XT7 M	W FP HR	KXT7DWFPHRF-3	KXT7DWFPHRF-4

#### Fixed part of withdrawable (W) frame configurable

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT5	W FP 400A frame configurable	Factory installed only	Factory installed only
XT5	W FP 630A frame configurable	Factory installed only	Factory installed only
XT6	W FP XT6 frame configurable	Factory installed only	Factory installed only

## Conversion kit

#### Conversion kit to convert circuit breaker from fixed to moving part of a plug-in unit

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	P MP Kit	KXT1PMP-3	KXT1PMP-4
XT2	P MP Kit	KXT2PMP-3	KXT2PMP-4
XT3	P MP Kit	KXT3PMP-3	KXT3PMP-4
XT4	P MP Kit	KXT4PMP-3	KXT4PMP-4
XT5	P MP Kit 400A	KXT5PMP400-3	KXT5PMP400-4
XT5	P MP Kit 630A	KXT5PMP600-3	KXT5PMP600-4

## Ordering codes for Tmax XT accessories

### Execution and installation



— 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 kit for turning a fixed part of plug-in version into a fixed part of withdrawable version circuit breaker

#### Conversion kit to convert circuit breaker from fixed to moving part of a withdrawable unit

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT2	W MP kit	KXT2WMP-3	KXT2WMP-4
XT4	W MP kit	KXT4WMP-3	KXT4WMP-4
XT5	W MP kit 400A	KXT5WMP400-3	KXT5WMP400-4
XT5	W MP kit 630A	KXT5WMP600-3	KXT5WMP600-4
XT6	W MP kit	KXT6WMP-3	KXT6WMP-4
XT7-XT7 M	W MP kit	KXT7WMP-3	KXT7WMP-4

#### Conversion kit to convert circuit breaker fixed part from plug-in to a withdrawable unit

Size	Type	U.S. Ordering Code
XT2	XT2 FP P>W kit	KXT2FPtoFPW
XT4	XT4 FP P>W kit	KXT4FPtoFPW
XT5	XT5 FP P>W kit	KXT5FPtoFPW

#### Conversion kit to convert an RC from fixed to a plug-in unit

Size	Type	U.S. Ordering Code
XT2	XT2 P MP RC Sel 4p kit	KXT2EPMPRC-4
XT4	XT4 P MP RC Sel 4p kit	KXT4EPMPRC-4
XT5	XT5 400A P MP RC Sel 4p kit	KXT5PMPRC400-4
XT5	XT5 630A P MP RC Sel 4p kit	KXT5PMPRC600-4

#### Conversion kit to convert an RC from plug-in into a withdrawable unit

Size	Type	U.S. Ordering Code
XT2	XT2 W MP RC Sel 4p kit	KXT2EWMPRC-4
XT4	XT4 W MP RC Sel 4p kit	KXT4EWMPRC-4
XT5	XT5 400A W MP RC Sel 4p kit	KXT5WMPRC400-4
XT5	XT5 630A W MP RC Sel 4p kit	KXT5WMPRC600-4

## Ordering codes for Tmax XT accessories

### Execution and installation



Fixed part socket-plug connector

### Plug and socket adapters

#### Socket plug connector on rear of the panel

Size	Type	U.S. Ordering Code
XT1...XT6	Socket-plug panel connector with 3 pins	KXTAE3PINCON
XT1...XT6	Socket-plug panel connector with 6 pins	KXTAE6PINCON
XT1...XT6	Socket-plug panel connector with 9 pins	KXTAE9PINCON
XT1...XT6	Socket-plug panel connector with 15 pins	KXTAE15PINCON



Socket-plug panel connector

#### Fixed part socket-plug connector

Size	Type	U.S. Ordering Code
XT2-XT4 – XT5-XT6	Socket-plug connector for moving part 12 pins	KXTCE12PINMPCON
XT2-XT4 – XT5-XT6	Socket-plug connector for fixed part 12 pins	KXTCE12PINFPCON



DIN guide

### Bracket for fixing on DIN-rail

#### Bracket for fixing onto DIN-rail

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	KIT DIN50022	KXT1EDIN-3	KXT1EDIN-4
XT1	KIT DIN50022 + RC Low 200 mm	–	KXT1EDINRCSELPL
XT1	KIT DIN50022 + RC Sel/RC Inst	KXT1EDINRCPL	KXT1EDINRCPL
XT2	KIT DIN50022	KXT2DIN-3	KXT2DIN-4
XT3	KIT DIN50022	KXT3EDIN-3	KXT3EDIN-4
XT3	KIT DIN50022 + RC Inst / RC Sel	KXT3EDINRCPL	KXT3EDINRCPL
XT4	KIT DIN50022	KXT4DIN-3	KXT4DIN-4

## Ordering codes for Tmax XT accessories

Execution and installation, power connection

### Floor fixing plate

#### Floor fixing plate

Size	Type	U.S. Ordering Code
XT7-XT7 M	Floor fixing plate for fixed unit	ZE1FFPF

### Cable rack

#### Cable rack

Size	Type	U.S. Ordering Code
XT5-XT6	Cable rack for fixed and plug-in circuit breaker	KXTFACCRCK

### Power connection

#### Terminals for circuit breaker

Size	Type	3 pcs (½ kit for 3p)	4 pcs (½ kit for 4p)
		U.S. Ordering Code	U.S. Ordering Code
XT1	F front terminals	KXT1F-3PC	KXT1F-4PC
XT1	EF extended front terminals	KXT1EF-3PC	KXT1EF-4PC
XT1	ES extended spread front terminals	KXT1ES-3PC	KXT1ES-4PC
XT1	FC Cu terminal for Cu cables 14-1/0 AWG (1)	KXT1CU-3PC	KXT1CU-4PC
XT1	FC Cu terminal for Cu cables 14-1/0 AWG	KXT1CUMCP-3PC	–
XT1	FC CuAl terminals for CuAl cables 10-2/0 AWG	KXT1CUAL1-3PC	KXT1CUAL1-4PC
XT1	FC CuAl terminals AuxV for CuAl cables 10-2/0 AWG	KXT1CUAL1C-3PC	KXT1CUAL1C-4PC
XT1	MC Cu multi-cable terminal for Cu cables 6x14-2 AWG	KXT1MC-3PC	KXT1MC-4PC
XT1	R rear adjustable terminal (1)	KXT1ER-3PC	KXT1ER-4PC
XT1	R-RC rear terminals for residual current	–	KXT1ERRC-4PC
XT1	FB flexible busbar terminals	KXT1EFB-3PC	KXT1EFB-4PC
XT2	F front terminals	KXT2F-3PC	KXT2F-4PC
XT2	EF extended front terminals	KXT2EF-3PC	KXT2EF-4PC
XT2	ES extended spread front terminals	KXT2ES-3PC	KXT2ES-4PC
XT2	FC CuAl terminals for CuAl cables 14-1/0 AWG	KXT2CUAL1-3PC	KXT2CUAL1-4PC



Front extended terminal – EF



Front extended spread terminal – ES



FC Cu terminal



FC CuAl external terminal



FC CuAl internal terminal



## Ordering codes for Tmax XT accessories

### Power connection



Front extended terminal – EF



Front extended spread terminal – ES



FC Cu terminal



FC CuAl external terminal



FC CuAl internal terminal

#### Terminals for circuit breaker (cont.)

Size	Type	3 pcs (½ kit for 3p)	4 pcs (½ kit for 4p)
		U.S. Ordering Code	U.S. Ordering Code
XT2	FC CuAl terminals for CuAl cables 10-2/0 AWG	KXT2CUAL2-3PC	KXT2CUAL2-4PC
XT2	FC CuAl terminals AuxV for CuAl cables 10-2/0 AWG	KXT2CUAL2C-3PC	KXT2CUAL2C-4PC
XT2	FC Cu terminals for Cu cables 14-1/0 AWG	KXT2CU-3PC	KXT2CU-4PC
XT2	MC Cu multi-cable terminals for Cu cables 6x14-2 AWG	KXT2MC-3PC	KXT2MC-4PC
XT2	R rear adjustable terminals	KXT2ER-3PC	KXT2ER-4PC
XT2	FB flexible busbar terminals	KXT2EFB-3PC	KXT2EFB-4PC
XT3	F front terminals	KXT3F-3PC	KXT3F-4PC
XT3	EF extended front terminals	KXT3EF-3PC	KXT3EF-4PC
XT3	ES extended spread front terminals	KXT3ES-3PC	KXT3ES-4PC
XT3	FC CuAl terminals AuxV for CuAl cables 14-1/0 AWG	KXT3CUAL1C-3PC	KXT3CUAL1C-4PC
XT3	FC CuAl terminals for CuAl cables 14-1/0 AWG	KXT3CUAL1-3PC	KXT3CUAL1-4PC
XT3	FC CuAl terminals AuxV for CuAl cables 4 AWG-300 Kcmil	KXT3CUAL2C-3PC	KXT3CUAL2C-4PC
XT3	FC CuAl terminals for CuAl cables 4 AWG-300 Kcmil	KXT3CUAL2-3PC	KXT3CUAL2-4PC
XT3	FC Cu terminals for Cu cables 10-250 AWG	KXT3CU-3PC	KXT3CU-4PC
XT3	MC Cu multi-cable terminals for Cu cables 6x12-2 AWG	KXT3MC-3PC	KXT3MC-4PC
XT3	R rear adjustable terminals	KXT3ER-3PC	KXT3ER-4PC
XT3	FB flexible busbar terminals	KXT3EFB-3PC	KXT3EFB-4PC
XT3	R-RC rear terminal for RC Inst-Sel	-	KXT3ERRC-4PC
XT4	F front terminals	KXT4F-3PC	KXT4F-4PC
XT4	EF extended front terminals	KXT4EF-3PC	KXT4EF-4PC
XT4	ES extended spread front terminals	KXT4ES-3PC	KXT4ES-4PC
XT4	FC CuAl terminals for CuAl cables 14-1/0 AWG	KXT4CUAL1-3PC	KXT4CUAL1-4PC
XT4	FC CuAl terminals AuxV for CuAl cables 14-1/0 AWG	KXT4CUAL1C-3PC	KXT4CUAL1C-4PC
XT4	FC CuAl terminals for CuAl cables 4 AWG-300 Kcmil	KXT4CUAL2-3PC	KXT4CUAL2-4PC
XT4	FC CuAl terminals AuxV for CuAl cables 4 AWG-300 Kcmil	KXT4CUAL2C-3PC	KXT4CUAL2C-4PC
XT4	FC CuAl terminals for CuAl cables 3/0 AWG-350 Kcmil (1)	KXT4CUAL3-3PC	KXT4CUAL3-4PC

## Ordering codes for Tmax XT accessories

### Power connection



Front extended terminal – EF



Front extended spread terminal – ES



FC Cu terminal



FC CuAl external terminal



FC CuAl internal terminal

#### Terminals for circuit breaker (cont.)

Size	Type	3 pcs (½ kit for 3p)	4 pcs (½ kit for 4p)
		U.S. Ordering Code	U.S. Ordering Code
XT4	FC CuAl terminals AuxV for CuAl cables 3/0 AWG-350 Kcmil	KXT4CUAL3C-3PC	KXT4CUAL3C-4PC
XT4	FC Cu terminals for Cu cables 10-250 AWG	KXT4CU-3PC	KXT4CU-4PC
XT4	MC Cu multi-cable terminals for Cu cables 6x12-2 AWG	KXT4MC-3PC	KXT4MC-4PC
XT4	R rear adjustable terminals	KXT4ER-3PC	KXT4ER-4PC
XT4	FB flexible busbar terminals	KXT4EFB-3PC	KXT4EFB-4PC
XT5	F front Terminals	KXT5F-3PC	KXT5F-4PC
XT5	EF extended front terminals	KXT5EF-3PC	KXT5EF-4PC
XT5	ES extended spread front terminals	KXT5ES-3PC	KXT5ES-4PC
XT5	FC CuAl 1x6AWG-350kcmi	KXT5CUAL350K-3PC	KXT5CUAL350K-4PC
XT5	FC CuAl 1x250-500kcmil	KXT5CUAL500K-3PC	KXT5CUAL500K-4PC
XT5	FC CuAl 2x2/0AWG-500kcmil	KXT5CUAL2X500K-3PC	KXT5CUAL2X500K-4PC
XT5	FC CuAl 1x500kcmil AuxV	KXT5CUAL500KC-3PC	KXT5CUAL500KC-4PC
XT5	FC CuAl 1x350kcmil AuxV	KXT5CUAL350KC-3PC	KXT5CUAL350KC-4PC
XT5	FC CuAl 2x500kcmil AuxV	KXT5CUAL2X500KC-3	KXT5CUAL2X500KC-4
XT5	R rear adjustable Terminals	KXT5R-3PC	KXT5R-4PC
XT6	F front terminals	KXT6F-3PC	KXT6F-4PC
XT6	EF extended front terminals	KXT6EF-3PC	KXT6EF-4PC
XT6	ES extended spread front terminals Upper	KXT6ESUP-3PC	KXT6ES-4PC
XT6	ES extended spread front terminals lower	–	KXT6ES-4PC
XT6	FC CuAl 2x250-500kcmil	KXT6CUAL2X500K-3PC	KXT6CUAL2X500K-4PC
XT6	FC CuAl 3x2/0AWG-400kcmil	KXT6CUAL3X400K-3PC	KXT6CUAL3X400K-4PC
XT6	FC CuAl 2x500kcmil AuxV	KXT6CUAL2X500KC-3	KXT6CUAL2X500KC-4
XT6	FC CuAl 3x400kcmil AuxV	KXT6CUAL3X400KC-3	KXT6CUAL3X400KC-4
XT6	R rear adjustable terminals	KXT6R-3PC	KXT6R-4PC

## Ordering codes for Tmax XT accessories

### Power connection

#### Terminals loose supply for fixed circuit breaker

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT7-XT7 M	F front terminals	ZE1FF	ZE1FF-4
XT7-XT7 M	EF extended front terminals	KXT7EF-3PC	KXT7EF-4PC
XT7-XT7 M	ES extended spread front terminals upper	KXT7ESUP-3PC	KXT7ES-4PC
XT7-XT7 M	ES extended spread front terminals Lower	KXT7ESLOW-3PC	KXT7ES-4PC
XT7-XT7 M	FC CuAl 4x4/0 AWG – 500 kcmil	KXT7CUAL4X500K-3PC	KXT7CUAL4X500K-4PC
XT7-XT7M	FC CuAl 3x500-750kcmil	–	–
XT7-XT7 M	HR/VR – rear terminals	ZE1HRVRF	ZE2HRVRF-4

#### Terminals for fixed part

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	EF – Front extended terminals	KXT1EEFFP-3	KXT1EEFFP-4
XT1	HR/VR – Rear terminals	KXT1ERFP-3	KXT1ERFP-4
XT2	EF – Front extended terminals	KXT2EEFFP-3	KXT2EEFFP-4
XT2	HR/VR – Rear terminals	KXT2ERFP-3	KXT2ERFP-4
XT3	EF – Front extended terminals	KXT3EEFFP-3	KXT3EEFFP-4
XT3	HR/VR – Rear terminals	KXTEERFP-3	KXTEERFP-4
XT4	EF – Front extended terminals	KXT4EEFFP-3	KXT4EEFFP-4
XT4	HR/VR – Rear terminals	KXTEERFP-3	KXTEERFP-4
XT5	EF – Front extended terminals 400 A	KXT5EEFFPUL4-3PC	KXT5EEFFPUL4-4PC
XT5	HR/VR – Rear terminals UL 400 A	KXT5HRVRFPU4-3PC	KXT5HRVRFPU4-4PC
XT5	HR/VR – Rear terminals (same length) 400 A	KXT5HRVRFPSL4-3PC	KXT5HRVRFPSL4-4PC
XT5	EF – Front extended terminals 630 A	KXT5EEFFP-3PC	KXT5EEFFP-4PC
XT5	HR – Rear horizontal terminals 630 A	KXT5HRFP-3PC	KXT5HRFP-4PC
XT5	VR – Rear vertical terminals 630 A	KXT5VRFP6-3PC	KXT5VRFP6-4PC
XT6	EF – Front extended terminals	KXT6EEFFP-3PC	KXT6EEFFP-4PC
XT6	HR – Rear horizontal terminals	KXT6HRFP-3PC	KXT6HRFP-4PC
XT6	VR – Rear vertical terminals	KXT6VRFP-3PC	KXT6VRFP-4PC



EF terminal for fixed part

## Ordering codes for Tmax XT accessories

### Power connection



HR terminals for fixed part

#### Terminals loose supply for fixed parts

Size	Type	3 pcs (½ kit for 3p)	4 pcs (½ kit for 4p)
		U.S. Ordering Code	U.S. Ordering Code
XT7-XT7 M	EF – Front extended terminals	ZE1EFW	ZE1EFW-4
XT7-XT7 M	ES – Front extended spread terminals	ZE1ESW	ZE1ESW-4
XT7-XT7 M	HR/VR – Rear terminals	KXT7HRVRW-3PC	KXT7HRVRW-4PC
XT7-XT7 M	SHR – Rear spread horizontal terminals	ZE1SHRWE	ZE1SHRWE-4
XT7-XT7 M	FC CuAl 4x4/0 AWG – 500 kcmil	ZE1LUGW	ZE1LUGW-4

#### Terminals installed for fixed parts

Size	Type	3 pcs (½ kit for 3p)	4 pcs (½ kit for 4p)
		U.S. Ordering Code	U.S. Ordering Code
XT7-XT7 M	EF Extended front terminals upper	–	–
XT7-XT7 M	EF Extended front terminals lower	–	–
XT7-XT7 M	ES Extended spread front terminals upper	–	–
XT7-XT7 M	ES Extended spread front terminals lower	–	–
XT7-XT7 M	SHR-Rear spread horizontal terminals upper	–	–
XT7-XT7 M	SHR-Rear spread horizontal terminals lower	–	–
XT7-XT7 M	FC CuAl 4x4/0 AWG – 500kcmil upper	–	–
XT7-XT7 M	FC CuAl 4x4/0 AWG – 500kcmil lower	–	–

## Ordering codes for Tmax XT accessories

Power connection and signaling



Fixed part adapter

### Adapter for mounting the terminals of the fixed circuit breaker on the fixed part

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	XT1 ADP adapter fixed part (2 pieces)	KXT1ADP-3	KXT1ADP-4
XT2	XT2 ADP adapter fixed part (2 pieces)	KXT2ADP-3	KXT2ADP-4
XT3	XT3 ADP adapter fixed part (2 pieces)	KXT3EADP-3	KXT3EADP-4
XT4	XT4 ADP adapter fixed part (2 pieces)	KXT4ADP-3	KXT4ADP-4
XT5	XT5 400A ADP adapter fixed part (2 pieces)	KXT5ADP400-3	KXT5ADP400-4
XT5	XT5 630A ADP adapter fixed part (2 pieces)	KXT5ADP600-3	KXT5ADP600-4
XT6	XT6 ADP adapter fixed part (2 pieces)	KXT6ADP-3	KXT6ADP-4

Note: when using an ADP with the F/EF/MC terminal, also order the "kit F front terminals"

## Signaling

Auxiliary contacts – AUX



AUX uncabled

### Auxiliary contacts – AUX

Size	Type	Fixed/plug-in
		U.S. Ordering Code
<b>Uncabled version</b>		
XT1-XT3	AUX 250 V AC	KXTAAUX
XT1-XT3	AUX 24 V DC	KXTAAUXD
<b>Cabled version</b>		
XT1	AUX-C 3Q 250 V AC Left	KXT1AXC3QL
XT1-XT3	AUX-C 1Q + 1SY 250V	KXTAAXCQSYFP
XT1-XT3	AUX-C 2Q + 1SY 250V	KXTAAXC2QSYFP
XT1-XT3	AUX-C 1Q + 1SY 24 V DC	KXTAAXCDQSYFP
XT3	AUX-C 3Q + 1SY 250V	KXTDAXC3QSYFP
XT3	AUX-C 3Q + 1SY 24 V DC	KXTDAXCD3QSYFP
XT3	AUX-C 3Q 250 V AC Left	KXT3AXC3QL

## Ordering codes for Tmax XT accessories

### Power connection and signaling



AUX cabled

#### Auxiliary contacts – AUX

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT2-XT4	AUX 250 V AC	KXTAAUX	–
XT2-XT4	AUX-S51 250 V AC	KXTCAXS51	–
XT2-XT4	AUX 24 V DC	KXTAAUXD	–
XT2-XT4	AUX-S51 24 V DC	KXTCAXDS51	–
<b>Cabled version</b>			
XT2-XT4	AUX-C 3Q 250 V AC Left	KXTCAXC3QL	–
XT2-XT4	AUX-C 1Q + 1SY 250 V AC	KXTAAXCQSYFP	KXTCAXCQSYW
XT2-XT4	AUX-C 2Q + 1SY 250 V AC	KXTAAXC2QSYFP	–
XT2-XT4	AUX-C 2Q + 2SY + 1SA 250 V AC	KXTCAXC2Q2SY51FP	KXTCAXC2Q2SY51W
XT2-XT4	AUX-C 3Q + 1SY 250 V AC	KXTDAXC3QSYFP	KXTCAXC3QSYW
XT2-XT4	AUX-C 3Q + 2SY 250 V AC	KXTCAXC3Q2SYFP	KXTCAXC3Q2SYW
XT2-XT4	AUX-S51-C 250 V AC	KXTCAXCS51FP	KXTCAXCS51W
XT2-XT4	AUX-C 1Q + 1SY 24 V DC	KXTAAXCDQSYFP	KXTCAXCDQSYW
XT2-XT4	AUX-C 3Q + 1SY 24 V DC	KXTDAXCD3QSYFP	KXTCAXCD3QSYW
XT2-XT4	AUX-S51-C 24 V DC	KXTCAXDS51FP	KXTCAXDS51W
XT2-XT4	AUX-C 1Q + 1SY 400 V AC	KXTCAXC4QSYFP	KXTCAXC4QSYW
XT2-XT4	AUX-C 2Q 400 V AC	KXTCAXC4Q2FP	KXTCAXC4Q2W



AUX for withdrawable

#### Auxiliary contacts – AUX

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT5	AUX 250 V AC	KXTAAUX	–
XT5	AUX 24 V DC	KXTAAUXD	–
<b>Cabled version</b>			
XT5	AUX-C 1Q + 1SY 250 V AC left	KXT5AUXC2QYFP	–
XT5	AUX-C 1Q + 1SY 250 V AC	KXTAAXCQSYFP	KXT5AUXC2QYW
XT5	AUX-C 2Q + 1SY 250 V AC	KXTAAXC2QSYFP	KXT5AUXC2Q3YW
XT5	AUX-C 3Q + 1SY 250 V AC	KXTDAXC3QSYFP	KXT5AUXC2Q3YW
XT5	AUX-S51-C 250 V AC	KXTCAXCS51FP	KXT5AUXC2S51W
XT5	AUX-S52-C 250 V AC	KXTFAUXCDS52FP	KXT5AUXC2S52W
XT5	AUX-C 1Q + 1SY 24 V DC left	KXT5AUXCDQYFP	–
XT5	AUX-C 1Q + 1SY 24 V DC	KXTAAXCDQSYFP	KXT5AUXCDQYW
XT5	AUX-C 3Q + 1SY 24 V DC	KXTDAXCD3QSYFP	KXT5AUXCDQ3YW
XT5	AUX-S51-C 24 V DC	KXTCAXDS51FP	KXT5AUXCDS51W
XT5	AUX-S52-C 24 V DC	KXTFAUXCDS52FP	KXT5AUXCDS52W
XT5	AUX-C 1Q + 1SY 400 V AC	KXT5AUXC4QYFP	KXT5AUXC4QYW
XT5	AUX-C 2Q 400 V AC	KXT5AUXC4Q2FP	KXT5AUXC4Q2W

## Ordering codes for Tmax XT accessories

### Signaling

#### Auxiliary contacts – AUX

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT6	AUX 250 V AC	KXTAAUX	–
XT6	AUX 24 V DC	KXTAAUXD	–
<b>Cabled version</b>			
XT6	AUX-C 1Q + 1SY 250 V AC	KXTAAXCQSYFP	KXT6AUXC2QYW
XT6	AUX-C 2Q + 1SY 250 V AC	KXTAAXC2QSYFP	KXT6AUXC2Q2YW
XT6	AUX-C 3Q + 1SY 250 V AC	KXTDAXC3QSYFP	KXT6AUXC2Q3YW
XT6	AUX-S51-C 250 V AC	KXTCAXCS51FP	KXT6AUXC2S51W
XT6	AUX-S52-C 250 V AC	KXTFAUXCDS52FP	KXT6AUXC2S52W
XT6	AUX-C 1Q + 1SY 24 V DC	KXTAAXCDQSYFP	KXT6AUXCDQYW
XT6	AUX-C 3Q + 1SY 24 V DC	KXTDAXCD3QSYFP	KXT6AUXCDQ3YW
XT6	AUX-S51-C 24 V DC	KXTCAXDS51FP	KXT6AUXCDS51W
XT6	AUX-S52-C 24 V DC	KXTFAUXCDS52FP	KXT6AUXCDS52W



Open/close auxiliary contacts – AUX

#### Auxiliary contacts – AUX

Size	Type	Fixed/plug-in
		U.S. Ordering Code
XT7-XT7 M	AUX 4Q 400V	ZE1AUX4
XT7-XT7 M	AUX 4Q 24 V DC	ZE1AUX4D
XT7-XT7 M	AUX 2Q 400VAC + 2Q 24VDC	ZE1AUX2-2D
XT7-XT7 M	AUX S51 250V	ZE1BA
XT7-XT7 M	AUX S51 24V	ZE1BAD
XT7	AUX 1SY 400V	KXT7AUX4Y
XT7	AUX 1SY 24V	KXT7AUXDY
XT7	AUX 1S52 250V	KXT7AUX2S52
XT7	AUX 1S52 24V	KXT7AUXDS52
XT7 M	AUX 15Q 400V	ZE1AUX15
XT7 M	AUX 15Q 24V	ZE1AUX15D
XT7 M	RTC 250V	ZE1RTC
XT7 M	RTC 24V	ZE1RTCD
XT7 M	AUX S33 M/2 250V	KXT7MAUX2S33M2
XT7 M	AUX S33 M/2 24V	KXTMAUXDS33M2



Terminal for auxiliary connection

#### Terminals for auxiliary connection

Size	Type	U.S. Ordering Code
XT7-XT7 M	Terminals 10 pcs	ZEATB10

## Ordering codes for Tmax XT accessories

### Signaling



Auxiliary position contact  
– AUP

### Auxiliary position contacts – AUP

#### Auxiliary position contacts – AUP

Size	Type	U.S. Ordering Code
XT1-XT3	AUP-I – Four racked-in contacts 250 V AC	KXTAAUP250IN
XT1-XT3	AUP-I – Four racked-in contacts 24 V DC	KXTAAUP24IN
XT2-XT4	AUP-I – Four racked-in contacts 250 V AC	KXTAAUP250IN
XT2-XT4	AUP-I – Four racked-in contacts 24 V DC	KXTAAUP24IN
XT2-XT4	AUP-R – Two racked-out contacts 250 V AC	KXTCAUP250W
XT2-XT4	AUP-R – Two racked-out contacts 24 V DC	KXTCAUP24W
XT5-XT6	AUP-I – Three Racked-in contacts 250 V AC	KXTFAUP250IN
XT5-XT6	AUP-I – Three Racked-in contacts 24 V DC	KXTFAUP24IN
XT5-XT6	AUP-T – One Test contact 250 V AC	KXTF250TEST
XT5-XT6	AUP-T – One Test contact 24 V DC	KXTF24TEST
XT5-XT6	AUP-R – One Racked-out contact 250 V AC	KXTF250OUT
XT5-XT6	AUP-R – One Racked-out contact 24 V DC	KXTF24OUT
XT7-XT7 M	AUP 6 contacts 24V	ZE1AUPD
XT7-XT7 M	AUP 6 contacts 400V	ZE1AUP



Early auxiliary contacts  
in the handle – AUE

### Early auxiliary contacts – AUE

#### Early auxiliary contacts – AUE

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT1-XT3	AUE – Two contacts in rotary handle RHx (closed)	KXTAAUECLFP	–
XT1-XT3	AUE – Two contacts in rotary handle RHx (open)	KXTDAUEOPFP	–
XT2-XT4	AUE – Two contacts in rotary handle RHx (closed)	KXTAAUECLFP	KXTCAUECLW
XT2-XT4	AUE – Two contacts in rotary handle RHx (open)	KXTDAUEOPFP	KXTCAUEOPW
XT5-XT6	AUE – Two contacts in rotary handle RHx (closed)	KXTFAUECLFP	KXTFAUECLW
XT7	AUE – Two contacts in circuit breaker (closed) (1)	KXT7AUECL	KXT7AUECL

(1) Contacts that can work only with a rotary handle



## Ordering codes for Tmax XT accessories

### Operating mechanism

#### Rotary and flange handle operating mechanism



Direct rotary handle – RHD



Transmitted rotary handle – RHE

#### Rotary handles XT1-XT3

Size	Type	Fixed/plug-in
		U.S. Ordering Code
XT1-XT3	RHD Normal direct handle	KXTBRHDSTFP
XT1-XT3	RHD Direct emergency handle	KXTBRHDEMFP
XT1-XT3	RHE Normal transmitted handle	KXTBRHESTFP
XT1-XT3	RHE Emergency transmitted handle	KXTBRHEEMFP
XT1-XT3	RHE-PL Normal extended handle + 2PLL	KXTBRHESTFPPLK
XT1-XT3	RHE-PL Emergency extended handle + 2PLL	KXTBRHEEMFPPLK
XT1-XT3	RHS-L Normal left lateral handle	KXTBRHSLSTFP
XT1-XT3	RHS-L Emergency left lateral handle	KXTBRHSLEMFP
XT1-XT3	RHS-R Normal right lateral handle	KXTBRHSRSTFP
XT1-XT3	RHS-R Emergency right lateral handle	KXTBRHSREMFP

#### Spare parts for transmitted handle

XT1-XT3	RHE_B Base for transmitted Handle	KXTBRHEBFP
XT1-XT3	RHE-B base for extended handle + 2PLL	KXTBRHEBFPPLK
XT1-XT3	RHE_S Rod of 500 mm	KXTARHES500
XT1-XT3	RHE_H Normal transmitted handle	KXTARHEHST
XT1-XT3	RHE_H Emergency transmitted handle	KXTARHEHEM
XT1-XT3	LH Normal large handle	KXTALHNDLST
XT1-XT3	LH Large emergency handle	KXTALHNDLEM

## Ordering codes for Tmax XT accessories

### Operating mechanism



Large handle – LH



Lateral handle – RHS

#### Rotary handles XT2-XT4

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT2-XT4	RHD Normal direct handle	KXTCRHDSTFP	KXTCRHDSTW
XT2-XT4	RHD Direct emergency handle	KXTCRHDEMFP	KXTCRHDEMW
XT2-XT4	RHE Normal transmitted handle	KXTCRHESTFP	KXTCRHESTW
XT2-XT4	RHE Emergency transmitted handle	KXTCRHEEMFP	KXTCRHEEMW
XT2-XT4	RHE-PL Normal extended handle + 2PLL	KXTCRHESTFPPLK	KXTCRHESTWPLK
XT2-XT4	RHE-PL Emergency extended handle + 2PLL	KXTCRHEEMFPPLK	KXTCRHEEMWPLK
XT2-XT4	RHS-L Normal left lateral handle	KXTCRHSLSSTFP	–
XT2-XT4	RHS-L Emergency left lateral handle	KXTCRHSLEMFP	–
XT2-XT4	RHS-R Normal right lateral handle	KXTCRHSRSTFP	–
XT2-XT4	RHS-R Emergency right lateral handle	KXTCRHSREMFP	–

#### Spare parts for transmitted handle

XT2-XT4	RHE_B Base for transmitted handle	KXTCRHEBFP	KXTCRHEBW
XT2-XT4	RHE-B base for extended handle + 2PLL	KXTCRHEBFPPLK	KXTCRHEBWPLK
XT2-XT4	RHE_S Rod of 500mm	KXTARHES500	–
XT2-XT4	Telescopic Rod kit	KXTHRHETR	–
XT2-XT4	RHE_H Normal transmitted handle	KXTARHEHST	–
XT2-XT4	RHE_H Emergency transmitted handle	KXTARHEHEM	–
XT2-XT4	LH Normal large handle	KXTALHNDLST	–
XT2-XT4	LH Large emergency handle	KXTALHNDLEM	–

## Ordering codes for Tmax XT accessories

### Operating mechanism



(RHD) direct rotary handle + 2PLL

#### Rotary handles XT5

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT5	RHD Normal direct handle	KXT5RHDSTFP	KXT5RHDSTW
XT5	RHD Normal direct handle + 2PLL	KXT5RHDSTFP2PL	KXT5RHDSTW2PL
XT5	RHD Direct emergency handle	KXT5RHDEMFP	KXT5RHDEMW
XT5	RHE Normal transmitted handle	KXT5RHESTFP	KXT5RHESTW
XT5	RHE Emergency transmitted handle	KXT5RHEEMF	KXT5RHEEMW
<b>Spare parts for transmitted handle</b>			
XT5	RHE_B Base for transmitted handle	KXT5RHEBFP	KXT5RHEBW
XT5	RHE_B Base for transmitted handle + 2PLL	KXT5RHEBFP2PL	KXT5RHEBW2PL
XT5	RHE_S Rod of 500mm	-	-
XT5	Telescopic rod kit	KXTHRHETR	-
XT5	RHE_H Normal transmitted handle	KXT5RHESTH	KXT5RHESTH
XT5	RHE_H Emergency transmitted handle	KXT5RHEEMH	KXT5RHEEMH
XT5	Conversion kit RHE->RHS	KXT5RHE2RHS	-



(RHE) extended rotary handle

#### Rotary handles XT6

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT6	RHD Normal direct handle	KXT6RHDSTFP	KXT6RHDSTW
XT6	RHD Normal direct handle + 2PLL	KXT6RHDSTFP2PL	KXT6RHDSTW2PL
XT6	RHD Direct emergency handle	KXT6RHDEMFP	KXT6RHDEMW
XT6	RHE Normal transmitted handle	KXT6RHESTFP	KXT6RHESTW
XT6	RHE Emergency transmitted handle	KXT6RHEEMF	KXT6RHEEMW
<b>Spare parts for flange handle</b>			
XT6	RHE_B Base for transmitted handle	KXT6RHEBFP	KXT6RHEBW
XT6	RHE_B Base for transmitted handle + 2PLL	KXT6RHEBFP2PL	KXT6RHEBW2PL
XT6	RHE_S Rod of 500 mm	-	-
XT6	Telescopic rod kit	KXTHRHETR	-
XT6	RHE_H Normal transmitted handle	KXT7RHESTH	-
XT6	RHE_H Emergency transmitted handle	KXT7RHEEMH	-

## Ordering codes for Tmax XT accessories

### Operating mechanism

#### Toggle extension

Size	Type	Fixed/plug-in
		U.S. Ordering Code
XT5...XT7	Toggle extension XT5-XT6-XT7	KXTJTGLEXT



NFWA handle

#### Toggle extension

Size	Type	U.S. Ordering Code
XT1...XT4	RHE NFPA handle	-

#### Rotary handles XT7

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT7	RHD Normal direct handle	KXT7RHDSTFW	KXT7RHDSTFW
XT7	RHD Normal direct handle + 2PLL	KXT7RHDSTFW2PL	KXT7RHDSTFW2PL
XT7	RHD Direct emergency handle	KXT7RHDEMFW	KXT7RHDEMFW
XT7	RHE Normal transmitted handle	KXT7RHEST	KXT7RHEST
XT7	RHE Emergency transmitted handle	KXT7RHEEM	KXT7RHEEM



Direct rotary handle + 2PLL XT7 - RHD



Transmitted rotary handle + 2PLL XT7 - RHE

#### Spare parts for transmitted handle

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT7	RHE_B Base for transmitted handle	KXT7RHEB	KXT7RHEB
XT7	RHE_B Base for transmitted handle + 2PLL	KXT7RHEB2PL	KXT7RHEB2PL
XT7	RHE_S Rod of 500mm	-	-
XT7	Telescopic Rod kit	KXTHRHETR	-
XT7	RHE_H Normal transmitted handle	KXT7RHESTH	-
XT7	RHE_H Emergency transmitted handle	KXT7RHEEMH	-

### Front for operating lever mechanism – FLD

#### Front for operating lever mechanism – FLD

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT2-XT4	Front for locks – FLD	KXTCFLDFP	KXTCFLDW
XT5	Front for FLD locks	KXT5FLDFP	KXT5FLDW
XT6	Front for FLD locks	KXT6FLDFP	KXT6FLDW



Front for operating lever mechanism – FLD

## Ordering codes for Tmax XT accessories

### Remote control



SOR uncabled



SOR cabled



SOR for withdrawable version

### Shunt opening release

#### Shunt opening release – SOR

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT1...XT4	SOR 12 V DC	KXTASORA	–
XT1...XT4	SOR 24-30 V AC/DC	KXTASORB	–
XT1...XT4	SOR 48-60 V AC/DC	KXTASORC	–
XT1...XT4	SOR 110...127 V AC / 110...125 V DC	KXTASORD	–
XT1...XT4	SOR 220...240 V AC / 220...250 V DC	KXTASORE	–
XT1...XT4	SOR 380-440 V AC	KXTASORF	–
XT1...XT4	SOR 480-525 V AC	KXTASORG	–
<b>Cabled version</b>			
XT1-XT3	SOR-C 12 V DC	KXTASORCFPA	–
XT1-XT3	SOR-C 24-30 V AC/DC	KXTASORCFPB	–
XT1-XT3	SOR-C 48-60 V AC/DC	KXTASORCFPC	–
XT1-XT3	SOR-C 110-127 V AC / 110-125 V DC	KXTASORCFPD	–
XT1-XT3	SOR-C 220-240 V AC / 220-250 V DC	KXTASORCFPE	–
XT1-XT3	SOR-C 380-440 V AC	KXTASORCFPF	–
XT1-XT3	SOR-C 480-525 V AC	KXTASORCFPG	–
XT2-XT4	SOR-C 12 V DC	KXTASORCFPA	KXTCSORCWA
XT2-XT4	SOR-C 24-30 V AC/DC	KXTASORCFPB	KXTCSORCWB
XT2-XT4	SOR-C 48-60 V AC/DC	KXTASORCFPC	KXTCSORCWC
XT2-XT4	SOR-C 110-127 V AC / 110-125 V DC	KXTASORCFPD	KXTCSORCWD
XT2-XT4	SOR-C 220-240 V AC / 220-250 V DC	KXTASORCFPE	KXTCSORCWE
XT2-XT4	SOR-C 380-440 V AC	KXTASORCFPF	KXTCSORCWF
XT2-XT4	SOR-C 480-525 V AC	KXTASORCFPG	KXTCSORCWG

## Ordering codes for Tmax XT accessories

### Remote control



—  
YO – shunt opening  
release

#### Shunt opening release – YO

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT5-XT6	YO 12 V DC	KXTFYOA	–
XT5-XT6	YO 24...60 V AC/DC	KXTFYOB	–
XT5-XT6	YO 110..240 V AC – 110..250 V DC	KXTFYOD	–
XT5-XT6	YO 380...525 V AC	KXTFYOG	–
<b>Cabled version</b>			
XT5	YO 12 V DC	KXTFYOCFPA	KXT5YOCWA
XT5	YO 24...60 V AC/DC	KXTFYOCFPB	KXT5YOCWB
XT5	YO 110..240 V AC – 110..250 V DC	KXTFYOCFPD	KXT5YOCWD
XT5	YO 380...525 V AC	KXTFYOCFPG	KXT5YOCWG
XT6	YO 12 V DC	KXTFYOCFPA	KXT6YOCWA
XT6	YO 24...60 V AC/DC	KXTFYOCFPB	KXT6YOCWB
XT6	YO 110..240 V AC – 110..250 V DC	KXTFYOCFPD	KXT6YOCWD
XT6	YO 380...525 V AC	KXTFYOCFPG	KXT6YOCWG



—  
Shunt opening release –  
YO

#### Shunt opening release – YO

Size	Type	U.S. Ordering Code
XT7-XT7 M	YO 24 V AC/DC	ZEASA
XT7-XT7 M	YO 30 V AC/DC	ZEASB
XT7-XT7 M	YO 48 V AC/DC	ZEASC
XT7-XT7 M	YO 60 V AC/DC	ZEASD
XT7-XT7 M	YO 110-120 V AC/DC	ZEASE
XT7-XT7 M	YO 120-127 V AC/DC	ZEASF
XT7-XT7 M	YO 220-240 V AC/DC	ZEASG
XT7-XT7 M	YO 240-250 V AC/DC	ZEASH
XT7-XT7 M	YO 380-400 V AC	ZEASK
XT7-XT7 M	YO 415-440 V AC	ZEASL
XT7-XT7 M	YO 480-500 V AC	ZEASM

## Ordering codes for Tmax XT accessories

### Remote control



UVR uncabled



UVR cabled



UVR for withdrawable

### Undervoltage release

#### Undervoltage release – UVR

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT1...XT4	UVR 24-30 V AC/DC	KXTAUVR1	–
XT1...XT4	UVR 48 V AC/DC	KXTAUVR2	–
XT1...XT4	UVR 60 V AC/DC	KXTAUVR3	–
XT1...XT4	UVR 110...127 V AC / 110...125 V DC	KXTAUVR4	–
XT1...XT4	UVR 220...240 V AC / 220...250 V DC	KXTAUVR5	–
XT1...XT4	UVR 380-440 V AC	KXTAUVR6	–
XT1...XT4	UVR 480-525 V AC	KXTAUVR7	–
<b>Cabled version</b>			
XT1-XT3	UVR-C 24-30 V AC/DC	KXTAUVRCFP1	–
XT1-XT3	UVR 48 V AC/DC	KXTAUVRCFP2	–
XT1-XT3	UVR 60 V AC/DC	KXTAUVRCFP3	–
XT1-XT3	UVR 110...127 V AC / 110...125 V DC	KXTAUVRCFP4	–
XT1-XT3	UVR 220...240 V AC / 220...250 V DC	KXTAUVRCFP5	–
XT1-XT3	UVR 380-440 V AC	KXTAUVRCFP6	–
XT1-XT3	UVR 480-525 V AC	KXTAUVRCFP7	–
XT2-XT4	UVR-C 24-30 V AC/DC	KXTAUVRCFP1	KXTCUVRW1
XT2-XT4	UVR 48 V AC/DC	KXTAUVRCFP2	KXTCUVRW2
XT2-XT4	UVR 60 V AC/DC	KXTAUVRCFP3	KXTCUVRW3
XT2-XT4	UVR 110...127 V AC / 110...125 V DC	KXTAUVRCFP4	KXTCUVRW4
XT2-XT4	UVR 220...240 V AC / 220...250 V DC	KXTAUVRCFP5	KXTCUVRW5
XT2-XT4	UVR 380-440 V AC	KXTAUVRCFP6	KXTCUVRW6
XT2-XT4	UVR 480-525 V AC	KXTAUVRCFP7	KXTCUVRW7

## Ordering codes for Tmax XT accessories

### Remote control



— YU – undervoltage release

#### Undervoltage release – YU

Size	Type	Fixed/plug-in withdrawable	
		U.S. Ordering Code	U.S. Ordering Code
<b>Uncabled version</b>			
XT5-XT6	YU 12 V DC	KXTFYU0	–
XT5-XT6	YU 24...30 V AC/DC	KXTFYU1	–
XT5-XT6	YU 48...60 V AC/DC	KXTFYU2	–
XT5-XT6	YU 110..127 V AC – 110..125 V DC	KXTFYU4	–
XT5-XT6	YU 220..240 V AC – 220..250 V DC	KXTFYU5	–
XT5-XT6	YU 380...440 V AC	KXTFYU6	–
XT5-XT6	YU 480...525 V AC	KXTFYU7	–
<b>Cabled version</b>			
XT5	YU-C 12 V DC	KXTFYUC0	KXT5YUCW0
XT5	YU-C 24...30 V AC/DC	KXTFYUC1	KXT5YUCW1
XT5	YU-C 48...60 V AC/DC	KXTFYUC2	KXT5YUCW2
XT5	YU-C 110..127 V AC – 110..125 V DC	KXTFYUC4	KXT5YUCW4
XT5	YU-C 220..240 V AC – 220..250 V DC	KXTFYUC5	KXT5YUCW5
XT5	YU-C 380...440 V AC	KXTFYUC6	KXT5YUCW6
XT5	YU-C 480...525 V AC	KXTFYUC7	KXT5YUCW7
XT6	YU-C 12 V DC	KXTFYUC0	KXT6YUCW0
XT6	YU-C 24...30 V AC/DC	KXTFYUC1	KXT6YUCW1
XT6	YU-C 48...60 V AC/DC	KXTFYUC2	KXT6YUCW2
XT6	YU-C 110..127 V AC – 110..125 V DC	KXTFYUC4	KXT6YUCW4
XT6	YU-C 220..240 V AC – 220..250 V DC	KXTFYUC5	KXT6YUCW5
XT6	YU-C 380...440 V AC	KXTFYUC6	KXT6YUCW6
XT6	YU-C 480...525 V AC	KXTFYUC7	KXT6YUCW7



— Undervoltage release – YU

#### Undervoltage release – YU

Size	Type	U.S. Ordering Code
XT7-XT7 M	YU 24 V AC/DC	ZEAUA
XT7-XT7 M	YU 30 V AC/DC	ZEAUB
XT7-XT7 M	YU 48 V AC/DC	ZEAUC
XT7-XT7 M	YU 60 V AC/DC	ZEAUD
XT7-XT7 M	YU 110-120 V AC/DC	ZEAUE
XT7-XT7 M	YU 120-127 V AC/DC	ZEAUF
XT7-XT7 M	YU 220-240 V AC/DC	ZEAUG
XT7-XT7 M	YU 240-250 V AC/DC	ZEAUH
XT7-XT7 M	YU 380-400 V AC	ZEAUK
XT7-XT7 M	YU 415-440 V AC	ZEAUL
XT7-XT7 M	YU 480-500 V AC	ZEAUM



## Ordering codes for Tmax XT accessories

### Remote control



Closing release – YC

#### Undervoltage release – YU

Size	Type	U.S. Ordering Code
XT7-XT7 M	YC 24 V AC/DC	ZEACA
XT7-XT7 M	YC 30 V AC/DC	ZEACB
XT7-XT7 M	YC 48 V AC/DC	ZEACC
XT7-XT7 M	YC 60 V AC/DC	ZEACD
XT7-XT7 M	YC 110-120 V AC/DC	ZEACE
XT7-XT7 M	YC 120-127 V AC/DC	ZEACF
XT7-XT7 M	YC 220-240 V AC/DC	ZEACG
XT7-XT7 M	YC 240-250 V AC/DC	ZEACH
XT7-XT7 M	YC 380-400 V AC	ZEACK
XT7-XT7 M	YC 415-440 V AC	ZEACL
XT7-XT7 M	YC 480-500 V AC	ZEACM



Time delay device for undervoltage release – UVD

#### Delay device for undervoltage release – UVD

##### Delay device for undervoltage release – UVD

Size	Type	U.S. Ordering Code
XT1...XT4	UVD 24...30 V AC/DC	KT3UVD8
XT1...XT4	UVD 48...60 V AC/DC	KT3UVD7
XT1...XT4	UVD 110...125 V AC/DC	KT3UVD4
XT1...XT4	UVD 220...250 V AC/DC	KT3UVD2
XT5-XT6	UVD 24...30 V AC/DC	KXTFUVD24
XT5-XT6	UVD 48...60 V AC/DC	KXTFUVD48
XT5-XT6	UVD 110...125 V AC/DC	KXTFUVD120
XT5-XT6	UVD 220...250 V AC/DC	KXTFUVD240
XT7 – XT7 M	UVD 24/30 V	KE6TL9
XT7 – XT7 M	UVD 48 V	KE6TL8
XT7 – XT7 M	UVD 60 V	KE6TL7
XT7 – XT7 M	UVD 110/127 V	KE6TL5
XT7 – XT7 M	UVD 220/250 V	KE6TL3

## Ordering codes for Tmax XT accessories

### Remote control



Fixed/Moving part connector for withdrawable

Connectors for shunt opening and undervoltage release for withdrawable version

#### Connectors for shunt opening and undervoltage release for withdrawable version

Size	Type	U.S. Ordering Code
<b>Connector of 4th pole for withdrawable versions</b>		
XT2-XT4	Connector 4th pole SOR	KXTCE3PINCONSOR
XT2-XT4	Connector 4th pole UVR	KXTCE3PINCONUVR
<b>Connector of 3rd pole for withdrawable versions</b>		
XT5	Connector 3rd pole YO	KXT5CONYOL
XT5	Connector 3rd pole YU	KXT5CONYUL
XT6	Connector 3rd pole YO	KXT6CONYOL
XT6	Connector 3rd pole YU	KXT6CONYUL

### Remote reset – YR



Remote reset – YR

#### Remote reset – YR

Size	Type	U.S. Ordering Code
XT7 M	YR 24 V DC	ZE1YRA
XT7 M	YR 110 V AC/DC	ZE1YRB
XT7 M	YR 220 V AC/DC	ZE1YRC

### Motor operator



Motor operator – MOD

#### Direct action motor operator – MOD

Size	Type	U.S. Ordering Code
XT1-XT3	MOD 24 V DC	KXTBMOD24
XT1-XT3	MOD 48...60 V DC	KXTBMOD48-60
XT1-XT3	MOD 110...125 V AC/DC	KXTBMOD110-125
XT1-XT3	MOD 220...250 V AC/DC	KXTBMOD220-250
XT1-XT3	MOD 380...440 V AC	KXTBMOD280-240
XT1-XT3	MOD 480...525 V AC	KXTBMOD480-525

## Ordering codes for Tmax XT accessories

### Remote control



Motor operator – MOE

#### Stored energy motor operator – MOE

Size	Type	U.S. Ordering Code
XT2-XT4	XT2-XT4 MOE 24 V DC	KXTCMOE24
XT2-XT4	XT2-XT4 MOE 48...60 V DC	KXTCMOE48-60
XT2-XT4	XT2-XT4 MOE 110...125 V AC/DC	KXTCMOE110-125
XT2-XT4	XT2-XT4 MOE 220...250 V AC/DC	KXTCMOE220-250
XT2-XT4	XT2-XT4 MOE 380...440 V AC	KXTCMOE380-440
XT2-XT4	XT2-XT4 MOE 480...525 V AC	KXTCMOE480-525
XT5	XT5 MOE 24 V DC	KXT5MOE24
XT5	XT5 MOE 48...60 V DC	KXT5MOE48-60
XT5	XT5 MOE 110...125 V AC/DC	KXT5MOE110-125
XT5	XT5 MOE 220...250 V AC/DC	KXT5MOE220-250
XT5	XT5 MOE 380 V AC	KXT5MOE380
XT5	XT5 MOE 24 V DC fast opening	KXT5MOE24F
XT5	XT5 MOE 48...60 V DC fast opening	KXT5MOE48-60F
XT5	XT5 MOE 110...125 V AC/DC fast opening	KXT5MOE110-125F
XT5	XT5 MOE 220...250 V AC/DC fast opening	KXT5MOE220-250F
XT5	XT5 MOE 380 V AC fast opening	KXT5MOE380F
XT6	XT6 MOE 24 V DC	KXT6MOE24
XT6	XT6 MOE 48...60 V DC	KXT6MOE48-60
XT6	XT6 MOE 110...125 V AC/DC	KXT6MOE110-125
XT6	XT6 MOE 220...250 V AC/DC	KXT6MOE220-250
XT6	XT6 MOE 380 V AC	KXT6MOE380
XT6	XT6 MOE 24 V DC fast opening	KXT6MOE24F
XT6	XT6 MOE 48...60 V DC fast opening	KXT6MOE48-60F
XT6	XT6 MOE 110...125 V AC/DC fast opening	KXT6MOE110-125F
XT6	XT6 MOE 220...250 V AC/DC fast opening	KXT6MOE220-250F
XT6	XT6 MOE 380 V AC fast opening	KXT6MOE380F

## Ordering codes for Tmax XT accessories

### Remote control



Motor operator – MOE

#### Electronic stored energy motor operator – MOE-E

Size	Type	U.S. Ordering Code
XT2-XT4	XT2-XT4 MOE-E 24 V DC	KXTCMOEE24
XT2-XT4	XT2-XT4 MOE-E 48...60 V DC	KXTCMOEE48-60
XT2-XT4	XT2-XT4 MOE-E 110...125 V AC/DC	KXTCMOEE110-125
XT2-XT4	XT2-XT4 MOE-E 220...250 V AC/DC	KXTCMOEE220-250
XT2-XT4	XT2-XT4 MOE-E 380...440 V AC	KXTCMOEE380-440
XT2-XT4	XT2-XT4 MOE-E 480...525 V AC	KXTCMOEE480-525
XT5	XT5 MOE-E 24 V DC	KXT5MOEE24
XT5	XT5 MOE-E 48...60 V DC	KXT5MOEE48-60
XT5	XT5 MOE-E 110...125 V AC/DC	KXT5MOEE110-125
XT5	XT5 MOE-E 220...250 V AC/DC	KXT5MOEE220-250
XT5	XT5 MOE-E 380 V AC	KXT5MOEE380
XT5	XT5 MOE-E 24 V DC Fast opening	KXT5MOEE24F
XT5	XT5 MOE-E 48...60 V DC Fast opening	KXT5MOEE48-60F
XT5	XT5 MOE-E 110...125 V AC/DC Fast opening	KXT5MOEE110-125F
XT5	XT5 MOE-E 220...250 V AC/DC Fast opening	KXT5MOEE220-250F
XT5	XT5 MOE-E 380 V AC Fast opening	KXT5MOEE380F



Spring charging motor – M

#### Spring charging motor – M

Size	Type	U.S. Ordering Code
XT7 M	M 24-30 V AC/DC	KXTMSCM24-30
XT7 M	M 48-60 V AC/DC	KXTMSCM48-60
XT7 M	M 100-130 V AC/DC	KXTMSCM100-130
XT7 M	M 220-250 V AC/DC	KXTMSCM220-250
XT7 M	M 380-415 V AC/DC	KXTMSCM380-415

## Ordering codes for Tmax XT accessories

Safety and protection



Terminal cover

### Power connection

#### Terminals for circuit breaker

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	LTC Low terminal covers	KXT1LTC-3	KXT1LTC-4
XT1	HTC High terminal covers	KXT1HTC-3	KXT1HTC-4
XT2	LTC Low terminal covers	KXT2LTC-3	KXT2LTC-4
XT2	HTC High terminal covers	KXT2HTC-3	KXT2HTC-4
XT3	LTC Low terminal covers	KXT3LTC-3	KXT3LTC-4
XT3	HTC High terminal covers	KXT3HTC-3	KXT3HTC-4
XT4	LTC Low terminal covers	KXT4LTC-3	KXT4LTC-4
XT4	HTC High terminal covers	KXT4HTC-3	KXT4HTC-4
XT5	LTC Low terminal covers	KXT5LTC-3	KXT5LTC-4
XT5	HTC High terminal covers	KXT5HTC-3	KXT5HTC-4
XT5	HTC_BS High terminal covers with back shield	KXT5HTCBS-3	KXT5HTCBS-4
XT5	HTC_ES High terminal covers for ES	KXT5HTCES-3	KXT5HTCES-4
XT5	HTC_ES_BS High terminal covers for ES with back shield	KXT5HTCESBS-3	KXT5HTCESBS-4
XT5	HTC – XT5 FP RC 4p	–	KXT5HTCRC-4
XT6	LTC Low terminal covers	KXT6LTC-3	KXT6LTC-4
XT6	HTC High terminal covers	KXT6HTC-3	KXT6HTC-4
XT6	HTC_BS High terminal covers with back shield	KXT6HTCBS-3	KXT6HTCBS-4
XT6	HTC_ES High terminal covers for ES	KXT6HTCES-3	KXT6HTCES-4
XT6	HTC_ES_BS High terminal covers for ES with back shield	KXT6HTCESBS-3	KXT6HTCESBS-4
XT7-XT7 M	LTC Low terminal covers	KXT7LTC-3	KXT7LTC-4
XT7-XT7 M	LTC Low terminal covers for W	KXT7LTCW-3	KXT7LTCW-4
XT7-XT7 M	HTC High terminal covers	KXT7HTC2pcs-3	KXT7HTC2pcs-4
XT7-XT7 M	HTC High terminal covers form 4	KXT7HTCBS-3	KXT7HTCBS-4
XT7-XT7 M	HTC_ES High terminal covers for ES	KXT7HTCES-3	KXT7HTCES-4
XT7-XT7 M	HTC_ES High terminal covers for ES form 4	KXT7HTCESBS-3	KXT7HTCESBS-4

#### Insulating plates

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT5	Terminal insulating plate XT5 fixed	KXT5INSLPLT-3	KXT5INSLPLT-4

## Ordering codes for Tmax XT accessories

Safety and protection



Sealable screw



Phase separators

### Sealable screws for terminal covers

Size	Type	U.S. Ordering Code
XT1...XT4	Kit with two sealable screws	KXTAESSEAL

### Phase separators for circuit breaker

Size	Type	4 pcs	6 pcs
		U.S. Ordering Code	U.S. Ordering Code
XT1-XT3	PB height 0.98in/25mm	KXTBPB25-3	KXTBPB25-4
XT1-XT3	PB height 3.94in/100mm	KXTBPB100-3	KXTBPB100-4
XT1-XT3	PB height 7.87in/200mm	KXTBPB200-3	KXTBPB200-4
XT2-XT4	PB height 0.98in/25mm	KXTCPB25-3	KXTCPB25-4
XT2-XT4	PB height 3.94in/100mm	KXTCPB100-3	KXTCPB100-4
XT2-XT4	PB height 7.87in/200mm	KXTCPB200-3	KXTCPB200-4
XT5	PB Height 25mm	KXT5PB25UL-3	KXT5PB25UL-3
XT5	PB Height 100mm	KXT5PB100UL-3	KXT5PB100UL-4
XT5	PB Height 200mm	KXT5PB200UL-3	KXT5PB200UL-4
XT6	PB Height 100mm	KXT6PB100UL-3	KXT6PB100UL-4
XT6	PB Height 200mm	KXT6PB200UL-3	KXT6PB200UL-4

### Phase separators for fixed parts

Size	Type	4 pcs	6 pcs
		U.S. Ordering Code	U.S. Ordering Code
XT1	PS – Rear phase separators for FP	KXTAEPB90-3	KXTAEPB90-4
XT2	PS – Rear phase separators for FP	KXTAEPB90-3	KXTAEPB90-4
XT3	PS – Rear phase separators for FP	KXTAEPB90-3	KXTAEPB90-4
XT4	PS – Rear phase separators for FP	KXTAEPB90-3	KXTAEPB90-4
XT5	PS – Rear phase separators for FP	KXT5PBFP-3	KXT5PBFP-4
		<b>2 pcs</b>	<b>3 pcs</b>
XT7-XT7M	PS – Phase separators for FP W	–	–

## Ordering codes for Tmax XT accessories

Safety and protection



IP54 protection for RHE

### IP Protection

#### IP Protection for rotary handles

Size	Type	U.S. Ordering Code
XT1...XT4	IP54 protection for RHE	KXTAERHEIP54
XT5	IP54 protection for RHD	KXT5IP54RH
XT6	IP54 protection for RHD	KXT6IP54RH
XT7	IP54 protection for RHD	KXT7IP54RH



IP54 protection for XT7 M

#### IP Protection for motor operators

Size	Type	U.S. Ordering Code
XT5	IP54 Flange different keys for MOE	KXT5IP54FLMOE-D
XT5	IP54 Flange same keys for MOE	KXT5IP54FLMOE-S
XT6	IP54 Flange different keys for MOE	KXT6IP54FLMOE-D
XT6	IP54 Flange same keys for MOE	KXT6IP54FLMOE-S
XT7 M	IP54 Flange with different keys	ZE1FLG54DK
XT7 M	IP54 Flange with the same keys	ZE1FLG54SK



Mechanical operation counter – MOC

### Mechanical operator counter

#### Mechanical operator counter – MOC

Size	Type	U.S. Ordering Code
XT7 M	Mechanical operation counter	KXT7MOC

## Ordering codes for Tmax XT accessories

### Safety and protection



Keylock/padlock for fixed part



Key lock in racked-in/  
test/racked-out position  
– KLP



Padlock in racked-in/  
test/racked-out position  
– PLP

### Keylocks and padlocks

#### Keylock/padlock for fixed part of withdrawable

Size	Type	U.S. Ordering Code
XT2-XT4	KL-D Keylock FP, Giussani different keys	KXTCEKLDFFPW
XT2-XT4	KL-S Keylock FP, Giussani same keys N.20005	KXTCEKLSFPW
XT2-XT4	KL-D Keylock FP, Ronis 1228 different keys	KXTCEKLDRonFPW
XT2-XT4	KL-S Keylock FP, Ronis 1228 same keys Type A keys	KXTCEKLSRonFPW
XT5-XT6	KL-D Keylock FP, Giussani different keys	KXTFKLDFPFGDIF
XT5-XT6	KL-S Keylock FP, Giussani same keys N.20005	KXTFKLSFPWG20005
XT5-XT6	KL-D Keylock FP, Ronis 1228 different keys	KXTFKLDFPWRDIF
XT5-XT6	KL-S Keylock FP, Ronis 1228 same keys Type A keys	KXTFKLSFPWRA
XT5-XT6	KL_A Ronis Arrangement 1104 FP	KXTFKLAFPWR1104
XT5-XT6	KL_A STI Arrangement FP	KXTFKLAFPWSTI
XT7-XT7 M	KLP-A Bl. Racked in/out RonProf Kirk XT7-XT7 M 1st key	ZE1KLPR
XT7-XT7 M	KLP-A Bl. Racked in/out RonProf Kirk XT7-XT7 M 2nd key	ZE1KLPR-2
XT7-XT7 M	KLP-A Pos.lock Ronis-STI 1key	–
XT7-XT7 M	KLP-A Pos.lock Ronis-STI 2key	–
XT7-XT7 M	KLP-D Bl. Racked in/out XT7-XT7 M 1st key	ZE1KLPD
XT7-XT7 M	KLP-D Bl. Racked in/out XT7-XT7 M 2nd key	ZE1KLPD-2
XT7-XT7 M	KLP-S Bl. Racked in/out N.20005 XT7-XT7 M 1st key	ZE1KLPS5
XT7-XT7 M	KLP-S Bl. Racked in/out N.20005 XT7-XT7 M 2nd key	ZE1KLPS5-2
XT7-XT7 M	KLP-S Bl. Racked in/out N.20006 XT7-XT7 M 1st key	ZE1KLPS6
XT7-XT7 M	KLP-S Bl. Racked in/out N.20006 XT7-XT7 M 2nd key	ZE1KLPS6-2
XT7-XT7 M	KLP-S Bl. Racked in/out N.20007 XT7-XT7 M 1st key	ZE1KLPS7
XT7-XT7 M	KLP-S Bl. Racked in/out N.20007 XT7-XT7 M 2nd key	ZE1KLPS7-2
XT7-XT7 M	KLP-S Bl. Racked in/out N.20008 XT7-XT7 M 1st key	ZE1KLPS8
XT7-XT7 M	KLP-S Bl. Racked in/out N.20008 XT7-XT7 M 2nd key	ZE1KLPS8-2
XT7-XT7 M	KLP-S Bl. Racked in/out N.20009 XT7-XT7 M 1st key	ZE1KLPS9
XT7-XT7 M	KLP-S Bl. Racked in/out N.20009 XT7-XT7 M 2nd key	ZE1KLPS9-2
XT7-XT7 M	Suppl. locks in racked-out XT7-XT7 M	ZE1SUP
XT7-XT7 M	PLP Bl. padlocks racked in/out D = 4/6/8mm	ZE1PLP



## Ordering codes for Tmax XT accessories

### Safety and protection



Fixed padlock in the open position – PLL



Padlock in the open position – PLC



Removable padlock in the open position



Key lock on the circuit breaker

#### Circuit breaker padlock

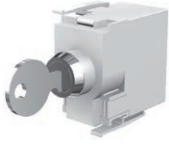
Size	Type	U.S. Ordering Code
XT1-XT3	PLL Removable lock with padlocks in open position	KXTBPLLREM
XT1-XT3	PLL Fixed lock with padlocks in open position	KXTBPLLOP
XT1-XT3	PLL Fixed lock with padlocks in open/closed position	KXTBPLLOPCL
XT2-XT4	PLL Fixed lock with padlocks in open position	KXTCPLLOP
XT2-XT4	PLL Fixed lock with padlocks in open/closed position	KXTCPLLOPCL
XT5	PLL Removable lock with padlocks in open position	KXT5PLLREM
XT5	PLL Fixed lock with padlocks in open position	KXT5PLLOP
XT5	PLL Fixed lock with padlocks in open/closed position	KXT5PLLOPCL
XT6	PLL Removable lock with padlocks in open position	KXT6PLLREM
XT6	PLL Fixed lock with padlocks in open position	KXT6PLLOP
XT6	PLL Fixed lock with padlocks in open/closed position	KXT6PLLOPCL
XT7	PLL Fixed lock with padlocks in open position	KXT7PLLOP
XT7 M	PLC Padlocks in open position D = 4 mm	ZE1PLC4
XT7 M	PLC Padlocks in open position D = 7 mm	ZE1PLC7
XT7 M	PLC Padlocks in open position D = 8 mm	ZE1PLC8

#### Keylock for circuit breaker – KLC

Size	Type	U.S. Ordering Code
XT1	KLC Ronis key lock open, different keys, removable in open position	KXT1KLCCBDIF
XT1	KLC Ronis key lock open, same type A keys, removable in open position	KXT1KLCCBA
XT1	KLC Ronis key lock open, same type B keys, removable in open position	KXT1KLCCBB
XT1	KLC Ronis key lock open, same type C keys, removable in open position	KXT1KLCCBC
XT1	KLC Ronis key lock open, same type D keys, removable in open position	KXT1KLCCBD
XT1	KLC Ronis key lock open, same keys, removable in both position	KXT1KLCCBOPCL
XT3	KLC Ronis key lock open, different keys, removable in open position	KXT3KLCCBDIF
XT3	KLC Ronis key lock open, same type A keys, removable in open position	KXT3KLCCBA
XT3	KLC Ronis key lock open, same type B keys, removable in open position	KXT3KLCCBB
XT3	KLC Ronis key lock open, same type C keys, removable in open position	KXT3KLCCBC
XT3	KLC Ronis key lock open, same type D keys, removable in open position	KXT3KLCCBD
XT3	KLC Ronis key lock open, same keys, removable in both position	KXT3KLCCBOPCL
XT2-XT4	KLC Ronis key lock open, different keys, removable in open position	KXTCKLCCBDIF
XT2-XT4	KLC Ronis key lock open, same type A keys, removable in open position	KXTCKLCCBA
XT2-XT4	KLC Ronis key lock open, same type B keys, removable in open position	KXTCKLCCBB
XT2-XT4	KLC Ronis key lock open, same type C keys, removable in open position	KXTCKLCCBC
XT2-XT4	KLC Ronis key lock open, same type D keys, removable in open position	KXTCKLCCBD
XT2-XT4	KLC Ronis key lock open, same keys, removable in both position	KXTCKLCCBOPCL

## Ordering codes for Tmax XT accessories

### Safety and protection



—  
Keylock on the circuit  
breaker



—  
Key lock in open position  
– KLC

#### Keylock for circuit breaker – KLC

Size	Type	U.S. Ordering Code
XT5-XT6	KLC Ronis key lock open, different keys, removable in open position	KXTFKLCCBDIF
XT5-XT6	KLC Ronis key lock open, same type A keys, removable in open position	KXTFKLCCBA
XT5-XT6	KLC Ronis key lock open, same type B keys, removable in open position	KXTFKLCCBB
XT5-XT6	KLC Ronis key lock open, same type C keys, removable in open position	KXTFKLCCBC
XT5-XT6	KLC Ronis key lock open, same type D keys, removable in open position	KXTFKLCCBD
XT5-XT6	KLC Ronis key lock open, same keys, removable in both position	KXTFKLCCBOPCL
XT5-XT6	KLC-A Kirk key lock	KXTFKLCAKIRK
XT5-XT6	KLC-A Ronis 1104 key lock	KXTFKLCAR1104
XT5-XT6	KLC-A STI key lock	KXTFKLCASTI
XT7	KLC Ronis key lock open, different keys, removable in open position	KXT7KLCCBDIF
XT7	KLC Ronis key lock open, same type A keys, removable in open position	KXT7KLCCBA
XT7	KLC Ronis key lock open, same type B keys, removable in open position	KXT7KLCCBB
XT7	KLC Ronis key lock open, same type C keys, removable in open position	KXT7KLCCBC
XT7	KLC Ronis key lock open, same type D keys, removable in open position	KXT7KLCCBD
XT7	KLC Ronis key lock open, same keys, removable in both position	KXT7KLCCBOPCL
XT7	KLC-A Kirk key lock	KXT7KLCAKIRK
XT7	KLC-A Ronis 1104 key lock	KXT7KLCAR1104
XT7	KLC-A STI key lock	KXT7KLCASTI
XT7	KLC-A Castell key lock	KXT7KLCACSTL
XT7 M	KLC-D Key lock open	KXTMKLCDOPEN
XT7 M	KLC-S Key lock open N.20005	KXTMKLCS5
XT7 M	KLC-S Key lock open N.20006	KXTMKLCS6
XT7 M	KLC-S Key lock open N.20007	KXTMKLCS7
XT7 M	KLC-S Key lock open N.20008	KXTMKLCS8
XT7 M	KLC-S Key lock open N.20009	KXTMKLCS9
XT7 M	KLC-A Castell key lock open (1)	KXTMKLACSTL
XT7 M	KLC-A Kirk key lock open	KXTMKLCAKIRK
XT7 M	KLC-A Ronis 1104 – STI key lock open	KXTMKLCAR1104STI

## Ordering codes for Tmax XT accessories

### Safety and protection



Key lock on the handle

#### Keylock for the RH/FLD

Size	Type	U.S. Ordering Code
XT1...XT4	RHL Ronis key lock open, different keys – RHx/FLD	KXTARHLDIF
XT1...XT4	RHL Ronis key lock open, same type A keys – RHx/FLD	KXTARHLA
XT1...XT4	RHL Ronis key lock open, same type B keys – RHx/FLD	KXTARHLB
XT1...XT4	RHL Ronis key lock open, same type C keys – RHx/FLD	KXTARHLC
XT1...XT4	RHL Ronis key lock open, same type D keys – RHx/FLD	KXTARHLD
XT1...XT4	RHL Ronis key lock open/closed, different keys – RHx	KXTARHLOPCL
XT1...XT4	RHL Ronis key lock open/closed, different keys – FLD	KXTCRHFLD
XT5 – XT6	RHL Ronis key lock open, different keys – RHx/FLD	KXTFRHLDIF
XT5 – XT6	RHL Ronis key lock open, same type A keys – RHx/FLD	KXTFRHLA
XT5 – XT6	RHL Ronis key lock open, same type B keys – RHx/FLD	KXTFRHLB
XT5 – XT6	RHL Ronis key lock open, same type C keys – RHx/FLD	KXTFRHLC
XT5 – XT6	RHL Ronis key lock open, same type D keys – RHx/FLD	KXTRHLD
XT5 – XT6	RHL Ronis key lock open/closed, different keys – RHx/FLD	KXTFRHLOPCL
XT7	RHL Ronis key lock open, different keys – RHx	KXT7RHLDIF
XT7	RHL Ronis key lock open, same type A keys – RHx	KXT7RHLA
XT7	RHL Ronis key lock open, same type B keys – RHx	KXT7RHLB
XT7	RHL Ronis key lock open, same type C keys – RHx	KXT7RHLC
XT7	RHL Ronis key lock open, same type D keys – RHx	KXT7RHLD
XT7	RHL Ronis key lock open/closed, different keys – RHx	KXT7RHLOPCL

#### Keylock on the panel door with RHE

Size	Type	U.S. Ordering Code
XT5-XT6	RHL Ronis key lock open, different keys on the panel door	KXTKLPNLDR

## Ordering codes for Tmax XT accessories

### Safety and protection



Key lock on the motor

#### Keylock on the motor

Size	Type	U.S. Ordering Code
XT1-XT3	MOL-D Ronis key lock open, different keys	KXTBEMOLDIF
XT1-XT3	MOL-S Ronis key lock open, same type A keys	KXTBEMOLA
XT1-XT3	MOL-S Ronis key lock open, same type B keys	KXTBEMOLB
XT1-XT3	MOL-S Ronis key lock open, same type C keys	KXTBEMOLC
XT1-XT3	MOL-S Ronis key lock open, same type D keys	KXTBEMOLD
XT2-XT4	MOL-D Ronis key lock open, different keys	KXTCEMOLDIF
XT2-XT4	MOL-S Ronis key lock open, same type A keys	KXTCEMOLA
XT2-XT4	MOL-S Ronis key lock open, same type B keys	KXTCEMOLB
XT2-XT4	MOL-S Ronis key lock open, same type C keys	KXTCEMOLC
XT2-XT4	MOL-S Ronis key lock open, same type D keys	KXTCEMOLD
XT2-XT4	MOL-M Key lock against manual operation	KXTCEMOLMO
XT5-XT6	MOL-D Ronis key lock open, different keys	KXTFMOLDIF
XT5-XT6	MOL-S Ronis key lock open, same type A keys	KXTFMOLA
XT5-XT6	MOL-S Ronis key lock open, same type B keys	KXTFMOLB
XT5-XT6	MOL-S Ronis key lock open, same type C keys	KXTFMOLC
XT5-XT6	MOL-S Ronis key lock open, same type D keys	KXTFMOLD
XT5-XT6	MOL-M Key lock against manual operation	KXTFMOLMOP

#### Sealable lock on thermal setting

Size	Type	U.S. Ordering Code
XT1-XT3	Lock on thermal setting for TMD trip unit	KXTAEASEALREL



Protection device for opening and closing pushbuttons – PBC

#### Protection device for opening and closing pushbuttons – PBC

Size	Type	U.S. Ordering Code
XT7 M	PBC Prot. Pushbuttons AP/CH	ZE1PBC
XT7 M	PBC Prot. Pushbuttons AP/CH D = 4mm	ZE1PBC8
XT7 M	PBC Prot. Pushbuttons AP/CH D = 7mm	ZE1PBC7
XT7 M	PBC Prot. Pushbuttons AP/CH D = 8mm	ZE1PBC4

## Ordering codes for Tmax XT accessories

### Safety and protection



— Lock to prevent door opening when the circuit breaker is in the closed position – DLC

#### Lock to prevent door opening when the circuit breaker is in the closed position – DLC

Size	Type	U.S. Ordering Code
XT7-XT7 M	DLC interlock direct door for fixed to wall	ZE1DLCDDFW
XT7-XT7 M	DLC interlock direct door for fixed to floor	ZE1DLCDDFF
XT7-XT7 M	DLC interlock direct door for fixed part withdrawable	ZE1DLCDDFP
XT7-XT7 M	DLC interlock cable door for fixed to wall	ZE1DLCCDFW
XT7-XT7 M	DLC interlock cable door for fixed to floor	ZE1DLCCDFF
XT7-XT7 M	DLC interlock cable door for fixed part withdrawable	ZE1DLCCDFP

### Flanges

#### Flange for circuit breaker



— Flange for circuit breaker



— Flange for circuit breaker for the withdrawable version



— Flange for circuit breaker

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	Small flange for circuit breaker	KXTAEFLASMFP	KXTAEFLASMFP
XT1	Large flange for circuit breaker	KXT1EFLAFP-3	KXT1EFLAFP-4
XT1	Flange MOD	KXTBEFLAMOD	KXTBEFLAMOD
XT1	Flange for direct handle RHD	KXTAEFLARHDFP	KXTAEFLARHDFP
XT1	Flange for residual current RC Sel / Inst	KXT1EFLARCFP-3	KXT1EFLARCFP-4
XT2	Small flange for circuit breaker	KXTAEFLASMFP	KXTAEFLASMFP
XT2	Large flange for circuit breaker	KXT2EFLAFP-3	KXT2EFLAFP-4
XT2	Flange for MOE/MOE-E/FLD	KXTCEFLAMOEFP	KXTCEFLAMOEFP
XT2	Flange for MOE/MOE-E/FLD W	KXTCEFLAMOEW	KXTCEFLAMOEW
XT2	Flange for direct handle RHD	KXTAEFLARHDFP	KXTAEFLARHDFP
XT2	Flange for direct handle RHD W	KXTCEFLARHDW	KXTCEFLARHDW
XT2	Flange for residual current RC Sel	–	KXT2EFLARCFP-4
XT2	Flange for residual current RC Sel W	–	KXT2EFLARCW-4
XT3	Small flange for circuit breaker	KXTAEFLASMFP	KXTAEFLASMFP
XT3	Large flange for circuit breaker	KXT3EFLAFP-3	KXT3EFLAFP-4
XT3	Flange for MOD	KXTBEFLAMOD	KXTBEFLAMOD
XT3	Flange for direct handle RHD	KXTAEFLARHDFP	KXTAEFLARHDFP
XT3	Flange for residual current RC Sel/RC Inst	KXT3EFLARCFP-3	KXT3EFLARCFP-4
XT4	Small flange for circuit breaker	KXTAEFLASMFP	KXTAEFLASMFP
XT4	Large flange for circuit breaker	KXT4EFLAFP-3	KXT4EFLAFP-4
XT4	Flange for MOE/MOE-E/FLD	KXTCEFLAMOEFP	KXTCEFLAMOEFP
XT4	Flange for MOE/MOE-E/FLD W	KXTCEFLAMOEW	KXTCEFLAMOEW
XT4	Flange for direct handle RHD	KXTAEFLARHDFP	KXTAEFLARHDFP
XT4	Flange for direct handle RHD W	KXTCEFLARHDW	KXTCEFLARHDW

## Ordering codes for Tmax XT accessories

Safety and protection



Flange for circuit breaker



Flange for circuit breaker for the withdrawable version



Flange for circuit breaker

### Flange for circuit breaker (cont.)

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT4	Flange for residual current RC Sel	–	KXT4EFLARCFP-4
XT4	Flange for residual current RC Sel W	–	KXT4EFLARCW-4
XT5	Flange for circuit breaker	KXT5FLASMFP	KXT5FLASMFP
XT5	Flange for MOE/MOE-E/FLD/RHD	KXT5FLALGFP	KXT5FLALGFP
XT5	Flange for MOE/MOE-E/FLD/RHD W	KXT5FLALGW	KXT5FLALGW
XT5	Flange for residual current RC Sel	–	KXT5FLARCFP-4
XT5	Flange for residual current RC Sel W	–	KXT5FLARCW-4
XT6	Flange for circuit breaker	KXT6FLASMFP	KXT6FLASMFP
XT6	Flange for MOE/FLD/RHD	KXT6FLALGFP	KXT6FLALGFP
XT6	Flange for MOE/FLD/RHD W	KXT6FLALGW	KXT6FLALGW
XT7	Flange for RHD	KXT7FLAFP	KXT7FLAFP
XT7-XT7 M	IP30 Flange XT7-XT7 M	ZE1FLG30F	ZE1FLG30F
XT7-XT7 M	IP30 Flange XT7-XT7 M W	ZE1FLG30D	ZE1FLG30D

## Ordering codes for Tmax XT accessories

### Interlocks and switching devices

#### Automatic transfer devices



Rear mechanical interlock – MIR-H



Plate for rear mechanical interlock

#### Rear mechanical interlock

Size	Type	U.S. Ordering Code
<b>XT1-XT2-XT3-XT4 chassis</b>		
XT1...XT4	MIR-H	KXTAMIRHR
XT1...XT4	MIR-V	KXTAMIRVR
XT1	Plate XT1 F	KXT1MIRPLF
XT1	Plate XT1 P	KXT1MIRPLP
XT2	Plate XT2 F	KXT2MIRPLF
XT2	Plate XT2 P/W	KXT2MIRPLPW
XT3	Plate XT3 F	KXT3MIRPLF
XT3	Plate XT3 P	KXT3MIRPLP
XT4	Plate XT4 F	KXT4MIRPLF
XT4	Plate XT4 P/W	KXT4MIRPLPW
XT4	Plate for XT4 W/P with XT5 MIR	KXT4MIRPWXT5
XT5	MIR-H	KXT5MIRH
XT5	MIR-V	KXT5MIRV
XT5	Plate XT5 F	KXT5MIRF
XT5	Plate XT5 P/W 400A	KXT5MIR400PW
XT5	Plate XT5 P/W 630A	KXT5MIR600PW
XT5	Plate XT5 F for XT6 interlock	KXT5MIRFXT6
XT5	Plate XT5 W/P 400 for XT6 interlock	KXT5MIR400XT6
XT5	Plate XT5 W/P 630 for XT6 interlock	KXT5MIR600XT6
<b>XT6 chassis</b>		
XT6	MIR-H	KXT6MIRH
XT6	MIR-V	KXT6MIRV
XT6	Plate XT6 F	KXT6MIRF
XT6	Plate XT6 W	KXT6MIRPW

Note: If the CB interlocked has a stored energy motor operator (MOE/MOE-E) a key lock between the MOL-D and MOL-S is mandatory

#### Cable interlock

Size	Type	U.S. Ordering Code
XT7-XT7 M	Type A horizontal	ZEACBLAHR
XT7-XT7 M	Type A vertical	ZEACBLAVR
XT7-XT7 M	Support for mechanical interlock FP Type A	ZE1SPCRDA
XT7-XT7 M	Support for mechanical interlock for fixed CB type A – floor mounted	ZE1SPA
XT7-XT7 M	Support for mechanical interlock for fixed CB type A – wall mounted	ZE1SPAFM

## Ordering codes for Tmax XT accessories

Interlocks and switching devices and residual current devices



ATS021- ATS022  
Automatic transfer  
devices

### ATS021 – ATS022 Automatic transfer devices

Size	Type	U.S. Ordering Code
XT1...XT7 M	ATS021 Automatic multi voltage transfer device	ATS021
XT1...XT7 M	ATS022 Automatic advanced control transfer device	ATS022

## Residual current devices

### Residual current devices

Size	Type	3-poles	4-poles
		U.S. Ordering Code	U.S. Ordering Code
XT1	RC Sel Low 200mm	KXT1ERCINST-3	KXT1ERCSEL200-4
XT1	XT1 RC Inst	KXT1ERCSEL-3	KXT1ERCINST-4
XT1	XT1 RC Sel	–	KXT1ERCSEL-4
XT2	XT2 RC Sel	KXT3ERCINST-3	KXT2ERCSEL-4
XT3	XT3 RC Inst	KXT3ERCSEL-3	KXT3ERCINST-4
XT3	XT3 RC Sel	–	KXT3ERCSEL-4
XT3	XT3 RC B-Type	–	KXT3ERCB-4
XT4	XT4 RC Sel	–	KXT4ERCSEL-4
XT5	XT5 RC Sel (1)	–	KXT5RCSEL-4
XT5	XT5 RC Sel "Alarm Only"	–	KXT5RCSELALRM-4

(1) This can also be mounted on a three-pole circuit breaker



RC Inst / RC Sel



RC Sel

### Panel type residual current delay

Size	Type	U.S. Ordering Code
XT1...XT7 M	RCQ020/A 115-230 V AC	KXTAERCQ230
XT1...XT7 M	RCQ020/A 415 V AC	KXTAERCQ415
XT1...XT7 M	RCQ020/P 110-690 V AC	KXTAERCQ690
XT1...XT7 M	Toroid closed Ø 60mm	KXTTETOR60
XT1...XT7 M	Toroid closed Ø 110mm	KXTTETOR110
XT1...XT7 M	Toroid closed Ø 185mm	KXTTETOR185

Note: Opening coil and undervoltage coil to be ordered separately



Panel type residual  
current delay – RCQ020/A



Toroid



## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip LSI, Ekip LSIg and Ekip M-LRIU trip units



Ekip Display

### Accessories for electronic Ekip Dip trip units (Ekip LSI, Ekip LSIg and Ekip M-LRIU)

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT2-XT4	Ekip Display	KXTCEDISP	KXTCEDISP
XT2-XT4	Ekip LED Meter	KXTCELED	KXTCELED
XT2-XT4	Ekip Com for TM, Ekip LS/I, Ekip I, Ekip M-LIU, MCP and molded case switches	KXTCECOMFP	KXTCECOMW
XT2-XT4	Ekip Com + Ekip Display for Ekip LSI, Ekip LSIg, Ekip E-LSIG	KXTCECOMDISPFP	KXTCECOMDISPW
XT2-XT4	HMI030 interface on front of panel	HMI030	HMI030



Ekip LED Meter

### Connection kits

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT2-XT4	Kit of 24 V DC auxiliary voltage for electronic trip units	KXTCECAUXFP	KXTCECAUXW
XT2-XT4	Kit for external neutral connection	KXTCECNEFP	KXTCECNEW
XT4	Kit for external neutral voltage connection	KXT4ECNEFP	KXT4ECNEW

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units



Ekip Cartridge

### Ekip Cartridge

#### Ekip Cartridge

Size	Type	U.S. Ordering Code
XT2-XT4-XT5	Ekip Cartridge 2 slots XT2-XT4-XT5	KXTGCART2
XT2-XT4-XT5	Ekip Cartridge 4 slots XT2-XT4-XT5	KXTGCART4

### Power supply modules

#### Power supply modules

Size	Type	U.S. Ordering Code
XT2...XT5 – XT7-XT7 M	Ekip Supply 110-240 V AC/DC	ZEAPWRS
XT2...XT5 – XT7-XT7 M	Ekip Supply 24-48 V DC	ZEAPWRS D



Ekip Supply

### Connectivity modules

#### Internal modules

Size	Type	U.S. Ordering Code
XT2-XT4	Ekip Com Ethernet	KXTCCOMIENETIP
XT2-XT4	Ekip Com Hub	KXTCCOMIHUB
XT2-XT4	Ekip Com IEC61850	KXTCCOMIIEC61850
XT2-XT4	Ekip Com Modbus RTU	KXTCCOMIMBRS
XT2-XT4	Ekip Com Modbus TCP	KXTCCOMIMBTCP
XT2-XT4	Ekip Com Profinet	KXTCCOMIPFNET
XT2-XT4	Ekip Link	KXTCCOMILINK
XT2-XT4	Ekip Com STA Modbus TCP	KXTCCOMIMBTCP-STA
XT2-XT4	Ekip Com STA Modbus RTU	KXTCCOMIMBRS-STA
XT5	Ekip Com Ethernet	KXT5COMIENETIP
XT5	Ekip Com Hub	KXT5COMIHUB
XT5	Ekip Com IEC61850	KXT5COMIIEC61850
XT5	Ekip Com Modbus RTU	KXT5COMIMBRS
XT5	Ekip Com Modbus TCP	KXT5COMIMBTCP
XT5	Ekip Com Profinet	KXT5COMIPFNET
XT5	Ekip Link	KXT5COMILINK
XT5	Ekip Com STA Modbus TCP	KXT5COMIMBTCP-STA
XT5	Ekip Com STA Modbus RTU	KXT5COMIMBRS-STA
XT5	Ekip Com OPC UA	KXT5COMIOPCUA
XT5	Ekip Com Open ADR	KXT5COMIOPENADR



Ekip COM

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units



Ekip Link

### Cartridge and XT7 modules

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Modbus RTU Tmax XT	KXTTCOMEMBR5
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Modbus TCP Tmax XT	KXTTCOMEMBTCP
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Profibus Tmax XT	KXTTCOMEPFBUS
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Profinet Tmax XT	KXTTCOMEPFNET
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Devicenet Tmax XT	KXTTCOMEDNET
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Ethernet/IP Tmax XT	KXTTCOMEENETIP
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com IEC61850 Tmax XT	KXTTCOMEIEC61850
XT2-XT4-XT5 – XT7-XT7 M	Ekip Link Tmax XT	KXTTCOMELINK
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com Hub Tmax XT	KXTTCOMEHUB
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R Modbus RTU	ZEAMOD485R
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R Modbus TCP	KXTTCOMEMBTCP-R
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R Profibus	ZEAProfibu5R
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R Profinet	KXTTCOMEPFNET-R
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R DeviceNet™	ZEADEVICENETR
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R EtherNet/IP™	KXTTCOMEENETIP-R
XT2-XT4-XT5 – XT7-XT7 M	Ekip Com R IEC61850	KXTTCOMEIEC61850-R
XT7 M	Ekip Com Actuator	ZEACACT



Ekip 2K Signalling

### Signalling modules

#### Internal modules

Size	Type	U.S. Ordering Code	U.S. Ordering Code
XT5	EKIP Signalling 1K-1 XT5 INT	KXT5EKIP1KFP	KXT5EKIP1KW



Ekip 10K Signalling

### Cartridge and XT7 modules

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 2K-1	ZE2K1
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 2K-2	ZE2K2
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 2K-3	ZEB2K3
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 3T-1 AI – Temp PT1000	ZE3T1
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 3T-2 AI – Temp PT1000	ZE3T2
XT2-XT4-XT5 – XT7-XT7 M	Ekip Signalling 10K*	ZE10K

\*External device

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units



Ekip Measuring

### Other modules

#### Measuring modules

Size	Type	U.S. Ordering Code
XT7-XT7 M	Ekip Measuring module	KXT7EKIPM
XT7-XT7 M	Voltage socket for neutral on right side L1 L2 L3 N	ZE1VSNRT



Ekip Maintenance

#### Internal maintenance module

Size	Type	U.S. Ordering Code	U.S. Ordering Code
XT5	EKIP Maintenance module XT5 INT	KXT5EKIPMM	KXT5EKIPMMW

#### Synchrocheck module

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT7-XT7 M	Ekip Synchrocheck	ZEASYNCHK

#### Contacteur interface module

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT7-XT7 M	Ekip CI	KXTTEKIPCI

#### External 3T signaling probe module

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT7-XT7 M	External probe PT1000 3mt	ZE3T1

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units



Ekip RTC contacts

### Options for Ekip electrical trip units

Size	Type	U.S. Ordering Code
XT7-XT7 M	Upper internal installed voltage outlets	Factory installed only
XT7-XT7 M	External installed voltage outlets	Factory installed only
XT7-XT7 M	Arrangement for cables with lower internal voltage outlets	Factory installed only
XT7-XT7 M	Arrangement for cables with upper internal voltage outlets	Factory installed only
XT7-XT7 M	Arrangement for cables with external voltage outlets	Factory installed only
XT7-XT7 M	RTC Ekip 24 V	ZE1RTCDE
XT7-XT7 M	AUP Ekip auxiliary position contact	ZEAAPUE

### Connection kits

Size	Type	Fixed/plug-in	Withdrawable
		U.S. Ordering Code	U.S. Ordering Code
XT2-XT4	Con.Kit 24V/IntBus/ExtNeut/Sel	KXTCTRIPCON	KXTCTRIPCONW
XT2-XT4	Kit for external neutral voltage connection	–	KXTCEXTN
XT2-XT4	Kit zone selectivity XT2 XT4 Ekip Touch	–	–
XT2-XT4-XT5	Terminal block din rails with 5 positions	KXTGTB5	KXTGTB5
XT2-XT4-XT5	Terminal block din rails with 10 positions	KXTGTB10	KXTGTB10
XT5	Kit zone selectivity XT5 Ekip Touch	–	KXT5ZSITPW
XT5	Kit external neutral volt. conn XT5	KXT5EXTN	KXT5EXTN
XT5	Kit for external neutral volt.conn XT5	–	KXT5EXTNW
XT5	Kit Ext NE sensor XT5 Ekip Dip	KXT5EXTNDIP	KXT5EXTNDIP
XT5	Kit Ext NE V sensor XT5 Ekip Touch	KXT5EXTNTV	KXT5EXTNTV
XT5	Kit Ext NE C sensor XT5 Ekip Touch	KXT5EXTNTC	KXT5EXTNTC
XT5	Kit Ext NE C + V sensor XT5 Ekip Touch	KXT5EXTNTVC	KXT5EXTNTVC

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units

### Advanced functionality

#### Packages

Size	Type	U.S. Ordering Code
XT2-XT4	Measuring package for XT2-XT4	***
XT2-XT4	Adaptive protection for XT2-XT4	***
XT2-XT4	Frequency protection for XT2-XT4	***
XT2-XT4	Power protection for XT2-XT4	***
XT2-XT4	ROCOF protection for XT2-XT4	***
XT2-XT4	Advanced voltages protection for XT2-XT4	***
XT2-XT4	Voltages protection for XT2-XT4	***
XT5-XT7-XT7 M	Datalogger for XT5-XT7	***
XT5-XT7-XT7 M	Network analyzer for XT5-XT7	***
XT5-XT7-XT7 M	Measuring package for XT5-XT7	***
XT5-XT7-XT7 M	Adaptive protection for XT5-XT7	***
XT5-XT7-XT7 M	Frequency protection for XT5-XT7	***
XT5-XT7-XT7 M	Power protection for XT5-XT7	***
XT5-XT7-XT7 M	ROCOF protection for XT5-XT7	***
XT5-XT7-XT7 M	Advanced voltages protection for XT5-XT7	***
XT5-XT7-XT7 M	Voltages protection for XT5-XT7	***

#### Solutions

Size	Type	U.S. Ordering Code
XT2-XT4-XT5-XT7-XT7 M	IPS – Interface protection	***
XT2-XT4-XT5-XT7-XT7 M	Load shedding – adaptive	***
XT2-XT4-XT5-XT7-XT7 M	Load shedding – predictive	***
XT2-XT4-XT5-XT7-XT7 M	Synchro reclosing	***
XT2-XT4-XT5-XT7-XT7 M	ATS License main-tie-main closed	***
XT2-XT4-XT5-XT7-XT7 M	ATS License main-main closed	***
XT2-XT4-XT5-XT7-XT7 M	ATS License main-tie-main open	***
XT2-XT4-XT5-XT7-XT7 M	ATS License main-main open	***
XT2-XT4-XT5-XT7-XT7 M	Ekip Power controller	Factory installed only

\*\*\*Available through ABB Marketplace or through the configurator

#### Metering functionality

Size	Type	U.S. Ordering Code
XT2-XT4	Class 1 Power & Energy Metering	Factory installed only
XT5-XT7	Class 1 Power & Energy Metering	Factory installed only

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units and other accessories for trip units



Ekip Multimeter Display

### Display and supervision systems

#### Display and supervision systems

Size	Type	U.S. Ordering Code
XT2-XT4-XT5-XT7-XT7 M	Ekip Programming	ZEAEKPPGM
XT2-XT4-XT5-XT7-XT7 M	Ekip Multimeter display on front of switchboard	ZEAMM
XT2-XT4-XT5-XT7-XT7 M	Ekip Control panel for 10 circuit breakers	ZEAEKPCP10
XT2-XT4-XT5-XT7-XT7 M	Ekip Control panel for 30 circuit breakers	ZEAEKPCP30
XT2-XT4-XT5-XT7-XT7 M	Ekip View software for 30 circuit breakers	Factory installed only
XT2-XT4-XT5-XT7-XT7 M	Ekip View software for 60 circuit breakers	Factory installed only
XT2-XT4-XT5-XT7-XT7 M	Ekip View software for unlimited circuit breakers	Factory installed only

### Other accessories for trip units

#### Test and configuration

Size	Type	U.S. Ordering Code
XT2-XT4-XT5 – XT6-XT7-XT7 M	Ekip TT – Trip test unit	ZEAEKPTT
XT2-XT4-XT5 – XT6-XT7-XT7 M	Ekip T&P – Programming and test unit	EKIP
XT2-XT4-XT5 – XT6-XT7-XT7 M	Ekip Bluetooth key	EKIPBT

## Ordering codes for Tmax XT accessories

Accessories for electronic Ekip Touch trip units and other accessories for trip units



— Current sensor



— Homopolar sensor

### Current sensor

#### Current sensor for neutral conductor outside the circuit breaker

Size	Type	U.S. Ordering Code
XT2	CT External neutral 10A Ekip Dip	KXT2ECT10
XT2	CT External neutral 25A Ekip Dip	KXT2ECT25
XT2	CT External neutral 60A Ekip Dip	KXT2CT60
XT2	CT External neutral 100A Ekip Dip	KXT2ECT100
XT2	CT External neutral 125A Ekip Dip	KXT2CT125
XT2	CS External neutral In ≤ 60A Ekip Touch	KXT2CTUTCHA60
XT2	CS External neutral In ≥ 100A Ekip Touch	KXT2CTUTCHA100
XT2	CS External neutral In ≤ 60A Ekip Touch with voltage	KXT2CTUTCHV60
XT2	CS External neutral In ≥ 100A Ekip Touch with voltage	KXT2CTUTCHV100
XT4	CT External neutral 40A Ekip Dip	KXT4ECT40
XT4	CT External neutral 60A Ekip Dip	KXT4CT60
XT4	CT External neutral 100A Ekip Dip	KXT4ECT100
XT4	CT External neutral 150A Ekip Dip	KXT4CT150
XT4	CT External neutral 225A Ekip Dip	KXT4CT225
XT4	CT External neutral 250A Ekip Dip	KXT4ECT250
XT4	CS External neutral Ekip Touch	KXT4CTUTCHA
XT4	CS External neutral Ekip Touch with voltage	KXT4CTUTCHV
XT5	CS External neutral 250A Ekip Dip	KXT5CTUDIPA250
XT5	CS External neutral 300A Ekip Dip	KXT5CTUDIPA300
XT5	CS External neutral 400A Ekip Dip	KXT5CTUDIPA400
XT5	CS External neutral 600A Ekip Dip	KXT5CTUDIPA600
XT5	CS External neutral Ekip Touch	KXT5CTUTCHA
XT5	CS External neutral voltage Ekip Touch	KXT5CTUTCHV
XT6	CS External neutral 600A Ekip Dip	KXT6CTUDIPA600
XT6	CS External neutral 800A Ekip Dip	KXT6CTUDIPA800
XT6	CS External neutral 1000A Ekip Dip	KXT6CTEDIPA1000
XT7-XT7M	CS External neutral up to 1200A	ZE1NCT

#### Homopolar toroid for the grounding conductor of the main power supply



— Toroid RC

Size	Type	U.S. Ordering Code
XT7-XT7 M	Homopolar toroid 100A	ZEAHT100
XT7-XT7 M	Homopolar toroid 250A	ZEAHT250
XT7-XT7 M	Homopolar toroid 400A	ZEAHT400
XT7-XT7 M	Homopolar toroid 800A	ZEAHT800
XT7-XT7 M	Toroid RC 3p	ZE12RCT1



## Ordering codes for Tmax XT accessories

Other accessories for trip units



Rating plug

### Rating plug for Ekip trip units

#### Rating plug – loose supply

Size	Type	U.S. Ordering Code
XT5	Rating plug in = 250 A	KXT5RP250UL
XT5	Rating plug in = 300 A	KXT5RP300UL
XT5	Rating plug in = 400 A	KXT5RP400UL
XT5	Rating plug in = 500 A	KXT5RP500UL
XT5	Rating plug in = 600 A	KXT5RP600UL
<b>Ekip Dip LS/I, Ekip Dip LIG, Ekip M Dip I, Ekip G Dip LS/I – BASIC trip units</b>		
XT7-XT7 M	Rating plug in = 600 A XT7-XT7 M	LXT7RP600ULB
XT7-XT7 M	Rating plug in = 800 A XT7-XT7 M	KXT7RP800ULB
XT7-XT7 M	Rating plug in = 1000 A XT7-XT7 M	KXT7RP1000ULB
XT7-XT7 M	Rating plug in = 1200 A XT7-XT7 M	KXT7RP1200ULB
<b>Ekip Dip LSI, Ekip Dip LSIG, Ekip Touch all</b>		
XT7-XT7 M	Rating plug in = 600 A XT7-XT7 M	KXT7RP600ULA
XT7-XT7 M	Rating plug in = 800 A XT7-XT7 M	KXT7RP800ULA
XT7-XT7 M	Rating plug in = 1000 A XT7-XT7 M	KXT7RP1000ULA
XT7-XT7 M	Rating plug in = 1200 A XT7-XT7 M	KXT7RP1200ULA

# Spectra™ RMS

SE150 Frame

15-150A Circuit Breakers

Electronic Trip

Suitable for Reverse Feed

UL/cUL File E-11592

<sup>1</sup>Adjustable Instantaneous with Tracking Short Time (Long Time established via Interchangeable Rating Plugs).

Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

## Product Number Structure

		<b>S</b>	<b>E</b>	<b>D</b>	<b>A</b>	<b>2</b>	<b>4</b>	<b>A</b>	<b>T</b>	<b>0030</b>		
<b>Family</b>											<b>Sensor (Max Amps)</b>	
S = Spectra™											0030	0100
<b>Frame Rating (Amperes)</b>											0060	0150
E = 150											<b>Trip Function</b>	
											T = LSI <sup>1</sup>	
<b>Interruption Rating (480V)</b>											<b>Trip Unit</b>	
D = 18 kA	L = 65 kA										A = RMS1	
H = 25 kA	P = 100 kA											
<b>Continuous Load Rating</b>											<b>Voltage Rating</b>	
A = Standard											4 = 480V	6 = 600V
											<b>Poles</b>	
											2 = 2 poles	3 = 3-poles

## SED, SEH, SEL, SEP<sup>2</sup>; 2-Pole, 150A, 480 Vac Max., (IEC 947-2: 160A, 415 Vac Max.)

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac							
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	18kA	25kA	65kA	100kA	Product Number	Wire Range
	Low	High			Product Number	Product Number	Product Number	Product Number		
15	43	182	SRPE30A15	30	SEDA24AT0030 <sup>3</sup>	SEHA24AT0030 <sup>3</sup>	SELA24AT0030 <sup>3</sup>	SEPA24AT0030 <sup>3</sup>	TCAL18	12-3/0 Cu 12-3/0 Al
20	58	254	SRPE30A20							
25	73	332	SRPE30A25							
30	87	415	SRPE30A30							
35	104	453	SRPE60A35	60	SEDA24AT0060 <sup>3</sup>	SEHA24AT0060 <sup>3</sup>	SELA24AT0060 <sup>3</sup>	SEPA24AT0060 <sup>3</sup>		
40	118	501	SRPE60A40							
45	134	583	SRPE60A45							
50	148	637	SRPE60A50							
60	178	777	SRPE60A60	100	SEDA24AT0100	SEHA24AT0100	SELA24AT0100	SEPA24AT0100		
70	206	863	SRPE100A70							
80	236	999	SRPE100A80							
90	267	1138	SRPE100A90							
100	297	1280	SRPE100A100	150	SEDA24AT0150	SEHA24AT0150	SELA24AT0150	SEPA24AT0150		
110	328	1426	SRPE150A110							
125	374	1640	SRPE150A125							
150	450	1991	SRPE150A150							

## SED, SEH, SEL, SEP<sup>2</sup>; 3-Pole, UL/cUL: 150A, 600 Vac Max., (IEC 947-2: 160A, 690 Vac Max.)

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac							
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	18kA	25kA	65kA	100kA	Product Number	Wire Range
	Low	High			Product Number	Product Number	Product Number	Product Number		
15	43	182	SRPE30A15	30	SEDA36AT0030 <sup>3</sup>	SEHA36AT0030 <sup>3</sup>	SELA36AT0030 <sup>3</sup>	SEPA36AT0030 <sup>3</sup>	TCAL18	12-3/0 Cu 12-3/0 Al
20	58	254	SRPE30A20							
25	73	332	SRPE30A25							
30	87	415	SRPE30A30							
35	104	453	SRPE60A35	60	SEDA36AT0060 <sup>3</sup>	SEHA36AT0060 <sup>3</sup>	SELA36AT0060 <sup>3</sup>	SEPA36AT0030 <sup>3</sup>		
40	118	501	SRPE60A40							
45	134	583	SRPE60A45							
50	148	637	SRPE60A50							
60	178	777	SRPE60A60	100	SEDA36AT0100	SEHA36AT0100	SELA36AT0100	SEPA36AT0100		
70	206	863	SRPE100A70							
80	236	999	SRPE100A80							
90	267	1138	SRPE100A90							
100	297	1280	SRPE100A100	150	SEDA36AT0150	SEHA36AT0150	SELA36AT0150	SEPA36AT0150		
110	328	1426	SRPE150A110							
125	374	1640	SRPE150A125							
150	450	1991	SRPE150A150							

<sup>2</sup>SEL, SEP UL current limiting.

<sup>3</sup>When used with 15-50A Rating Plug, UL listed for HID (high intensity discharge).

Note: All Spectra™ breakers UL listed as HACR type. All Spectra™ breakers marked CE.

**Spectra™ RMS**

SE150 Frame

15-150A Circuit Breakers

Electronic Trip

Suitable for Reverse Feed

UL/cUL File E-11592

**SE150 Add-on 3-Pole Limiters**

Maximum Ampere Rating	Product Number	kAIC @600 Vac	Use With Breaker/MCP Frame
150	SAXSEL36150	65	SEL
150	SAXSEP36150	100	SEP

**Reference Publications**

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

<b>SE Breaker</b>	
Installation Instructions	GEH-5591
Rating Plug	GEH-5549
<b>SE Breaker Accessories</b>	
Bell Alarm & Aux. Switch	GEH-5593
Shunt Trip & UVR	GEH-5551
Padlock Device	GEJ-3056
Lug Kits	GEJ-3051
Control Wire Lug Kit	GEH-5881
Add-On Limiters	DEH-4671
STDA Flange Handle	GEH-5314
STDA Operating Mechanism	GEH-5684
TDR Operating Mechanism	GEH-5609
TDM Operating Mechanism	GEH-5611
Motor Operator	GEH-5613
Cable Operator Mechanism	GEH-6290
Operator Adapter Kits	GEH-5688
Mechanical Interlock	GEH-5615
Warning Labels	GEH-5686
<b>SE Mounting Provisions</b>	
Plug-in Mounting Base	GEH-4610
Back Connected Studs	GEJ-3609
Outline Drawing	168D1109SH1
Series Ratings	DET-008
Spectra™ RMS Circuit Breakers in Combination Cooper Bussman Distribution Block	DET-781

**Spectra™ RMS**  
 SF250 Frame  
 70-250A Circuit Breakers  
 Electronic Trip  
 Suitable for Reverse Feed  
 UL/cUL File E-11592

<sup>1</sup>Adjustable Instantaneous with Tracking Short Time (Long Time established via Interchangeable Rating Plugs).  
 Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

**Product Number Structure**

	<b>S</b>	<b>F</b>	<b>H</b>	<b>A</b>	<b>2</b>	<b>4</b>	<b>A</b>	<b>T</b>	<b>0250</b>	
<b>Family</b>	S = Spectra™									<b>Sensor (Max Amps)</b>
<b>Frame Rating (Amperes)</b>	F = 250									0250
<b>Interruption Rating (480V)</b>	H = 35 kA									<b>Trip Function</b>
	L = 65 kA									T = LSI <sup>1</sup>
	P = 100 kA									<b>Trip Unit</b>
<b>Continuous Load Rating</b>	A = Standard									A = RMS1
										<b>Voltage Rating</b>
										4 = 480V      6 = 600V
										<b>Poles</b>
										2 = 2 poles      3 = 3-poles

**SFH, SFL, SFP<sup>2</sup>; 2-Pole, UL/cUL: 250A, 480 Vac Max., (IEC 947-2: 250A, 415 Vac Max.)**

Rating Plug			Frame				Terminal Lugs for Front Connection (Cu/Al)		
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	35kA	65kA	100kA	Product Number	Wire Range
	Low	High			Product Number	Product Number	Product Number		
	70	205			700	SRPF250A70	250		
80	235	800	SRPF250A80						
90	265	900	SRPF250A90						
100	295	1000	SRPF250A100						
110	325	1100	SRPF250A110						
125	370	1250	SRPF250A125						
150	440	1500	SRPF250A150						
175	515	1750	SRPF250A175						
200	590	2000	SRPF250A200						
225	665	2250	SRPF250A225						
250	736	2500	SRPF250A250						

**SFH, SFL, SFP<sup>2</sup>; 3-Pole, UL/cUL: 250A, 600 Vac Max., (IEC 947-2: 250A, 690 Vac Max.)**

Rating Plug			Frame				Terminal Lugs for Front Connection (Cu/Al)		
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	35kA	65kA	100kA	Product Number	Wire Range
	Low	High			Product Number	Product Number	Product Number		
	70	205			700	SRPF250A70	250		
80	235	800	SRPF250A80						
90	265	900	SRPF250A90						
100	295	1000	SRPF250A100						
110	325	1100	SRPF250A110						
125	370	1250	SRPF250A125						
150	440	1500	SRPF250A150						
175	515	1750	SRPF250A175						
200	590	2000	SRPF250A200						
225	665	2250	SRPF250A225						
250	736	2500	SRPF250A250						

<sup>2</sup>SFL, SFP UL current limiting.  
 Note: All Spectra™ breakers UL listed as HACR type. All Spectra™ breakers marked CE.

**Spectra™ RMS**

SF250 Frame

70-250A Circuit Breakers

Electronic Trip

Suitable for Reverse Feed

UL/cUL File E-11592

**Reference Publications**

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

SE Breaker	
Installation Instructions	GEH-5591
Rating Plug	GEH-5549
SE Breaker Accessories	
Bell Alarm & Aux. Switch	GEH-5593
Shunt Trip & UVR	GEH-5551
Padlock Device	GEJ-3056
Lug Kits	GEJ-3045
Control Wire Lug Kit	GEH-5882
STDA Flange Handle	GEH-5314
STDA Operating Mechanism	GEH-5684
TDR Operating Mechanism	GEH-5609
TDM Operating Mechanism	GEH-5611
Motor Operator	GEH-5613
Cable Operator Mechanism	GEH-6290
Operator Adapter Kits	GEH-5688
Mechanical Interlock	GEH-5615
Mounting Hardware Kits	GEH-5659
SE Mounting Provisions	
Plug-in Mounting Base	GEH-4610
Back Connected Studs	GEJ-3635
Outline Drawing	168D1103SH1
Series Ratings	DET-008
Spectra™ RMS Circuit Breakers in Combination	
Cooper Bussman Distribution Block	DET-781

# Spectra™ RMS

SG600 Frame  
125-600A Circuit Breakers  
Electronic Trip (Digital, Solid State)  
Suitable for Reverse Feed  
UL/cUL File E-11592

<sup>1</sup>SGD rated 65kA at 240V.

<sup>2</sup>Adjustable Instantaneous with Tracking Short Time (Long Time established via Interchangeable Rating Plugs).  
Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

### Product Number Structure

**S G D A 2 2 A T 0400**

<b>Family</b> S = Spectra™										<b>Sensor (Max Amps)</b> 0400                      0600
<b>Frame Rating (Amperes)</b> G = 600										<b>Trip Function</b> T = LSI <sup>2</sup>
<b>Interruption Rating (480V)</b> D = 65 kA <sup>1</sup> L = 65 kA H = 35 kA                              P = 100 kA										<b>Trip Unit</b> A = RMS1
<b>Continuous Load Rating</b> A = Standard                      L = 100% H = 100%                              P = 100%										<b>Voltage Rating</b> 2 = 240V                              6 = 600V
										<b>Poles</b> 2 = 2 poles                              3 = 3-poles

### SGD; 400A, 240 Vac Max., (IEC 947-2: 400A, 690 Vac Max.)

Rating Plug			Frame				Terminal Lugs for Front Connection (Cu/Al)	
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	65kA Product Number	Product <sup>4</sup> Number	Wire Range
	Low	High						
125	380	1275	SRPG400A125	400	2	SGDA22AT0400 <sup>3</sup>	2-pole lug kit TCLK265	(2) 2/0-500 Cu or (1) 8-600 Cu
150	455	1530	SRPG400A150					
175	530	1785	SRPG400A175					
200	605	2040	SRPG400A200					
225	680	2295	SRPG400A225		3	SGDA32AT0400 <sup>3</sup>	3-pole lug kit TCLK365	(2) 2/0-500 Al or (1) 8-600 Al
250	755	2550	SRPG400A250					
300	905	3060	SRPG400A300					
350	1060	3570	SRPG400A350					
400	1210	4080	SRPG400A400					

### SGH, SGL, SGP<sup>5</sup>; 400A, 600 Vac Max., (IEC 947-2: 400A, 690 Vac Max.)

Rating Plug			Frame				Terminal Lugs for Front Connection (Cu/Al)			
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	35kA	65kA	100kA	Product <sup>4</sup> Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
125	380	1275	SRPG400A125	400	2	SGHA26AT0400	SGLA26AT0400	SGPA26AT0400	2-pole lug kit TCLK265	(2) 2/0-500 Cu or (1) 8-600 Cu
150	455	1530	SRPG400A150							
175	530	1785	SRPG400A175							
200	605	2040	SRPG400A200							
225	680	2295	SRPG400A225		3	SGHA36AT0400	SGLA36AT0400	SGPA36AT0400	3-pole lug kit TCLK365	(2) 2/0-500 Al or (1) 8-600 Al
250	755	2550	SRPG400A250							
300	905	3060	SRPG400A300							
350	1060	3570	SRPG400A350							
400	1210	4080	SRPG400A400							

### SGH, SGL<sup>5</sup>, SGP<sup>5</sup>; 600A, 600 Vac Max., (IEC 947-2: 630A, 690 Vac Max.)

Rating Plug			Frame				Terminal Lugs for Front Connection (Cu/Al)			
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	35kA	65kA	100kA	Product <sup>4</sup> Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
250	765	2530	SRPG600A250	600	2	SGHA26AT0600	SGLA26AT0600	SGPA26AT0600	2-pole lug kit TCLK265	(2) 2/0-500 Cu or (1) 8-600 Cu
300	915	3035	SRPG600A300							
350	1070	3545	SRPG600A350							
400	1220	4050	SRPG600A400							
450	1375	4555	SRPG600A450		3	SGHA36AT0600	SGLA36AT0600	SGPA36AT0600	3-pole lug kit TCLK365	(2) 2/0-500 Al or (1) 8-600 Al
500	1525	5060	SRPG600A500							
600	1830	6075	SRPG600A600							

<sup>3</sup>Rated 240 Vac max.  
<sup>4</sup>Order one kit for either line or load end; two kits required for both.

<sup>5</sup>SGL, SGP UL current limiting.  
Note: All Spectra™ breakers UL listed as HACR type. All Spectra™ breakers marked CE.

**Spectra™ RMS**

SG600 Frame, 100% Rated  
 125-600A Circuit Breakers  
 Electronic Trip (Digital, Solid State)  
 Suitable for Reverse Feed  
 UL/cUL File E-11592

**SGH, SGL<sup>2</sup>, SGP<sup>2</sup>; 100% UL Rated, 3-Pole: 400A, 600 Vac Max.; (IEC 947-2: 400A , 690 Vac Max.)**

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac							
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	35kA	65kA	100kA	Product <sup>1</sup> Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
	125	380				1275	SRPG400A125	400		
150	455	1530	SRPG400A150							
175	530	1785	SRPG400A175							
200	605	2040	SRPG400A200							
225	680	2295	SRPG400A225	(2) 2/0-500 Al or (1) 8-600 Al						
250	755	2550	SRPG400A250							
300	905	3060	SRPG400A300							
350	1060	3570	SRPG400A350							
400	1210	4080	SRPG400A400							

<sup>1</sup>Order one kit for either line or load end; two kits required for both.

<sup>2</sup>SGL , SGP UL current limiting.

Note: All Spectra™ breakers UL listed as HACR type. All Spectra™ breakers marked CE.

**SGH, SGL<sup>2</sup>, SGP<sup>2</sup>; 100% UL Rated, 3-Pole: 600A, 600 Vac Max.; (IEC 947-2: 630A , 690 Vac Max.)**

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac							
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	35kA	65kA	100kA	Product <sup>1</sup> Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
	250	765				2530	SRPG600A250	600		
300	915	3035	SRPG600A300							
350	1070	3545	SRPG600A350							
400	1220	4050	SRPG600A400							
450	1375	4555	SRPG600A450	(2) 2/0-500 Al (1) 8-600 Al						
500	1525	5060	SRPG600A500							
600	1830	6075	SRPG600A600							

## Spectra™ RMS

SG600 Frame

125-600A Circuit Breakers

Electronic Trip (Digital, Solid State)

Suitable for Reverse Feed

UL/cUL File E-11592

### Reference Publications

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

<b>SG Breaker</b>	
Installation Instructions	GEH-5663
Rating Plug	GEH-5549
MVT & MVT Plus PM Rating Plugs	GEH-5887
<b>SG Breaker Accessories</b>	
Bell Alarm & Aux. Switch	GEH-5593
Shunt Trip & UVR	GEH-5551
Lug Kits	GEJ-3052
Trip Unit Covers	GEH-5664
Door Ring Interlock Catch Kits	GEH-5662
STDA Flange Handle	GEH-5314
STDA Operating Mechanism	GEH-5684
TDR Operating Mechanism	GEH-5654
TDM Operating Mechanism	GEH-5653
Motor Operator	GEH-5657
Cable Operator Mechanism	GEH-6290
Cable Operators	DEH-40467
Mechanical Interlock	GEH-5697
<b>SG Mounting Provisions</b>	
Plug-in Mounting Base	GEH-5655
Back Connected Studs	GEH-5665
Outline Drawing	208C1549SH1, 2, 3
Series Ratings	DET-008



**Spectra™ RMS**  
 SK 1200 Frame  
 300-1200A Circuit Breakers  
 Electronic Trip, Digital, Solid-State  
 Suitable for Reverse Feed  
 UL/cUL File E-11592

<sup>1</sup>Adjustable Instantaneous with Tracking Short Time (Long Time established via Interchangeable Rating Plugs).  
 Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

**Product Number Structure**

		<b>S</b>	<b>K</b>	<b>H</b>	<b>A</b>	<b>2</b>	<b>6</b>	<b>A</b>	<b>T</b>	<b>0800</b>		
<b>Family</b> S = Spectra™												<b>Sensor (Max Amps)</b> 0800 1200
<b>Frame Rating (Amperes)</b> K = 1200												<b>Trip Function</b> T = LSI <sup>1</sup>
<b>Interruption Rating (480V)</b> H = 50 kA L = 65 kA P = 100 kA												<b>Trip Unit</b> A = RMS1
<b>Continuous Load Rating</b> A = Standard L = 100% H = 100% P = 100%												<b>Voltage Rating</b> 6 = 600V
												<b>Poles</b> 2 = 2 poles 3 = 3-poles

**SKH, SKL, SKP; 800A, 600 Vac Max., (IEC 947-2:800A 690 Vac Max.)**

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	50kA	65kA	100kA	Product Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
	300	940				3015	SRPK800A300	800		
400	1255	4015	SRPK800A400	SKHA36AT0800	SKLA36AT0800	SKPA36AT0800				
500	1570	5020	SRPK800A500	3	SKHA26AT0800	SKLA26AT0800	SKPA26AT0800		TCAL81	(3) 3/0-500 Al
600	1875	6195	SRPK800A600		SKHA36AT0800	SKLA36AT0800	SKPA36AT0800			
700	2155	7420	SRPK800A700		SKHA26AT0800	SKLA26AT0800	SKPA26AT0800			
800	2440	8705	SRPK800A800		SKHA36AT0800	SKLA36AT0800	SKPA36AT0800			

**SKH, SKL, SKP; 1200A, 600 Vac Max., (IEC 947-2: 1250A, 690 Vac Max.)**

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	50kA	65kA	100kA	Product Number	Wire Range
	Low	High				Product Number	Product Number	Product Number		
	600	1825				6110	SRPK1200A600	1200		
700	2125	7125	SRPK1200A700	SKHA36AT1200	SKLA36AT1200	SKPA36AT1200				
800	2430	8145	SRPK1200A800	3	SKHA26AT1200	SKLA26AT1200	SKPA26AT1200		TCAL125	(4) 250-500 Al
900	2735	9160	SRPK1200A900		SKHA36AT1200	SKLA36AT1200	SKPA36AT1200			
1000	3040	10180	SRPK1200A1000		SKHA26AT1200	SKLA26AT1200	SKPA26AT1200			
1175	3574	11961	SRPK1200A1175		SKHA36AT1200	SKLA36AT1200	SKPA36AT1200			
1200	3650	12215	SRPK1200A1200	SKHA26AT1200	SKLA26AT1200	SKPA26AT1200				

Note: All Spectra™ breakers UL listed as HACR type.  
 All Spectra™ breakers marked CE.

## Spectra™ RMS

SK 1200 Frame, 100% Rated  
300-1200A Circuit Breakers  
Electronic Trip, Digital, Solid-State  
Suitable for Reverse Feed  
UL/cUL File E-11592

### SKH, SKL, SKP; 100% UL Rated, 3-Pole: 800A, 600 Vac Max.; (IEC 947-2: 800A, 690 Vac Max.)

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac					Product Number	Wire Range	
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	50kA	65kA			100kA
	Low	High				Product Number	Product Number			Product Number
300	940	3015	SRPK800A300	800	3	SKHH36AT0800	SKLL36AT0800	SKPP36AT0800	TCAL81	
400	1255	4015	SRPK800A400							
500	1570	5020	SRPK800A500							
600	1875	6195	SRPK800A600							
700	2155	7420	SRPK800A700							
800	2440	8705	SRPK800A800							
(3) 3/0-500 Cu										
(3) 3/0-500 Al										

### SKH, SKL, SKP; 100% UL Rated, 3-Pole: 1200A, 600 Vac Max.; (IEC 947-2: 1200A, 690 Vac Max.)

Rating Plug			Frame					Terminal Lugs for Front Connection (Cu/Al)		
			UL 489 IC @ 480 Vac					Product Number	Wire Range	
Ampere Rating	Adjustable Instantaneous Trip Range Amps		Product Number	Current Sensor	Poles	50kA	65kA			100kA
	Low	High				Product Number	Product Number			Product Number
600	1825	6110	SRPK1200A600	1200	3	SKHH36AT1000	SKLL36AT1000	SKPP36AT1000	TCAL125	
700	2125	7125	SRPK1200A700							
800	2430	8145	SRPK1200A800							
900	2735	9160	SRPK1200A900							
1000	3040	10180	SRPK1200A1000							
1200	3650	12215	SRPK1200A1200							
(4) 250-500 Cu										
(4) 250-500 Al										

<sup>1</sup>100% UL rated SK1200 supplied with backconnected assembly which increases breaker depth. Refer to outline drawings for details. Lugs not required

Note: All Spectra™ breakers UL listed as HACR type. All Spectra™ breakers marked CE.

### Reference Publications

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

SK Breaker	
Installation Instructions	GEH-5592
Rating Plug	GEH-5549
MVT & MVT Plus PM Rating Plugs	GEH-5887
SG Breaker Accessories	
Bell Alarm & Aux. Switch	GEH-5593
Shunt Trip & UVR	GEH-5551
Lug Shields for SK1200	GEH-5699
Lug Shields for SKP	GEH-5685
Trip Unit Covers	GEH-5664
Mounting of Integral Handle	GEH-5610
STDA Flange Handle	GEH-5314
STDA Operating Mechanism	GEH-5684
TDM Operating Mechanism	GEH-5612
Coupling TDM Operating	GEH-5873
Motor Operator	GEH-5614
Cable Operator Mechanism	GEH-6291
Handle Extension	GEH-5648
Padlocking Device - Standard	GEH-5877
Face Mounted Interlock	GEH-5698
Mechanical Interlock	GEH-5874
SK Mounting Provisions	
Plug-in Mounting Base	GEH-4342
Back Connected Studs	GEJ-3619
Outline Drawing	208C1757SH1
Outline Drawing (1200A 100%)	168D1678SH2
Series Ratings	DET-008

## Industrial Circuit Breakers

### Spectra™ RMS Circuit Breakers with microEntelliGuard™ Trip Units

#### microEntelliGuard™ Trip Unit

The microEntelliGuard™ trip unit is the newest and most advanced trip unit available in the Spectra™ line of molded case circuit breakers. The trip unit design is based on the EntelliGuard™ TU trip unit platform. The microEntelliGuard™ trip unit incorporates the advanced features and protective functions available on the EntelliGuard™ TU trip unit and is available in the 600-amp Spectra™ G and 1200-amp Spectra™ K frames. Spectra™ breakers with microEntelliGuard™ trip units allow you to select the enhanced system protection, coordination, metering and communication options required for the application and allow a fully coordinated and integrated electrical system across ABB's entire line of molded case, insulated case and low voltage circuit breakers. Spectra™ breakers with microEntelliGuard™ trip units use all of the same power management system accessories as the MicroVersaTrip™ PM trip units (some new power management accessories are available for breakers that incorporate some of the new features offered with the microEntelliGuard™ trip unit).

#### Standard Features

- Adjustable Long-Time pickup and delay bands with three curve shapes (MVT I<sup>2</sup>t, CB and Fuse I<sup>4</sup>t) for optimal system coordination (includes thermal memory for enhanced system protection)
- Adjustable Short-Time pickup with multiple delay bands, curve slopes, I<sup>2</sup>t IN/OUT, and OFF setting
- Adjustable Instantaneous pickup
- 3-Phase ammeter
- Backlit LCD display with five-button tactile keypad for function selection and set point adjustment and sealable, clear LEXAN cover for tamper resistant settings
- LED Status Indicator to show “health” of trip unit
- Trip Target indication and local pickup warning signal
- Interchangeable/Universal rating plugs
- Test set jack for GTUTK20 test kit
- True RMS current sensing for accurate response to high-harmonic content waveforms
- EMI immunity per ANSI C37.90



Spectra™ SG600 and SK1200 breakers with microEntelliGuard™ Trip Units

#### Optional Features

- Ground Fault (Trip or Alarm) pickup and delay bands with multiple slopes, I<sup>2</sup>t IN/OUT for optimal system coordination
- Neutral Protection provides overload protection on the system neutral
- Zone Selective Interlocking (ZSI) capability on Short Time, Ground Fault and Instantaneous settings for optimal system coordination and selectivity
- Reduced Energy Let-Through (RELT) setting for enhanced equipment and personnel protection
- Advanced metering option includes the ability to monitor current, voltage, energy, frequency, power factor, power (real/reactive/apparent) and peak power demand
- Modbus communications system with user selectable address assignment for communication directly with EnerVista Viewpoint power system monitoring software
- Waveform capture for enhanced system diagnostics
- Protective Relays that are user selectable in any combination
  - Voltage Unbalance
  - Current Unbalance
  - Under Voltage
  - Over Voltage
  - Power Reversal
  - Load Alarm
- Input relay for RELT signal or remote tripping of the breaker
- Two programmable output relays for enhanced signaling and diagnostics
- Control Power option provides connection capability for +24Vdc control power via the distribution cable system

#### Other Features

- UL Listed for reverse feed and HACR type (standard)
- UL Listed 100% continuous current rating (optional)
- UL Listed Current Limiting (optional on SG Frame)
- Internal Accessories (Shunt Trip, Undervoltage Release, Auxiliary Contacts, Bell Alarm) – UL Listed for field installation and common across the entire line of Spectra™ RMS breakers

## Industrial Circuit Breakers

### Spectra™ RMS Circuit Breakers with microEntelliGuard™ Trip Units

#### microEntelliGuard™ Trip Unit Characteristics

	Long Time (C)	Short Time	Instantaneous & Reduced Energy Let-Through			Ground Fault (Trip or Alarm)
Pickup Settings	0.50 to 1.00 in increments of 0.05 (X, multiples of rating plug amps)	1.5 to 9.0 in increments of 0.5 (multiples of current setting C)	SK-H, L, P = 2.0 to 10.0 - Instantaneous 1.5 to 10.0 - RELT in increments of 0.5 (X, multiples of current sensor amps)			0.4 to 1.0 in increments of 0.05 multiples of current sensor amps S)
			Breaker	Sensor Ampere	INST	
			SKS, SKT	800 1000 1200	2.0 to 25.5 2.0 to 20.5 2.0 to 17.0	
Delay Bands <sup>1</sup> Settings (seconds)		1-12 (.07 to .49)	-	-	-	2-15 (.06 to .92)
Slope/Shape	MVT 1-4 (I <sup>2</sup> t) (2.4, 4.9, 9.8, 202) C1-C10 (thermal) (.2 to 9.6,15.42) F1-F7 (I <sup>4</sup> t) (.02 to 0.9)	0 - I <sup>2</sup> t out 1 - low 2 - med 3 - high	-	-	-	0 - definite time 1 - I <sup>2</sup> t 2 - selective ground fault 3 - fuse shape (I <sup>4</sup> t)

X = Rating Plug Amperes

S = Sensor Ampere Rating

C = Long Time Current Setting Pickup = LT pickup setting x Rating Plug Amperes "X"

<sup>1</sup>Delay Bands shown at 600% of current setting at lower limit of each band

<sup>2</sup>Maximum setting not available on SG

#### Spectra™ RMS Circuit Breakers with microEntelliGuard™ Trip Units

	Last Digit of Catalog Number Equals >>>	X	2	6	8	Advanced Features and Communications
		•	•			Metering (Basic)
				•	•	Metering (Advanced)
			•	•	•	Modbus
				•	•	Waveform Capture
<b>Functions</b>	<b>Accuracy and Description</b>				•	Protective Relays
Current (A)	Amps ± 4% Phase Selectable	•	•	•	•	
Voltage (V)	Volts ± 2% L-L or L-N and Phase Selectable			•	•	
Real Power (kW)	kWatts ± 6% L-L or L-N			•	•	
Reactive Power (kVAR)	kVAR ± 4% L-L or L-N			•	•	
Apparent Power (kVA)	kVA ± 4% L-L or L-N			•	•	
Peak Power Demand (kW)	kWatts ± 4%			•	•	
Energy (kWh/MWh)	kWh ± 7%			•	•	
Frequency (Hz)	± 1 Hz			•	•	
Power Factor (%)	± 7% max			•	•	
Communications	EnerVista Viewpoint (Modbus)		•	•	•	
Waveform Capture	COMTRADE file format			•	•	
Voltage Unbalance Relay	Adjustable Pickup 10 to 50% Adjustable Delay 1 to 15 sec or OFF				•	
Current Unbalance Relay	Adjustable Pickup 10 to 50% Adjustable Delay 1 to 15 sec or OFF				•	
Under Voltage Relay	Adjustable Pickup 50 to 90% Adjustable Delay 1 to 15 sec or OFF				•	
Over Voltage Relay	Adjustable Pickup 110 to 150% Adjustable Delay 1 to 15 sec or OFF				•	
Power Reversal Relay	Adjustable Pickup 10 to 990 KW Adjustable Delay 1 to 15 sec or OFF				•	
Load Alarm Relay	ON 0.55 to 1.00 x LT OFF 0.50 to 0.95 x LT				•	

## Industrial Circuit Breakers

### Spectra™ RMS Circuit Breakers with microEntelliGuard™ Trip Units

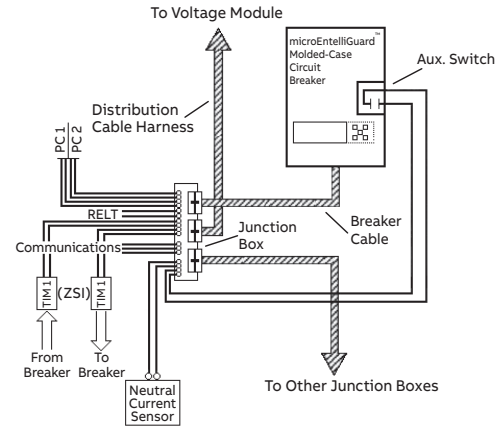
#### How to Order

- Select the appropriate breaker frame on the following pages taking into consideration the maximum ampere rating, the interrupt rating, whether or not a 100% rating is required, standard protection functions (LSI, LSIG, LSA), advanced protection functions (Neut. Prot., ZSI, RELT), and advanced features and communications (basic or advanced metering, communications, waveform capture, protective relays)
- Select the rating plug and breaker lugs from the tables provided.
- Select the required power management system accessories.
- Select other accessories as required (such as an auxiliary switch or shunt trip).
- When ordering, specify separate product numbers for each item

#### Ordering Example

SG600 ampere frame, standard load rating and 400 maximum ampere rating, 350 amp rating plug with line and load lugs. Trip functions to include adjustable long-time (L), short-time (S), instantaneous (I), ground fault alarm (A), reduced energy letthrough (RELT), and advanced metering, communications, waveform capture and protective relays. Metering and communications of voltage, current, power and breaker contact position are required. Local RELT enable is also required. The available system voltage is 480/277 Vac 3 phase/4-wire with an available fault current of 65kAIC. Power management accessories are to be mounted on plates with all of the necessary fuse protection, potential transformers, control power transformers, and required interconnect accessories. The required circuit breaker Product Number is SGLC3604L5R8.

Description	Product Number
Breaker Prefix	SGLC3604L5_ _
Adder 1 for R (RELT)	-
Adder 2 for 8 (Adv Meter/Modbus/WFC/Relay)	-
Complete Breaker	SGLC3604L5R8
Rating Plug	GTP0350U0408
Lug Kits (2)	TCLK365
Auxiliary Switch	SAUXGAB1
RELT Switch Kit	GTURSK
Power Supply Plate	SPSA480
Voltage Conditioner	GMPU7
Advanced J-Box	SDCJBBC
Distribution Cable Harness	SDCHA11
400A Neutral CT	TSRG204



#### Trip Unit Function Definitions

Long-Time (L)	Adjustable current setting Adjustable long-time delay - three curve shapes (MVT I <sup>2</sup> t, CB and Fuse I <sup>2</sup> t)
Short-Time (S)	Adjustable short-time pickup (can also be turned OFF) Adjustable short-time delay - multiple slope options I <sup>2</sup> t IN or OUT
Instantaneous (I)	Adjustable instantaneous pickup
Ground Fault (G) Ground Fault Alarm (A)	Adjustable ground fault pickup Adjustable ground fault delay - multiple slope options with I <sup>2</sup> t IN or OUT
Control Power (CP)	+24Vdc control power connection
Trip Indication Targets	Standard
Neutral Protection	Adjustable current setting on Neutral: multiple of Long-Time setting
ZSI (ST/GF/INST)	Adjustable Zone Selective Interlock settings for Short-Time, Ground Fault, and Instantaneous
RELT	Adjustable Instantaneous: Reduced Energy Let-Through mode
Metering (basic)	Amperes (A/kA) - Phase selectable
Metering (advanced)	Current (A/kA) - Phase selectable Voltage (V) - L-L or L-N and Phase selectable Real Power (kW) - L-L or L-N Reactive Power (kVAR) - L-L or L-N Apparent Power (kVA) - L-L or L-N Peak Power Demand (kW) Energy (kWh/MWh) Frequency (Hz) Power Factor (%)
Communications	Modbus with user selectable address assignment Compatible with EnerVista Viewpoint power system monitoring software
Waveform Capture	Stores 8 cycles of data on trip or signal (COMTRADE file format)
Protective Relay Functions	Voltage Unbalance - pickup/delay/OFF Current Unbalance - pickup/delay/OFF Under Voltage - pickup/delay/OFF Over Voltage - pickup/delay/OFF Power Reversal - pickup/delay/OFF Load Alarm - pickup (ON)/OFF

#### Other Features/Functions

HMI - Backlit LCD display & 5-button keypad	Ease of programming and viewing status/metering displays, tactile feel
LED Status Indicator	Visual display of trip unit's "health"
Visual pickup warning signal	For quick diagnostics and pre-trip detection
Sealable LEXAN cover for tamper resistant settings	Tamper resistant settings
Test set jack for GTURSK test kit	Fully integrated with GTURSK test kit
Long Time Thermal Memory	For enhanced system protection
Input Relay <sup>1</sup>	Dedicated if RELT enabled or set to TRIP/OFF
Qty (2) Programmable Output Contacts <sup>1</sup>	RELT (dedicated) Ground Fault Alarm Overcurrent Trip Protective Relay Trip Load Alarm Health Status

<sup>1</sup>Included on breakers with 20-pin output harness

## Industrial Circuit Breakers

### Spectra™ RMS Circuit Breakers with microEntelliGuard™ Trip Units

#### microEntelliGuard™ Trip Unit Feature and Benefit Summary

Feature	Benefit	System/Asset Protection	Long Time and Short Time Coordination	Instantaneous Selectivity	Arc Flash	System Performance	Diagnostics/Reliability
Enhanced adjustability and flexibility of time current curve shape, slope, and delay bands	Enhanced system protection via tight coordination with upstream and downstream devices including fuses	•	•		•		
Ground Fault Trip or Alarm	Enhanced system and asset protection - especially for process driven applications	•					•
Zone Selective Interlock (ST/GF)	System protection	•			•		
Zone Selective Interlock (Instantaneous)	Maximum system protection, coordination, and selectivity	•		•	•		
Reduced Energy Let-Through	Enhanced system and personnel protection	•		•	•		
Protective Relay Functions	Enhanced system and asset protection via a suite of protective relays	•					
Neutral Protection	Protection on heavy harmonic loads	•					
Sealable LEXAN Trip Unit Cover	Prevents unauthorized trip unit setting changes for maximum system, personnel, and asset protection.	•			•		
Long Time Thermal Memory	Enhanced system protection	•					
Input Relay <sup>1</sup>	System and asset protection via remote trip (dedicated if RELT enabled)	•					
Programmable Output Contacts <sup>1</sup>	Maximize system uptime via signaling on GF alarm, overcurrent trip, protective relay trip, load alarm or health status	•					•
Advanced Metering	System performance monitoring and diagnostics of critical current, voltage, and power characteristics	•				•	•
Modbus Communications	System performance monitoring, reporting and diagnostics (compatible with tEnerVista Viewpoint power system monitoring software)	•				•	•
Test Set Jack for GTUTK20 Test Kit	Maximize system uptime and enhanced diagnostics via the GTUTK20 test kit						•
Trip Indication Targets	Visual Trip indication for quick diagnostic evaluation						•
Event Log	Records last 10 trip events						•
Waveform Capture	Enhanced diagnostic feature to maximize system uptime						•
HMI - Backlit LCD Display and 5-button Keypad	Ease of programming and viewing status/metering displays						•
LED Status Indicator	Enhanced diagnostic feature to maximize system uptime (visual display of trip unit's "health")						•
Visual Pickup Warning Signal	For quick diagnostics and pre-trip detection						•

<sup>1</sup>Included on breakers with 20-pin output harness

#### Spectra™ microEntelliGuard™ Reference Publications

Spectra™ G Breaker w/ microEntelliGuard™ Trip Unit	GEH-700
Spectra™ K Breaker w/ microEntelliGuard™ Trip Unit	GEH-701
Universal Rating Plug	DEH-41318
MET Sealable Cover Kits	GEH-707
microEntelliGuard™ Trip Unit Users Manual	GEH-702
microEntelliGuard™ Jump Start Programming Instructions	GEH-703
Distribution Cable Terminal Block (SDCTBA11)	GEH-6257
Distribution Cable Terminal Blocks - MET only (SDCTBA11C & SDCTBA22C)	GEH-706
Distribution Cable Junction Box SDCJBB	DEH-006
Advanced Distribution Cable Junction Box SDCJBBC	GEH-704
Distribution Cable Harness (12-pin)	GEH-6255

Distribution Cable Extension (12-pin)	GEH-6256
Distribution Cable Extension - MET only (20-pin)	GEH-705
Power Supply Plate	GEH-6251
Power Supply Assembly	GEH-6253
Voltage Conditioner GMPU	GEH-6259
Voltage Conditioner SVCAA - OBSOLETE	GEH-6254
Voltage Conditioner Plate SVCA - OBSOLETE	GEH-6252
Voltage Module ADSVMA - OBSOLETE	GEH-6250
GTU Digital Test Kit (GTUTK20)	DEH-4568
Shunt Trip and UVR Instructions	GEH-5551
Aux Switch and Bell Alarm	GEH-5593
Accessories - Door Ring Interlock Catch Kits	GEI-70594
TIM-1 Zone Selective Interlock Module	GEK-64467

# Industrial Circuit Breakers

60-600A Circuit Breakers

Electronic Trip

Spectra™ RMS

SG600 with microEntelliGuard™ Trip Units<sup>1</sup>

## Product Number Structure

	S	G	H	C	3	6	01	L3	X	X	
<b>Family</b> S = Spectra™											<b>Advanced Features &amp; Communications</b> X = Metering (Basic) 2 = Metering (Basic) + Modbus 6 = Metering (Adv) +Modbus + Waveform Capture 8 = Metering (Adv) +Modbus + Waveform Capture + Protective Relays  <b>Advanced Protection Functions</b> X = None K = Neutral Protection Z = ZSI (ST/GF) T = ZSI (ST/GF/INST) R = RELT L = ZSI (ST/GF) + RELT M = ZSI (ST/GF) + Neutral Protection N = ZSI (ST/GF) + RELT + Neutral Protection V = RELT + Neutral Protection P = ZSI (ST/GF/INST) + RELT S = ZSI (ST/GF/INST) + Neutral Protection W = ZSI (ST/GF/INST) + RELT + Neutral Protection  <b>Standard Protection Functions</b> L3 = LSI <sup>2</sup> L4 = LSIG L5 = LSIA L7 = LSI-CP <sup>3</sup>
<b>Frame Rating (Amperes)</b> G = 600											
<b>Interruption Rating (kA @ 480V)</b> H = 35 kA L = 65 kA P = 100 kA											
<b>Continuous Load Rating</b> C = Standard L = 100% H = 100% P = 100%											
<b>Poles</b> 3 = 3-poles											
<b>Voltage Rating</b> 6 = 600V											
<b>Max Amps</b> 01 = 150A 04 = 400A 06 = 600A											

Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).  
 L = Long Time, S = Short Time, I = Instantaneous, G = Ground Fault, A = Ground Fault Alarm  
 ZSI = Zone Selective Interlocking, RELT = Reduced Energy Let-Through

<sup>2</sup>Without a Control Power connection, unless required by Advanced Protection Functions or Advanced Features & Communications.  
<sup>3</sup>With a Control Power connection. The only valid trailing product digits for L7 are XX.

Note: All Spectra™ breakers are UL listed as HACR type.

## microEntelliGuard™ Rating Plug Selection

Rating Plug Product Numbers	Trip Amps	SG (Max Amps)		
		150	400	600
GTP0060U0101	60	x		
GTP0080U0101	80	x		
GTP0100U0103	100	x		
GTP0125U0103	125	x		
GTP0150U0104	150	x	x	
GTP0200U0204	200		x	
GTP0225U0306	225		x	x
GTP0250U0407	250		x	x
GTP0300U0408	300		x	x
GTP0350U0408	350		x	x
GTP0400U0410	400		x	x
GTP0450U0612	450			x
GTP0500U0613	500			x
GTP0600U0616	600			x

Range of available rating plugs for each frame indicated by x.

## Terminal Lugs for Front Connection (Cu/Al)

Sensor	Product Number	Wire Range
150 to 600	3 Pole Lug Kit TCLK365 <sup>4</sup>	(2) 2/0 - 500 Cu/Al or (1) 8 - 600 Cu or (1) 6 - 600 Al

<sup>4</sup>May require 24 Vdc control power and voltage sensing signals. Refer to pages 6-187 to 6-193.

<sup>4</sup>Order one kit for either line or load end; two kits required for both.

Note: Reference BuyLog page 6-217 for alternate lug options.

## Industrial Circuit Breakers

60-600A Circuit Breakers

Electronic Trip

Spectra™ RMS

SG600 with microEntelliGuard™ Trip Units<sup>1</sup>

### microEntelliGuard™, Standard UL Rated

SG600 Line, Suitable for Reverse Feed, UL/cUL File E-11592

SGL, SGP UL Current Limiting; 3-Pole, UL/cUL: 600Vac Max., IEC 947-2: 630A, 690 Vac Max

Max Amps	Standard Protection Function	35kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
150	LSI	SGHC3601L3 __	SGLC3601L3 __	SGPC3601L3 __	Product Number is not complete. Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SGHC3601L4 __	SGLC3601L4 __	SGPC3601L4 __	
	LSIA <sup>2</sup>	SGHC3601L5 __	SGLC3601L5 __	SGPC3601L5 __	
	LSI-CP <sup>3</sup>	SGHC3601L7XX	SGLC3601L7XX	SGPC3601L7XX	
400	LSI	SGHC3604L3 __	SGLC3604L3 __	SGPC3604L3 __	
	LSIG <sup>2</sup>	SGHC3604L4 __	SGLC3604L4 __	SGPC3604L4 __	
	LSIA <sup>2</sup>	SGHC3604L5 __	SGLC3604L5 __	SGPC3604L5 __	
	LSI-CP <sup>3</sup>	SGHC3604L7XX	SGLC3604L7XX	SGPC3604L7XX	
600	LSI	SGHC3606L3 __	SGLC3606L3 __	SGPC3606L3 __	
	LSIG <sup>2</sup>	SGHC3606L4 __	SGLC3606L4 __	SGPC3606L4 __	
	LSIA <sup>2</sup>	SGHC3606L5 __	SGLC3606L5 __	SGPC3606L5 __	
	LSI-CP <sup>3</sup>	SGHC3606L7XX	SGLC3606L7XX	SGPC3606L7XX	

### microEntelliGuard™, 100% UL Rated

SG600 Line, Suitable for Reverse Feed, UL/cUL File E-11592

SGL, SGP UL Current Limiting; 3-Pole, UL/cUL: 600Vac Max., IEC 947-2: 630A, 690 Vac Max

Max Amps	Standard Protection Function	35kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
150	LSI	SGHH3601L3 __	SGLL3601L3 __	SGPP3601L3 __	Product Number is not complete. Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SGHH3601L4 __	SGLL3601L4 __	SGPP3601L4 __	
	LSIA <sup>2</sup>	SGHH3601L5 __	SGLL3601L5 __	SGPP3601L5 __	
	LSI-CP <sup>3</sup>	SGHH3601L7XX	SGLL3601L7XX	SGPP3601L7XX	
400	LSI	SGHH3604L3 __	SGLL3604L3 __	SGPP3604L3 __	
	LSIG <sup>2</sup>	SGHH3604L4 __	SGLL3604L4 __	SGPP3604L4 __	
	LSIA <sup>2</sup>	SGHH3604L5 __	SGLL3604L5 __	SGPP3604L5 __	
	LSI-CP <sup>3</sup>	SGHH3604L7XX	SGLL3604L7XX	SGPP3604L7XX	
600	LSI	SGHH3606L3 __	SGLL3606L3 __	SGPP3606L3 __	
	LSIG <sup>2</sup>	SGHH3606L4 __	SGLL3606L4 __	SGPP3606L4 __	
	LSIA <sup>2</sup>	SGHH3606L5 __	SGLL3606L5 __	SGPP3606L5 __	
	LSI-CP <sup>3</sup>	SGHH3606L7XX	SGLL3606L7XX	SGPP3606L7XX	

#### Product Suffix 1

##### Advanced Protection Functions

X = None

K = Neutral Protection

Z = ZSI (ST/GF)

T = ZSI (ST/GF/INST)

R = RELT

L = ZSI (ST/GF) + RELT

M = ZSI (ST/GF) + Neutral Protection

N = ZSI (ST/GF) + RELT + Neutral Protection

V = RELT + Neutral Protection

P = ZSI (ST/GF/INST) + RELT

S = ZSI (ST/GF/INST) + Neutral Protection

W = ZSI (ST/GF/INST) + RELT + Neutral Protection

#### Product Suffix 2

##### Advanced Features and Communications

X = Metering (Basic)

2 = Metering (Basic) + Modbus

6 = Metering (Adv) + Modbus + Waveform Capture

8 = Metering (Adv) + Modbus + Waveform Capture + Relays

<sup>1</sup>May require 24 Vdc control power and voltage sensing signals. Refer to pages 6-187 to 6-193.

<sup>2</sup>For grounded neutral systems (1 phase/3-wire or 3 phase/4-wire) a neutral current sensor is required. Refer to page 6-191.

<sup>3</sup>For +24 Vdc Control Power Accessories refer to pages 6-187 to 6-191.

Notes: All Spectra™ breakers are UL listed as HACR type.

Neutral Protection requires a neutral current sensor. Refer to page 6-191.

ZSI (Zone Selective Interlock) requires TIM1 ZSI module and 24 Vdc control power (refer to pages 6-187 to 6-191 for accessories).

RELT (Reduced Energy Let-Through), Modbus, Ground Fault Alarm and Waveform Capture options require 24 Vdc control power (refer to pages 6-187 to 6-191 for accessories).



# Industrial Circuit Breakers

300-1200A Circuit Breakers

Electronic Trip

Spectra™ RMS

SK1200 with microEntelliGuard™ Trip Units<sup>1</sup>

## Product Number Structure

S	K	H	C	3	6	08	L3	X	X
<b>Family</b> S = Spectra™								<b>Advanced Features &amp; Communications</b> X = Metering (Basic) 2 = Metering (Basic) + Modbus 6 = Metering (Adv) +Modbus + Waveform Capture 8 = Metering (Adv) +Modbus + Waveform Capture + Protective Relays	
<b>Frame Rating (Amperes)</b> K = 1200								<b>Advanced Protection Functions</b> X = None K = Neutral Protection Z = ZSI (ST/GF) T = ZSI (ST/GF/INST) R = RELT L = ZSI (ST/GF) + RELT M = ZSI (ST/GF) + Neutral Protection N = ZSI (ST/GF) + RELT + Neutral Protection V = RELT + Neutral Protection P = ZSI (ST/GF/INST) + RELT S = ZSI (ST/GF/INST) + Neutral Protection W = ZSI (ST/GF/INST) + RELT + Neutral Protection	
<b>Interruption Rating (kA @ 480V)</b> H = 50 L = 65 P = 100 T = 65 Extended Instantaneous (Selective) <sup>5</sup> S = 100 Extended Instantaneous (Selective) <sup>5</sup>								<b>Standard Protection Functions</b> L3 = LSI <sup>3</sup> L4 = LSIG L5 = LSIA L7 = LSI-CP <sup>4</sup>	
<b>Continuous Load Rating</b> C = Standard P = 100% H = 100% S = 100% L = 100% T = 100%									
<b>Poles</b> 3 = 3-poles									
<b>Voltage Rating</b> 6 = 600V 4 = 480V <sup>5</sup>									
<b>Max Amps</b> 08 = 800A 10 = 1000A <sup>2</sup> 12 = 1200A									

Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

L = Long Time, S = Short Time, I = Instantaneous, G = Ground Fault, A = Ground Fault Alarm  
ZSI = Zone Selective Interlocking, RELT = Reduced Energy Let-Through

<sup>1</sup>Max Amps Option 10 only available on 100% rated breakers.

<sup>2</sup>Without a Control Power connection, unless required by Advanced Protection Functions or Advanced Features & Communications.

<sup>4</sup>With a Control Power connection. The only valid trailing product digits for L7 are XX.

<sup>5</sup>SC, SS, TC and TT catalog codes are optimized for selectivity (extended instantaneous) and will carry a 480 Vac maximum voltage rating.

Note: All Spectra™ breakers are UL listed as HACR type.

## microEntelliGuard™ Rating Plug Selection

Rating Plug Product Numbers	Trip Amps	SG (Max Amps)		
		800	1000	1200
GTP0300U0408	300	x		
GTP0350U0408	350	x		
GTP0400U0410	400	x		
GTP0450U0612	450	x	x	x
GTP0500U0613	500	x	x	x
GTP0600U0616	600	x	x	x
GTP0700U0816	700	x	x	x
GTP0750U0820	750	x	x	x
GTP0800U0820	800	x	x	x
GTP0900U1020	900		x	x
GTP1000U1025	1000		x	x
GTP1100U1225	1100			x
GTP1200U1232	1200			x

Range of available rating plugs for each frame indicated by x.

## Terminal Lugs for Front Connection (Cu/Al)

Sensor	Product Number	Wire Range
800	TCAL81	(3) 3/0 - 500 Cu/Al
12006	TCAL125	(4) 250 - 500 Cu/Al

<sup>3</sup>May require 24 Vdc control power and voltage sensing signals. Refer to pages 6-187 to 6-193.

<sup>6</sup>Lugs not required on 100% rated SK1200; these breakers are supplied with a back-connected assembly which increases breaker depth. Refer to outline drawing 168D1663 Sh1 for details.

Note: Reference BuyLog page 6-217 for alternate lug options.

# Industrial Circuit Breakers

300-1200A Circuit Breakers

Electronic Trip

Spectra™ RMS

SK1200 with microEntelliGuard™ Trip Units<sup>1</sup>

## microEntelliGuard™, Standard UL Rated

SK1200 Line, Suitable for Reverse Feed, UL/cUL File E-11592

3-Pole, UL/cUL: 600Vac Max., IEC 947-2: 1250A, 690 Vac Max (SKL, SKP only)

Max Amps	Standard Protection Function	50kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
800	LSI	SKHC3608L3 __	SKLC3608L3 __	SKPC3608L3 __	Product Number is not complete.
	LSIG <sup>2</sup>	SKHC3608L4 __	SKLC3608L4 __	SKPC3608L4 __	
	LSIA <sup>2</sup>	SKHC3608L5 __	SKLC3608L5 __	SKPC3608L5 __	
	LSI-CP <sup>3</sup>	SKHC3608L7XX	SKLC3608L7XX	SKPC3608L7XX	
1200	LSI	SKHC3612L3 __	SKLC3612L3 __	SKPC3612L3 __	Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SKHC3612L4 __	SKLC3612L4 __	SKPC3612L4 __	
	LSIA <sup>2</sup>	SKHC3612L5 __	SKLC3612L5 __	SKPC3612L5 __	
	LSI-CP <sup>3</sup>	SKHC3612L7XX	SKLC3612L7XX	SKPC3612L7XX	

## microEntelliGuard™, 100% UL Rated

SK1200 Line, Suitable for Reverse Feed, UL/cUL File E-11592

3-Pole, UL/cUL: 600Vac Max., IEC 947-2: 1250A, 690 Vac Max (SKL, SKP only)

Max Amps	Standard Protection Function	50kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
800	LSI	SKHH3608L3 __	SKLL3608L3 __	SKPP3608L3 __	Product Number is not complete.
	LSIG <sup>2</sup>	SKHH3608L4 __	SKLL3608L4 __	SKPP3608L4 __	
	LSIA <sup>2</sup>	SKHH3608L5 __	SKLL3608L5 __	SKPP3608L5 __	
	LSI-CP <sup>3</sup>	SKHH3608L7XX	SKLL3608L7XX	SKPP3608L7XX	
1000	LSI	SKHH3610L3 __	SKLL3610L3 __	SKPP3610L3 __	Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SKHH3610L4 __	SKLL3610L4 __	SKPP3610L4 __	
	LSIA <sup>2</sup>	SKHH3610L5 __	SKLL3610L5 __	SKPP3610L5 __	
	LSI-CP <sup>3</sup>	SKHH3610L7XX	SKLL3610L7XX	SKPP3610L7XX	
1200	LSI	SKHH3612L3 __	SKLL3612L3 __	SKPP3612L3 __	Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SKHH3612L4 __	SKLL3612L4 __	SKPP3612L4 __	
	LSIA <sup>2</sup>	SKHH3612L5 __	SKLL3612L5 __	SKPP3612L5 __	
	LSI-CP <sup>3</sup>	SKHH3612L7XX	SKLL3612L7XX	SKPP3612L7XX	

## microEntelliGuard™ Extended Instantaneous (Selective) Spectra K

SK1200 Line, Suitable for Reverse Feed, UL/cUL File E-11592, 3-Pole, UL/cUL: 480 Vac Max., IEC 947-2: 1250A

Max Amps	Standard Protection Function	Standard UL Rated 65kA Product Number Prefix	100% UL Rated 65kA Product Number Prefix	Standard UL Rated 100kA Product Number Prefix	100% UL Rated 100kA Product Number Prefix	Product Number Suffix (two digits)
800	LSI	SKTC3408L3 __	SKTT3408L3 __	SKSC3408L3 __	SKSS3408L3 __	Product Number is not complete.
	LSIG <sup>2</sup>	SKTC3408L4 __	SKTT3408L4 __	SKSC3408L4 __	SKSS3408L4 __	
	LSIA <sup>2</sup>	SKTC3408L5 __	SKTT3408L5 __	SKSC3408L5 __	SKSS3408L5 __	
	LSI-CP <sup>2</sup>	SKTC3408L7XX	SKTT3408L7XX	SKSC3408L7XX	SKSS3408L7XX	
1000	LSI	-	SKTT3410L3 __	-	SKSS3410L3 __	Select one value from each suffix tables below.
	LSIG <sup>2</sup>	-	SKTT3410L4 __	-	SKSS3410L4 __	
	LSIA <sup>2</sup>	-	SKTT3410L5 __	-	SKSS3410L5 __	
	LSI-CP <sup>2</sup>	-	SKTT3410L7XX	-	SKSS3410L7XX	
1200	LSI	SKTC3412L3 __	SKTT3412L3 __	SKSC3412L3 __	SKSS3412L3 __	Select one value from each suffix tables below.
	LSIG <sup>2</sup>	SKTC3412L4 __	SKTT3412L4 __	SKSC3412L4 __	SKSS3412L4 __	
	LSIA <sup>2</sup>	SKTC3412L5 __	SKTT3412L5 __	SKSC3412L5 __	SKSS3412L5 __	
	LSI-CP <sup>2</sup>	SKTC3412L7XX	SKTT3412L7XX	SKSC3412L7XX	SKSS3412L7XX	

### Product Suffix 1

Advanced Protection Functions	
X = None	M = ZSI (ST/GF) + Neutral Protection
K = Neutral Protection	N = ZSI (ST/GF) + RELT + Neutral Protection
Z = ZSI (ST/GF)	V = RELT + Neutral Protection
T = ZSI (ST/GF/INST)	P = ZSI (ST/GF/INST) + RELT
R = RELT	S = ZSI (ST/GF/INST) + Neutral Protection
L = ZSI (ST/GF) + RELT	W = ZSI (ST/GF/INST) + RELT + Neutral Protection

### Product Suffix 2

Advanced Features and Communications	
X = Metering (Basic)	
2 = Metering (Basic) + Modbus	
6 = Metering (Adv) + Modbus Waveform Capture	
8 = Metering (Adv) + Modbus + Waveform Capture + Relays	

<sup>1</sup>May require 24 Vdc control power and voltage sensing signals.

Refer to pages 6-187 to 6-193.

<sup>2</sup>For grounded neutral systems (1 phase/3-wire or 3 phase/4-wire) a neutral current sensor is required. Refer to page 6-191.

<sup>3</sup>For +24 Vdc Control Power Accessories refer to pages 6-187 to 6-191.

Notes: All Spectra™ breakers are UL listed as HACR type.

Neutral Protection requires a neutral current sensor. Refer to page 6-191.

ZSI (Zone Selective Interlock) requires TIM1 ZSI module and 24 Vdc control power (refer to pages 6-187 to 6-191 for accessories).

RELT (Reduced Energy Let-Through), Modbus, Ground Fault Alarm and Waveform Capture options require 24 Vdc control power (refer to pages 6-187 to 6-191 for accessories).

## Power Management System Accessories

Spectra™ RMS Circuit Breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM Trip Units  
 All Devices UL Listed for Factory or Field Installation (UL File No. E-57253)

### Required Accessories

MicroVersaTrip™ Plus	MicroVersaTrip™ PM	microEntelliGuard™	Feature	Required Accessories
		•	Neutral Protection	Neutral CT
•	•	•	Ground Fault (3 phase/4-wire or 1 phase/3-wire)	Terminal Board (or Junction Box) Distribution Cable(s) Power Supply Plate/Assy <sup>2</sup> for GFA only <sup>1</sup>
		•	Ground Fault Alarm (3 phase/4-wire or 1 phase/3-wire)	
•	•	•	Control Power	Power Supply Plate/Assy <sup>2</sup>
	•	•	Advanced Metering, Protective Relays	Power Supply (Plate or Assy <sup>2</sup> ) Voltage Conditioner Terminal Board (or Junction Box) Distribution Cable(s)
	•	•	Communications <sup>3</sup>	Power Supply Plate/Assy <sup>2</sup> Terminal Board (or Junction Box) Distribution Cable(s) Auxiliary Switch <sup>4</sup>
		•	Zone Selective Interlock (ZSI)	Power Supply Plate/Assy <sup>2</sup> Terminal Board with ZSI (or Advanced Junction Box) Distribution Cable(s) TIM-1 module
		•	Reduced Energy Let-Through (RELT)	Power Supply Plate/Assy <sup>2</sup> Terminal Board with RELT (or Advanced Junction Box) Distribution Cable(s)
		•	Waveform Capture	Power Supply Plate/Assy <sup>2</sup> Terminal Board (or Advanced Junction Box) Distribution Cable(s)

<sup>1</sup>Power supply required for Ground Fault Alarm only.

<sup>2</sup>Requires fuse protection and other components - refer to accessory instruction sheet

<sup>3</sup>MicroVersaTrip™ PM (Comnet), microEntelliGuard™ (Modbus)

<sup>4</sup>Requires Auxiliary Switch with gold-plated contacts

### Power Supply

The Power Supply Plate is used to provide +24 Vdc control power to Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units via the Distribution Cable System. The Power Supply Plate includes the Power Supply Assembly (product number SPSAA) as an integral component and also includes fuse protection for AC source input. Supplemental +24 Vdc input terminals are provided for backup control power applications. Not suitable for 400 Hz.



Power Supply Plate

Description	Voltage Rating	Product Number
The Power Supply Plate is rated 24 watts (+24 Vdc at 1.0 amperes) and has the maximum capacity to power a distribution Cable System consisting of 20 breakers and has a maximum system cable length of 40 feet.	120 Vac	SPSA120
	208 Vac	SPSA208
	240 Vac	SPSA240
	480 Vac	SPSA480
	600 Vac	SPSA600



Voltage Conditioner

### Voltage Conditioner

The Voltage Conditioner is used to provide voltage sensing signals to Spectra™ RMS molded case circuit breakers with microEntelliGuard™ and MicroVersaTrip™ PM trip units via the distribution cable system. The GMPU Voltage Conditioner includes internal power transformers. It replaces the SVCA voltage conditioner plates and is DIN rail mountable. The Voltage Conditioner requires a control power source of +24 Vdc to operate properly. The Power Supply Assembly or Power Supply Plate can provide this required input. The unit also requires AC direct voltage inputs from the AC source. A communications network connection is provided. Not suitable for 400 Hz.

OBSOLETE Voltage Conditioner Plate Product Number	Voltage Rating and Service Type	Comments	Replacement Product Number	Voltage Rating and Service Type
SVCA120Y	120 Vac Wye system	Phase to Neutral potential	GMPU5	120, 208, 230 Vac systems
SVCA208Y	208 Vac Wye system	Phase to Phase potential		
SVCA240D	240 Vac Delta system	Phase to Phase potential	GMPU6	
SVCA277Y	277 Vac Wye system	Phase to Neutral potential		
SVCA480Y	480 Vac Wye system	Phase to Phase potential	GMPU7	400, 480, 600 Vac systems
SVCA480D	480 Vac Delta system	Phase to Phase potential		
SVCA600D	600 Vac Delta system	Phase to Phase potential		

Note: The Voltage Conditioner has the maximum capacity to power a Distribution Cable System consisting of 20 breakers and has a maximum system cable length of 40 feet.

## Power Management System Accessories

Spectra™ RMS Circuit Breakers with microEntelliGuard™,  
MicroVersaTrip™ Plus and MicroVersaTrip™ PM Trip Units

All Devices UL Listed for Factory or Field Installation (UL File No. E-57253)



Distribution Cable Junction Box

### Distribution Cable Junction Box

The Distribution Cable Junction Box is a modular connector used to provide quick, easy and reliable attachment of Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units to the Distribution Cable System. Two different junction boxes are available depending on which trip system and functionality is selected. Each junction box contains two Distribution Cable Harness connectors, one breaker connector, and a terminal block for the connection of a neutral current sensor and an auxiliary switch. Additional terminal points are included on SDCJBBC for ground fault alarm, RELT, and ZSI. (For breakers with microEntelliGuard™ trip units, refer to the table on page 6-189 to determine breaker harness connector configuration)

Description	Product Number
Distribution Cable Junction Box (for breakers with 12-pin connector)	SDCJBB
Advanced Distribution Cable Junction Box (for breakers with 20-pin connector)	SDCJBBC <sup>2</sup>



Distribution Cable Harness

### Distribution Cable Harness<sup>1</sup>

The Distribution Cable Harness is a modular connector used to carry electronic signals and/or control power between Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units and power management system accessories. The harnesses come in three lengths and have 12-pin connectors at both ends.

Description	Harness Length	Product Number
Distribution Cable Harness	11 inches	SDCHA11
Distribution Cable Harness	30 inches	SDCHA30
Distribution Cable Harness	60 inches	SDCHA60



Distribution Cable Extension

### Distribution Cable Extension

The Distribution Cable Extension is used to provide modular expansion of the Distribution Cable System. Two different cable extensions are available depending on which trip system and functionality are selected. Spectra™ RMS molded case circuit breakers with MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units use the 12-pin connector extension cable only. Spectra™ RMS molded case circuit breakers with microEntelliGuard™ trip units use either the 12-pin or 20-pin connector extension cable depending on the breaker's harness connector configuration. (For breakers with microEntelliGuard™ trip units, refer to the table on page 6-189 to determine breaker harness connector configuration)

Description	Harness Length	Product Number
Distribution Cable Extension (for breakers with 12-pin connector)	30 inches	SDCEA30
Distribution Cable Extension (for breakers with 20-pin connector)	30 inches	SDCEA30C <sup>2</sup>



Distribution Cable Terminal Block

### Distribution Cable Terminal Block

The Distribution Cable Terminal Block can be used in lieu of the Distribution Cable Junction Box as an alternate means of connection to Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units. The Distribution Cable Terminal Block plugs into the breaker harness connector allowing direct connection of signals via screw terminals. This allows point-to-point wiring in lieu of using the Distribution Cable System. Three different cable extensions are available depending on which trip system and functionality are selected. (Refer to the table on page 6-189 for terminal block connection configurations)

Description	Trip Unit Type	Product Number
Distribution Cable Terminal Block (for breakers with 12-pin connector)	MicroVersaTrip™ & microEntelliGuard™	SDCTBA11
Distribution Cable Terminal Block (for breakers with 20-pin connector)	microEntelliGuard™	SDCTBA11C <sup>2</sup>
	microEntelliGuard™	SDCTBA22C2

<sup>1</sup>Cannot be connected together. Use 30 inch Distribution Cable Extension (SDCEA30) to extend.

<sup>2</sup>For use with microEntelliGuard™ only.

## Power Management System Accessories

Spectra™ RMS Circuit Breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM Trip Units

All Devices UL Listed for Factory or Field Installation (UL File No. E-57253)

### Breakers with microEntelliGuard™ Trip Units Breaker Harness Connector Configuration

Circuit Breaker Catalog Digits 9 & 10				
	L3	L4	L5	L7
K2	SDCTBA11	SDCTBA11	SDCTBA22C	n/a
K6	SDCTBA11	SDCTBA11	SDCTBA22C	n/a
K8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
KX	SDCTBA11	SDCTBA11	SDCTBA11C	n/a
L2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
L6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
L8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
LX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
M2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
M6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
M8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
MX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
N2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
N6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
N8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
NX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
P2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
P6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
P8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
PX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
R2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
R6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
R8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
RX	SDCTBA11C	SDCTBA11C	SDCTBA11C	n/a
S2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
S6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
S8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
SX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
T2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
T6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
T8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
TX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
V2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
V6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
V8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
VX	SDCTBA11C	SDCTBA11C	SDCTBA11C	n/a
W2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
W6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
W8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
WX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
X2	SDCTBA11	SDCTBA11	SDCTBA22C	n/a
X6	SDCTBA11	SDCTBA11	SDCTBA22C	n/a
X8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
XX	NONE	SDCTBA11	SDCTBA11C	SDCTBA11
Z2	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
Z6	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
Z8	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a
ZX	SDCTBA22C	SDCTBA22C	SDCTBA22C	n/a

Circuit Breaker Catalog Digits 11 & 12

### Distribution Cable Terminal Block Connection Configurations

Terminal Description	SDCTBA11 12-pin Connector	SDCTBA11C 20-pin Connector	SDCTBA22C 20-pin Connector
Trip Unit Type	MicroVersaTrip™ & microEntelliGuard™	microEntelliGuard™ only	microEntelliGuard™ only
POWER (+24Vdc)	•	•	•
POWER (common)	•	•	•
Communications +	•		•
Communications -	•		•
Aux Switch (red)	•		•
Aux Switch (white)	•		•
Voltage - Ph A	•		•
Voltage - Ph B	•		•
Voltage - Ph C	•		•
Neutral CT (black)	•	•	•
Neutral CT (white)	•	•	•
ZSI input +			•
ZSI input -			•
ZSI output +			•
ZSI output -			•
RELT input +		•	•
RELT input -		•	•
RELT output +		•	•
RELT/GFA output -		•	•
GFA output +		•	•

## Power Management System Accessories

Spectra™ RMS Circuit Breakers with microEntelliGuard™,  
MicroVersaTrip™ Plus and MicroVersaTrip™ PM Trip Units

All Devices UL Listed for Factory or Field Installation (UL File No. E-57253)



Power Supply Assembly

### Power Supply Assembly

The Power Supply Assembly is used to provide +24 Vdc control power to Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units via the Distribution Cable System. The assembly requires a minimum input voltage of 85 Vac to operate properly (the maximum voltage rating is 240 Vac). Supplemental +24 Vdc input terminals are provided for backup control power applications. The input must be fused with 1/2 ampere class CC fuses (not included). Not suitable for 400 Hz.

Description	Voltage Rating	Product Number
The Power Supply Assembly is rated 24 watts (+24 Vdc @ 1.0 ampere) and has the maximum capacity to power a Distribution Cable System consisting of 20 breakers and has a maximum system cable length of 40 feet.	85 - 240 Vac	SPSAA



Voltage Conditioner Assembly

### Voltage Conditioner Assembly

The Voltage Conditioner Assembly is used to provide voltage sensing signals to Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units via the Distribution Cable System. The Voltage Conditioner Assembly requires a control power source of +24 Vdc to operate properly (the Power Supply Assembly or Power Supply Plate can provide this required input). The unit also requires 120 Vac voltage inputs from the secondary of three 1.0 VA high accuracy potential transformers (not included). The primary side of the potential transformers must be fused with three, 1/2 ampere class CC fuses (not included). A communications network connection is provided. Not suitable for 400 Hz.

Description	Voltage Rating	Product Number
Requires 120 Vac voltage inputs from the secondary of three 1.0 VA high accuracy potential transformers	120 Vac	SVCAA

Note: The Voltage Module has the maximum capacity to power a Distribution Cable System consisting of 20 breakers and has a maximum system cable length of 40 feet.



Voltage Module Exterior View



Voltage Module Interior View

### Voltage Modules

The Voltage Module is used as a Spectra™ Series Switchboard component to provide +24 Vdc control power to Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units via the Distribution Cable System. The Voltage Module also provides voltage sensing signals to Spectra™ RMS molded case circuit breakers with microEntelliGuard™ and MicroVersaTrip™ PM trip units on the same Distribution Cable System. The Voltage Module contains both a Power Supply Plate and a Voltage conditioner as integral components. It also includes fuse protection for the AC source input terminals (the module's pressure connectors which connect to the switchboard bus bars). A communication network connection is provided as well as supplemental +24 Vdc input terminals for backup control power applications (microEntelliGuard™ trip units communicate via Modbus; MicroVersaTrip™ PM communicate via Commnet). Seven versions are available. Not suitable for 400 Hz.

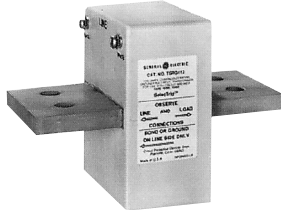
Voltage Rating and Service Type	Comments	Product Number
120 Vac Wye system	Phase to Neutral potential	ADSVMA120Y
208 Vac Wye system	Phase to Phase potential	ADSVMA208Y
240 Vac Delta system	Phase to Phase potential	ADSVMA240D
277 Vac Wye system	Phase to Neutral potential	ADSVMA277Y
480 Vac Wye system	Phase to Phase potential	ADSVMA480Y
480 Vac Delta system	Phase to Phase potential	ADSVMA480D
600 Vac Delta system	Phase to Phase potential	ADSVMA600D

Note: The Voltage Module has the maximum capacity to power a Distribution Cable System consisting of 20 breakers and has a maximum system cable length of 40 feet.

**Accessories - Other**

Spectra™ RMS Circuit Breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM Trip Units

All Devices UL Listed for Factory or Field Installation Except Where Noted



Neutral Current Sensor

**Neutral Current Sensor**

The Neutral Current Sensor is used in conjunction with Spectra™ RMS molded case circuit breakers with microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units that are optioned with either the ground fault or neutral protection and the breaker is connected to a grounded neutral service (3 phase/4-wire or 1 phase/3-wire). The neutral current sensor provides an input signal to the breaker trip unit. Breakers connected to a service without a neutral (3 phase/3-wire) do not require an external connection or shorting of the breaker cable connector for ground fault to function properly.

Breaker Type	Sensor Rating (S)	Product Number
SG	150	TSRG201
SG	400	TSRG204
SG	600	TSRG206
SK	800	TSKG408
SK	1200	TSKG412



Rating Plug Removal Tool

**Rating Plug Removal Tool**

The Rating Plug Removal Tool is suitable for use on all Spectra™ RMS molded case circuit breakers, regardless of the trip unit type.

Product Number
TRTOOL



Portable Battery Pack

**Portable Battery Pack**

The hand-held Portable Battery Pack provides an independent power source for microEntelliGuard™, MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units as an alternative to a test set. The battery pack is used to power up the trip unit to set or adjust trip set points when the breaker is on the bench or otherwise not powered up. For microEntelliGuard™ trip units, the battery pack connects to the trip unit through the 15-pin connector. A battery pack adapter cable is required. For MicroVersaTrip™ Plus and MicroVersaTrip™ PM trip units, the battery pack connects to the trip unit through the rating plug test jack. The battery pack requires three standard 9 Vdc alkaline batteries (not included).

Description	Product Number
Portable Battery Pack	TVPBP
Battery Pack Adapter Cable (required for microEntelliGuard™ trip units)	TVPBPACC



Battery Pack Adapter Cable

**Portable Test Set**

The portable, battery-powered test kit provides self-tests and functional trip/no trip tests. It also provides defeat of the ground fault function and can be used in conjunction with high current test equipment. Interface is via a plug on the front of the trip unit and test can be conducted with the breaker in service. Test kits use either 120 Vac power source or internal batteries (not included).

Breaker Type	Trip Unit Type	Product Number
Portable Test Set	MicroVersaTrip™ only	TVRMS2 <sup>1</sup>
	microEntelliGuard™ only	GTUTK20

<sup>1</sup>Not for use with MicroVersaTrip™ 4- or 9-Function trip units



Portable Test Kit

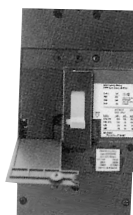
**Reduced Energy Let-Through (RELT) Switch Kit**

The RELT switch kit is used to switch the trip unit into Reduced Energy Let-Through Mode. The kit contains a three position selector switch, contact blocks, a lockable switch cover, RELT warning label, and an 8-ft wiring harness.

Description	Product Number
RELT Switch Kit	GTURSK

## Internal Accessories

### Spectra™ RMS Circuit Breakers



Left Side Pouch



Right Side Pouch



Auxiliary Switch



Trip Test Kit



Test Rating Plug



Shunt Trip

#### Universal Field-Installable Internal Accessories

All Spectra™ RMS circuit breakers from the SE150 through the SK1200, including instantaneous-trip Mag Break motor circuit protectors and molded case switches, use the same UL listed, field-installable internal accessories that do not require cover removal to install.

#### Accessory Mounting

All accessories mount in pouches accessible from a front cover. All breakers have a left-side pouch and right-side pouch. The following combinations may be installed:

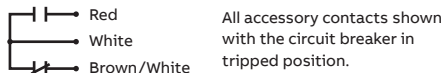
Left-Side Pouch—either shunt trip or undervoltage release plus bell alarm.

Right-Side Pouch—auxiliary switch (single or double pole)..

#### Auxiliary Switch

Auxiliary switches provide remote indication of whether the circuit breaker main contacts are opened or closed via open or closed SPDT switch elements.

Switch Rating	Number of Switch Elements	Auxiliary Switch Product Number
5A @240 Vac/ 0.5A @ 125 Vdc	1 form C	SAUXPAB1
	2 form C	SAUXPAB2
Gold-Plated Contacts 0.5A @ 30V	1 form C	SAUXGAB1
	2 form C	SAUXGAB2
One each of above types	2 form C	SAUXGPAB2



#### Spectra RMS Test Set

Provides basic trip-test functionality for all SPectra RMS, (SE, SF, SG, SK) Circuit Breakers not equipped with LCD Displays. Test Kit plus Test Rating Plug are required.

Description	Product Number
Spectra RMS Trip Tester	SPTK1
Spectra RMS Test Rating Plug	SRPT1

#### Shunt Trip

For remote tripping of breaker, use with momentary close contact. Not recommended for use with latching relay contact since electronics in shunt trip will pulse power to the coil if continuously energized, and breaker shunt tripping upon reclosure will be delayed 1-2 seconds at rated control voltage. (A short-circuit trip would be instantaneous.)

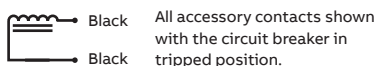
If maintained (latching relay) contact must be used and delayed shunt tripping is not acceptable, use small bell alarm in series with control power for SE150 and SF250 frames and auxiliary switch for SG600 and SK1200 breakers.

These devices are suitable for use with ground fault sensing and relaying equipment. Maximum VA is 75. AC devices are UL listed for 50-60 Hz.

Voltage		Current (mA)		Product Number
ac	dc	Inrush	Cont	
120	125	500	6.0	SAST1
240	250	400	5.0	SAST2
-	12	1000	800	SAST5 <sup>1</sup>
24	24	300	10.0	SAST3
48	48	300	10.0	SAST4

<sup>1</sup>Not suitable for use with ground fault sensing and relaying equipment.

Note: UL listed at 200,000 AIC without internal accessories, 100,000 AIC with internally mounted accessories.





## Internal Accessories

### Spectra™ RMS Circuit Breakers

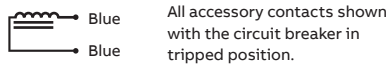


Undervoltage Release

#### Undervoltage Release

The undervoltage release provides automatic circuit breaker tripping when there is a power loss or major dip (to 35%-70% of rated voltage) in accessory control voltage. AC devices are UL listed for 50-60 Hz. Product number SAUV1 may be used with time delay unit SPUVTD (List Price \$430.00, GO-245B) (delay 0.1 to 1.0 seconds), 120 Vac input, 125 Vdc output.

Voltage		Peak Current (mA)	Product Number
AC	DC		
120	125	200	SAUV1
240	250	200	SAUV2
24	24	100	SAUV3
48	48	100	SAUV4
120	125	-	SPUVTD



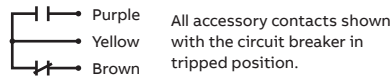
Bell Alarm Switch

#### Bell Alarm Switch

The bell alarm switch provides remote indication of whether the circuit breaker has been tripped via open or closed SPDT switch elements, but remains unchanged during "On/Off" circuit breaker operation and during operation by the "Push-to-Trip" button.

Switch Rating	Number of Switch Elements	Product Number
5A @ 240 Vac/ 0.5A @ 125 Vdc	1 form C	SABAP1
Gold-Plated Contacts 0.5A @30V	1 form C	SABAG1

Note: UL listed at 200,000 AIC without internal accessories, 100,000 AIC with internally mounted accessories.

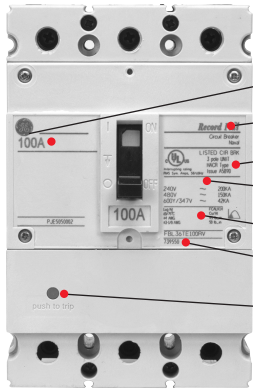


#### Actuator

All Spectra™ circuit breakers are supplied with an actuator installed in the left-side pouch. The actuator is removed when installing either a shunt trip or undervoltage release.

Description	Product Number
Replacement Actuator	SACTUATOR

# Record Plus™ FB 100



- Breaker Frame Rating
- Product Description
- Standards & Ratings
- Interrupting Ratings
- Lug Data & Torque Info
- Product Number
- Push to Trip

## Reference Publications

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

FB Breaker Installation Instructions Fact sheet	DEH-41073 DET-406
FB Breaker Accessories Bell Alarm & Aux. Switch Shunt Trip & UVR Padlock Device Lug Kits	DEH-40324 DEH-40363 DEH-40521 DEH-40532
Panelboards A-Series™ AD Plus Catalog/Selection Guide A-Series™ AD Plus Fact Sheet Spectra™ Power Panel - Plug-in Kits Spectra™ Power Panel - Bolt-on Kits Spectra™ Power Panel - Filler Plates	DEP-134 DET-397 DEH-41123 DEH-41124 DEH-41125
Outline Drawings FB 1 pole FB 2 pole FB 3 pole	10091632SH1 10091636SH1 10091641SH1
Series Ratings	DET-008

## FB Breaker Markings

cULus	UL File E-11592	
HACR	15 to 100A	1, 2, 3 Pole
HID	15 to 50A	1, 2, 3 Pole
NAVAL	15 to 100A	1, 2, 3 Pole
Cu/Al 60/75°C	15 to 100A	1, 2, 3 Pole
Current Limiting	15 to 100A	1, 2, 3 Pole

FB breakers are NOT marked LINE/LOAD and can be reverse fed.

## Trip Curves

Trip Unit Rated Current (A)	Trip Curve
15	DES-013
20	DES-014
25	DES-015
30	DES-016
35	DES-017
40	DES-018
45	DES-019
50	DES-020
60	DES-021
70	DES-022
80	DES-023
90	DES-024
100	DES-025
Peak Current Curves	DES-030
Peak I <sup>2</sup> t Curve	DES-031

## FB Breaker Markings

Type	Ampere Rating	Max AC Voltage	No. Poles	UL Listed Interrupting Ratings - rms Symmetrical Amperes (in Thousands) AC Voltage				
				240	277	347	480	600/347
FBV	15-100	600/347VAC	1	35	35	22	-	-
			2	65	-	-	35	22
			3	65	-	-	35	22
FBN	15-100	600/347VAC	1	65	65	25	-	-
			2	150	-	-	65	25
			3	150	-	-	65	25
FBH	15-100	600/347VAC	1	100	100	35	-	-
			2	200	-	-	100	35
			3	200	-	-	100	35
FBL	15-100	600/347VAC	1	100	150	42	-	-
			2	200	-	-	150	42
			3	200	-	-	150	42

FB breakers are NOT marked LINE/LOAD and can be reverse fed.

## Product Number Structure



<b>Family</b> F = Family Record Plus		
<b>Frame Rating (Amperes)</b> B = 100		
<b>Interruption Rating (480V)</b> V = 35kA N = 65kA	H = 100kA L = 150kA	
<b>Poles</b> 1 = 1 pole 2 = 2 poles 3 = 3-poles		

<b>Connection</b> R = Standard, No Lugs R2 = Load Lugs Only RV = A-Series™ AD Plus Lighting Panel (Includes Load Lugs and panel connections)
---

<b>Rated Current (A)<sup>1</sup></b> 015-100
---

<b>Type</b> TE = Fixed Thermal Magnetic
--

<b>Voltage Rating</b> 6 = 600/347
--------------------------------------

<sup>1</sup>Available ampere ratings: 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100.

# Record Plus™ FB 100

## 1-Pole Record Plus™ FB 100 Breakers IC @ 600/347 Vac

Rated Current (A)	35kA Product No.	65kA Product No.	100kA Product No.	150kA Product No.	Connection
15	FBV16TE015R	FBN16TE015R	FBH16TE015R	FBL16TE015R	No Lugs
	FBV16TE015R2	FBN16TE015R2	FBH16TE015R2	FBL16TE015R2	Load Lugs Only
	FBV16TE015RV	FBN16TE015RV	FBH16TE015RV	FBL16TE015RV	Load Lugs and Panel Connections
20	FBV16TE020R	FBN16TE020R	FBH16TE020R	FBL16TE020R	No Lugs
	FBV16TE020R2	FBN16TE020R2	FBH16TE020R2	FBL16TE020R2	Load Lugs Only
	FBV16TE020RV	FBN16TE020RV	FBH16TE020RV	FBL16TE020RV	Load Lugs and Panel Connections
25	FBV16TE025R	FBN16TE025R	FBH16TE025R	FBL16TE025R	No Lugs
	FBV16TE025R2	FBN16TE025R2	FBH16TE025R2	FBL16TE025R2	Load Lugs Only
	FBV16TE025RV	FBN16TE025RV	FBH16TE025RV	FBL16TE025RV	Load Lugs and Panel Connections
30	FBV16TE030R	FBN16TE030R	FBH16TE030R	FBL16TE030R	No Lugs
	FBV16TE030R2	FBN16TE030R2	FBH16TE030R2	FBL16TE030R2	Load Lugs Only
	FBV16TE030RV	FBN16TE030RV	FBH16TE030RV	FBL16TE030RV	Load Lugs and Panel Connections
35	FBV16TE035R	FBN16TE035R	FBH16TE035R	FBL16TE035R	No Lugs
	FBV16TE035R2	FBN16TE035R2	FBH16TE035R2	FBL16TE035R2	Load Lugs Only
	FBV16TE035RV	FBN16TE035RV	FBH16TE035RV	FBL16TE035RV	Load Lugs and Panel Connections
40	FBV16TE040R	FBN16TE040R	FBH16TE040R	FBL16TE040R	No Lugs
	FBV16TE040R2	FBN16TE040R2	FBH16TE040R2	FBL16TE040R2	Load Lugs Only
	FBV16TE040RV	FBN16TE040RV	FBH16TE040RV	FBL16TE040RV	Load Lugs and Panel Connections
45	FBV16TE045R	FBN16TE045R	FBH16TE045R	FBL16TE045R	No Lugs
	FBV16TE045R2	FBN16TE045R2	FBH16TE045R2	FBL16TE045R2	Load Lugs Only
	FBV16TE045RV	FBN16TE045RV	FBH16TE045RV	FBL16TE045RV	Load Lugs and Panel Connections
50	FBV16TE050R	FBN16TE050R	FBH16TE050R	FBL16TE050R	No Lugs
	FBV16TE050R2	FBN16TE050R2	FBH16TE050R2	FBL16TE050R2	Load Lugs Only
	FBV16TE050RV	FBN16TE050RV	FBH16TE050RV	FBL16TE050RV	Load Lugs and Panel Connections
60	FBV16TE060R	FBN16TE060R	FBH16TE060R	FBL16TE060R	No Lugs
	FBV16TE060R2	FBN16TE060R2	FBH16TE060R2	FBL16TE060R2	Load Lugs Only
	FBV16TE060RV	FBN16TE060RV	FBH16TE060RV	FBL16TE060RV	Load Lugs and Panel Connections
70	FBV16TE070R	FBN16TE070R	FBH16TE070R	FBL16TE070R	No Lugs
	FBV16TE070R2	FBN16TE070R2	FBH16TE070R2	FBL16TE070R2	Load Lugs Only
	FBV16TE070RV	FBN16TE070RV	FBH16TE070RV	FBL16TE070RV	Load Lugs and Panel Connections
80	FBV16TE080R	FBN16TE080R	FBH16TE080R	FBL16TE080R	No Lugs
	FBV16TE080R2	FBN16TE080R2	FBH16TE080R2	FBL16TE080R2	Load Lugs Only
	FBV16TE080RV	FBN16TE080RV	FBH16TE080RV	FBL16TE080RV	Load Lugs and Panel Connections
90	FBV16TE090R	FBN16TE090R	FBH16TE090R	FBL16TE090R	No Lugs
	FBV16TE090R2	FBN16TE090R2	FBH16TE090R2	FBL16TE090R2	Load Lugs Only
	FBV16TE090RV	FBN16TE090RV	FBH16TE090RV	FBL16TE090RV	Load Lugs and Panel Connections
100	FBV16TE100R	FBN16TE100R	FBH16TE100R	FBL16TE100R	No Lugs
	FBV16TE100R2	FBN16TE100R2	FBH16TE100R2	FBL16TE100R2	Load Lugs Only
	FBV16TE100RV	FBN16TE100RV	FBH16TE100RV	FBL16TE100RV	Load Lugs and Panel Connections

## Record Plus™ FB 100

### 2-Pole Record Plus™ FB 100 Breakers IC @ 600/347 Vac

Rated Current (A)	35kA Product No.	65kA Product No.	100kA Product No.	150kA Product No.	Connection
15	FBV26TE015R	FBN26TE015R	FBH26TE015R	FBL26TE015R	No Lugs
	FBV26TE015R2	FBN26TE015R2	FBH26TE015R2	FBL26TE015R2	Load Lugs Only
	FBV26TE015RV	FBN26TE015RV	FBH26TE015RV	FBL26TE015RV	Load Lugs and Panel Connections
20	FBV26TE020R	FBN26TE020R	FBH26TE020R	FBL26TE020R	No Lugs
	FBV26TE020R2	FBN26TE020R2	FBH26TE020R2	FBL26TE020R2	Load Lugs Only
	FBV26TE020RV	FBN26TE020RV	FBH26TE020RV	FBL26TE020RV	Load Lugs and Panel Connections
25	FBV26TE025R	FBN26TE025R	FBH26TE025R	FBL26TE025R	No Lugs
	FBV26TE025R2	FBN26TE025R2	FBH26TE025R2	FBL26TE025R2	Load Lugs Only
	FBV26TE025RV	FBN26TE025RV	FBH26TE025RV	FBL26TE025RV	Load Lugs and Panel Connections
30	FBV26TE030R	FBN26TE030R	FBH26TE030R	FBL26TE030R	No Lugs
	FBV26TE030R2	FBN26TE030R2	FBH26TE030R2	FBL26TE030R2	Load Lugs Only
	FBV26TE030RV	FBN26TE030RV	FBH26TE030RV	FBL26TE030RV	Load Lugs and Panel Connections
35	FBV26TE035R	FBN26TE035R	FBH26TE035R	FBL26TE035R	No Lugs
	FBV26TE035R2	FBN26TE035R2	FBH26TE035R2	FBL26TE035R2	Load Lugs Only
	FBV26TE035RV	FBN26TE035RV	FBH26TE035RV	FBL26TE035RV	Load Lugs and Panel Connections
40	FBV26TE040R	FBN26TE040R	FBH26TE040R	FBL26TE040R	No Lugs
	FBV26TE040R2	FBN26TE040R2	FBH26TE040R2	FBL26TE040R2	Load Lugs Only
	FBV26TE040RV	FBN26TE040RV	FBH26TE040RV	FBL26TE040RV	Load Lugs and Panel Connections
45	FBV26TE045R	FBN26TE045R	FBH26TE045R	FBL26TE045R	No Lugs
	FBV26TE045R2	FBN26TE045R2	FBH26TE045R2	FBL26TE045R2	Load Lugs Only
	FBV26TE045RV	FBN26TE045RV	FBH26TE045RV	FBL26TE045RV	Load Lugs and Panel Connections
50	FBV26TE050R	FBN26TE050R	FBH26TE050R	FBL26TE050R	No Lugs
	FBV26TE050R2	FBN26TE050R2	FBH26TE050R2	FBL26TE050R2	Load Lugs Only
	FBV26TE050RV	FBN26TE050RV	FBH26TE050RV	FBL26TE050RV	Load Lugs and Panel Connections
60	FBV26TE060R	FBN26TE060R	FBH26TE060R	FBL26TE060R	No Lugs
	FBV26TE060R2	FBN26TE060R2	FBH26TE060R2	FBL26TE060R2	Load Lugs Only
	FBV26TE060RV	FBN26TE060RV	FBH26TE060RV	FBL26TE060RV	Load Lugs and Panel Connections
70	FBV26TE070R	FBN26TE070R	FBH26TE070R	FBL26TE070R	No Lugs
	FBV26TE070R2	FBN26TE070R2	FBH26TE070R2	FBL26TE070R2	Load Lugs Only
	FBV26TE070RV	FBN26TE070RV	FBH26TE070RV	FBL26TE070RV	Load Lugs and Panel Connections
80	FBV26TE080R	FBN26TE080R	FBH26TE080R	FBL26TE080R	No Lugs
	FBV26TE080R2	FBN26TE080R2	FBH26TE080R2	FBL26TE080R2	Load Lugs Only
	FBV26TE080RV	FBN26TE080RV	FBH26TE080RV	FBL26TE080RV	Load Lugs and Panel Connections
90	FBV26TE090R	FBN26TE090R	FBH26TE090R	FBL26TE090R	No Lugs
	FBV26TE090R2	FBN26TE090R2	FBH26TE090R2	FBL26TE090R2	Load Lugs Only
	FBV26TE090RV	FBN26TE090RV	FBH26TE090RV	FBL26TE090RV	Load Lugs and Panel Connections
100	FBV26TE100R	FBN26TE100R	FBH26TE100R	FBL26TE100R	No Lugs
	FBV26TE100R2	FBN26TE100R2	FBH26TE100R2	FBL26TE100R2	Load Lugs Only
	FBV26TE100RV	FBN26TE100RV	FBH26TE100RV	FBL26TE100RV	Load Lugs and Panel Connections

## Record Plus™ FB 100

### 3-Pole Record Plus™ FB 100 Breakers IC @ 600/347 Vac

Rated Current (A)	35kA Product No.	65kA Product No.	100kA Product No.	150kA Product No.	Connection
15	FBV36TE015R	FBN36TE015R	FBH36TE015R	FBL36TE015R	No Lugs
	FBV36TE015R2	FBN36TE015R2	FBH36TE015R2	FBL36TE015R2	Load Lugs Only
	FBV36TE015RV	FBN36TE015RV	FBH36TE015RV	FBL36TE015RV	Load Lugs and Panel Connections
20	FBV36TE020R	FBN36TE020R	FBH36TE020R	FBL36TE020R	No Lugs
	FBV36TE020R2	FBN36TE020R2	FBH36TE020R2	FBL36TE020R2	Load Lugs Only
	FBV36TE020RV	FBN36TE020RV	FBH36TE020RV	FBL36TE020RV	Load Lugs and Panel Connections
25	FBV36TE025R	FBN36TE025R	FBH36TE025R	FBL36TE025R	No Lugs
	FBV36TE025R2	FBN36TE025R2	FBH36TE025R2	FBL36TE025R2	Load Lugs Only
	FBV36TE025RV	FBN36TE025RV	FBH36TE025RV	FBL36TE025RV	Load Lugs and Panel Connections
30	FBV36TE030R	FBN36TE030R	FBH36TE030R	FBL36TE030R	No Lugs
	FBV36TE030R2	FBN36TE030R2	FBH36TE030R2	FBL36TE030R2	Load Lugs Only
	FBV36TE030RV	FBN36TE030RV	FBH36TE030RV	FBL36TE030RV	Load Lugs and Panel Connections
35	FBV36TE035R	FBN36TE035R	FBH36TE035R	FBL36TE035R	No Lugs
	FBV36TE035R2	FBN36TE035R2	FBH36TE035R2	FBL36TE035R2	Load Lugs Only
	FBV36TE035RV	FBN36TE035RV	FBH36TE035RV	FBL36TE035RV	Load Lugs and Panel Connections
40	FBV36TE040R	FBN36TE040R	FBH36TE040R	FBL36TE040R	No Lugs
	FBV36TE040R2	FBN36TE040R2	FBH36TE040R2	FBL36TE040R2	Load Lugs Only
	FBV36TE040RV	FBN36TE040RV	FBH36TE040RV	FBL36TE040RV	Load Lugs and Panel Connections
45	FBV36TE045R	FBN36TE045R	FBH36TE045R	FBL36TE045R	No Lugs
	FBV36TE045R2	FBN36TE045R2	FBH36TE045R2	FBL36TE045R2	Load Lugs Only
	FBV36TE045RV	FBN36TE045RV	FBH36TE045RV	FBL36TE045RV	Load Lugs and Panel Connections
50	FBV36TE050R	FBN36TE050R	FBH36TE050R	FBL36TE050R	No Lugs
	FBV36TE050R2	FBN36TE050R2	FBH36TE050R2	FBL36TE050R2	Load Lugs Only
	FBV36TE050RV	FBN36TE050RV	FBH36TE050RV	FBL36TE050RV	Load Lugs and Panel Connections
60	FBV36TE060R	FBN36TE060R	FBH36TE060R	FBL36TE060R	No Lugs
	FBV36TE060R2	FBN36TE060R2	FBH36TE060R2	FBL36TE060R2	Load Lugs Only
	FBV36TE060RV	FBN36TE060RV	FBH36TE060RV	FBL36TE060RV	Load Lugs and Panel Connections
70	FBV36TE070R	FBN36TE070R	FBH36TE070R	FBL36TE070R	No Lugs
	FBV36TE070R2	FBN36TE070R2	FBH36TE070R2	FBL36TE070R2	Load Lugs Only
	FBV36TE070RV	FBN36TE070RV	FBH36TE070RV	FBL36TE070RV	Load Lugs and Panel Connections
80	FBV36TE080R	FBN36TE080R	FBH36TE080R	FBL36TE080R	No Lugs
	FBV36TE080R2	FBN36TE080R2	FBH36TE080R2	FBL36TE080R2	Load Lugs Only
	FBV36TE080RV	FBN36TE080RV	FBH36TE080RV	FBL36TE080RV	Load Lugs and Panel Connections
90	FBV36TE090R	FBN36TE090R	FBH36TE090R	FBL36TE090R	No Lugs
	FBV36TE090R2	FBN36TE090R2	FBH36TE090R2	FBL36TE090R2	Load Lugs Only
	FBV36TE090RV	FBN36TE090RV	FBH36TE090RV	FBL36TE090RV	Load Lugs and Panel Connections
100	FBV36TE100R	FBN36TE100R	FBH36TE100R	FBL36TE100R	No Lugs
	FBV36TE100R2	FBN36TE100R2	FBH36TE100R2	FBL36TE100R2	Load Lugs Only
	FBV36TE100RV	FBN36TE100RV	FBH36TE100RV	FBL36TE100RV	Load Lugs and Panel Connections

## Record Plus™ FB 100 Internal Accessories

### Releases – Shunt Trip and Undervoltage

Voltage	Shunt Trip	Undervoltage Release
	Product No.	Product No.
12 VDC	FASHTBW	–
24 VAC/DC	FASHTDW	FAUVRDW
48 VAC/DC	FASHTFW	FAUVRFW
110-130 VAC/110-125 VDC	FASHTJW	FAUVRJW
120 VAC	FASHTKW	–
220/240 VAC, 250 VDC	FASHTNW	FAUVRNW
277 VAC	FASHT7W	FAUVR7W
400/480 VAC	FASHTUW	FAUVRUW

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads (#18 AWG). Shunt trip wire leads are black and UVR wire leads are blue.

### Bell Alarm

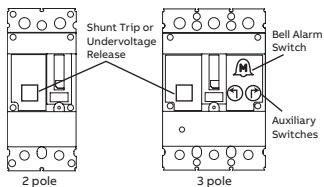
Contact Configuration	Contacts	Contact Rating	Wire leads	Product No.
1 NO (Form A)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FABAM10W
1 NC (Form B)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FABAM01W

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads. Reference instruction sheet DEH-40324 for wire lead colors.

### Auxiliary Switches

Contact Configuration	Contacts	Contact Rating	Wire leads	Left Mount	Right Mount
				Product No.	Product No.
1 NO (Form A)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FAS10LW	FAS10RW
1 NC (Form B)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FAS01LW	FAS01RW

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads. Reference instruction sheet DEH-40324 for wire lead colors.



Mounting Locations

### Mounting Locations and Limitations

Accessory	Mounting Pocket Location	Accessory Installation		
		1 Pole	2 Pole	3 Pole
Shunt Trip or Undervoltage Release	□	0	1	1
Aux. Switch - Left Mount	⊖	0	0	1
Aux. Switch - Right Mount	⊕	0	0	1
Bell Alarm	Ⓜ	0	0	1
Maximum Number of Internal Accessories That Can Be Installed	–	0	1	4

# Record Plus™ FB 100

## External Accessories

### Padlocking Devices

Description	Product No.
Padlock Fixed Toggle	FB1PF
Padlock EUSERC Toggle	FB1PE

### Lugs and Lug Kits

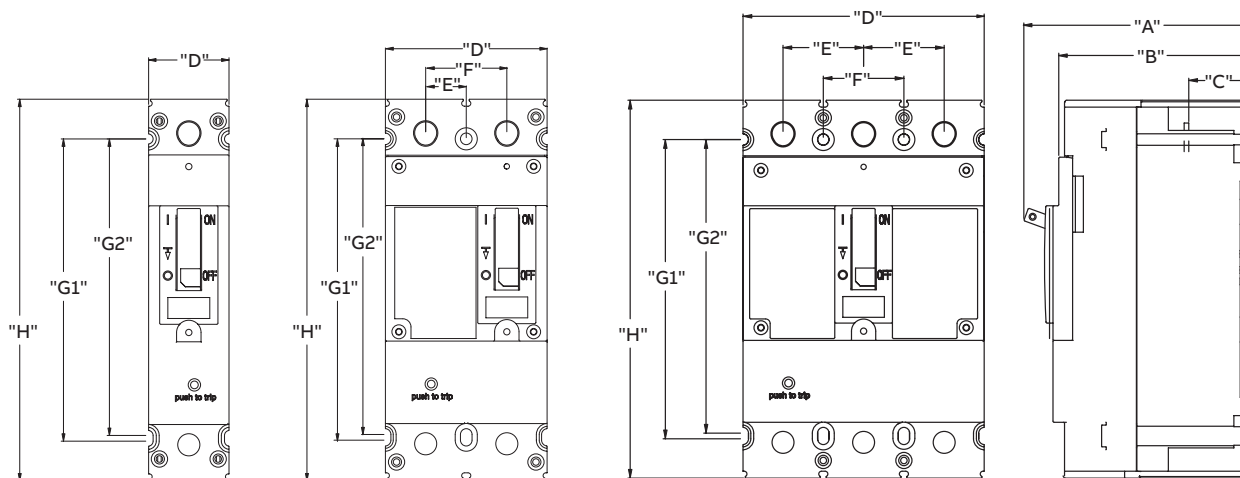
Amp Range	Wire Range	Strip Length	Single Lug Product No.	Lug Kit Product No. (Set of 3)
15-20A	14-10 Cu/Al	.40-.50"	FCAL12	FCALK12
25-60A	10-4 Cu/Al	.40-.50"	FCAL13	FCALK13
70-100A	4-1/0 Cu/Al	.40-.50"	FCAL14	FCALK14

### Lug Tightening Torque

Wire Size	Torque
#10 AWG	35 in-lb
#8 AWG	40 in-lb
#6-#4 AWG	45 in-lb
#3 AWG - 1/0	50 in-lb

### FB 100 Dimensions in.(mm)

Poles	A	B	C	D	E	F	G1	G2	H
1	3.88 (98.6)	3.28 (83.3)	1.06 (26.9)	1.36 (34.5)	N/A	N/A	5.11 (129.8)	5.01 (127.3)	6.45 (163.8)
2	3.88 (98.6)	3.28 (83.3)	1.06 (26.9)	2.74 (69.6)	0.69 (17.5)	1.38 (35.1)	5.11 (129.8)	5.01 (127.3)	6.45 (163.8)
3	3.88 (98.6)	3.28 (83.3)	1.06 (26.9)	4.11 (104.4)	1.38 (35.1)	1.38 (35.1)	5.11 (129.8)	5.01 (127.3)	6.45 (163.8)



## Record Plus™ FG 600

### Features

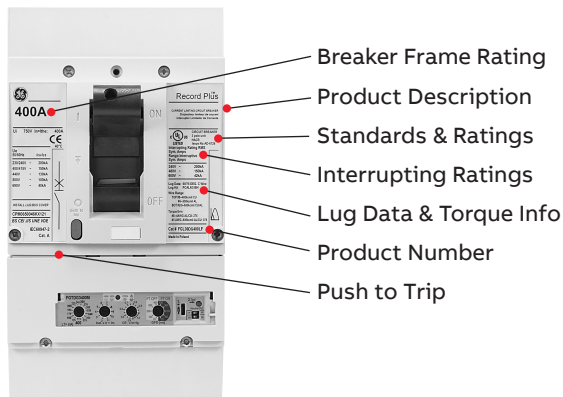
Record Plus™ FG Molded Case Circuit Breakers are available with either PremEon S or advanced (SMR2) trip units. FG600 breakers and MCPs equipped with the PremEon trip unit do not use rating plugs to determine Amp rating. The trip unit features an adjustment knob to set the Amp rating (Long-Time Pickup). The knob is located behind a sealable cover and requires a tamper-resistant Torx T15 tool. The tool is available through many industrial supply companies. The maximum Amp rating of the breaker frame and the available Amp rating settings (Long- Time Pickup values) by sensor, are shown on page 6-201. FG600 breakers equipped with SMR2 trip units require rating plugs to determine the breaker's current rating, but also allow individual adjustment of Long-Time delay, Short-Time pickup and Delay, and Ground Fault Pickup and Delay (if so equipped). Zone Selective Interlocking (ZSI), Ground Fault Alarm, and Modbus Communications are also available via the SMR2's interface.

### PremEon S Standard

- Adjustable INST Pickup
- Adjustable LT Pickup<sup>1</sup>

### Optional

- Adjustable GF Pickup and Delay



### Main Standards

- UL489/cUL489
- IEC 947 and associated EN Sections

### Other Global Standards

BS, CE, CEI, JIS, UNE, VDE

### FB Breaker Markings

cULus	UL File E-11592
HACR	250 to 600A
Cu/Al 60/75°C	250 to 600A
Current Limiting	250 to 600A

<sup>1</sup>Available via adjustment with special Torx T15 tool

<sup>2</sup>Available via Adjustable Rating Plug

<sup>3</sup>Must be ordered on the breaker frame

### SMR2

#### Standard

- Fixed LT Pickup, set by Rating Plug Characteristic
- Adjustable LT Delay
- Adjustable ST Pickup and Delay
- Adjustable INST Pickup

#### Optional

- Adjustable LT Pickup<sup>2</sup>
- Zone Selective Interlocking Capability<sup>3</sup>
- Adjustable GF (Alarm or Trip) Pickup and Delay
- Trip Unit Flag for Trip Reason Indication
- Ammeter
- Load Shedding Contact
- Communications via Modbus

Standard features of SMR2 trip units are supplied installed on the breaker frame. Zone Selective Interlocking must be ordered on the breaker frame, and cannot be user-defeated. Adjustable Long-Time pickup functionality is achieved through the use of adjustable rating plugs, which must be ordered separately from the breaker frame, and sized to match the CT/Sensor rating of the frame.

Optional features of the SMR2 (except ZSI) are available via userinstalled expansion modules, which, like rating plugs, must be ordered separately.

### Reference Publications

Available for download from [electrification.us.abb.com/publibrary](http://electrification.us.abb.com/publibrary)

FG Breaker	
Installation Instructions	DEH-41639
FG Breaker Accessories	
Bell Alarm & Aux. Switch	DEH-40324
Shunt Trip & UVR	DEH-40259
Padlock Device	DEH-41031
Lug Kits	DEH-40404
Auxiliary Contacts	DEH-40261
Trip Unit Test Kit (FAT)	DEH-40358
SMR2 Expansion Modules	DEH-40408
SMR2 Modbus User Manual	DEH-41181
SMR2 External Contact Module	DEH-40409
Panelboards	
Spectra™ Power Panel - Plug-in Kits - Single	DEH-40420
Spectra™ Power Panel - Plug-in Kits - Double	DEH-40419
Spectra™ Power Panel - Bolt-on Kits - Single	DEH-40426
Spectra™ Power Panel - Bolt-on Kits - Double	DEH-41047
Series Ratings	DET-008
Outline Drawing	10085108SHI

### Trip Curves

Peak Current Curve	DES-040
Peak I <sup>2</sup> t Curve	DES-041
Record Plus FG with PremEon Trip - LSI Protections	DES-118
Record Plus FG with PremEon Trip - GF Protection	DES-119
Record Plus FG with PremEon Trip - Mag-only	
Motor Circuit Protector	DES-120
SMR2 Trip Unit	
Phase Protection	DES-201
Ground Fault Protection and Alarm	DES-202

### Cross Reference

SMR1 Equipped FG MCCB	Rating Plug Amps	PremEon Equipped MCCB
FG(N/H/L/P)(2/3)6AA0250R_	100, 110, 125, 150, 175, 200, 225, 250	FG(N/H/L/P)(2/3)6DB250LF
FG(N/H/L/P)(2/3)6AA0400R_	175, 200, 225, 250, 300, 350, 400	FG(N/H/L/P)(2/3)6DB400LF
FG(N/H/L/P)(2/3)6AA0600R_	300, 350, 400, 450, 500, 600	FG(N/H/L/P)(2/3)6DB600MF



# Record Plus™ FG 600

## Interrupting Ratings

Type	Ampere Rating	Max AC Voltage	No. Poles	UL Listed Interrupting Ratings - rms Symmetrical Amperes (in Thousands) AC Voltage			EN 60947-2 Interrupting Ratings - rms Symmetrical Amperes (in Thousands)		
				240	480	600	240	400-415	690
FGN	250-600A	600VAC	2	150	65	25	-	-	-
			3	150	65	25	85	50	10
FGH	250-600A	600VAC	2	200	100	35	-	-	-
			3	200	100	35	100	80	22
FGL <sup>1</sup>	250-600A	600VAC	2	200	150	42	-	-	-
			3	200	150	42	200	150	40
FGP <sup>1</sup>	250-600A	600VAC	2	200	200	65	-	-	-
			3	200	200	65	-	-	-

<sup>1</sup>Not suitable for reverse feed.

## Product Number Structure

	F	G	N	3	6	D	B	250L	F	
<b>Family</b> F = Record Plus										<b>Connection Configuration</b> RO = Standard No Lugs R1 = Line and Load Lugs <sup>3</sup> R2 = Load Lugs <sup>3</sup> R3 = Line Lugs <sup>3</sup> F = PremEon Standard No Lugs
<b>Frame Size</b> G = 600A										
<b>Interruption Rating (@480VAC)</b> N = 65kA H = 100kA										
		L = 150kA								
<b>Poles</b> 2 = 2-Pole in 3-Pole Frame										<b>Trip Unit/Frame Amps</b> 0250 = 250A SMR2      250L = 250A PremEon 0400 = 400A SMR2      400L = 400A PremEon 0600 = 600A SMR2      600M = 600A PremEon
		P = 200kA								
<b>Voltage Rating</b> 6 = 600Vac										
<b>Trip Unit Type</b> D = PremEon S <sup>2</sup>										
										<b>Trip Unit Protection</b> A = SMR2 standard      M = Mag-Only MCP Z = SMR2 with ZSI      P = Mag-Only MCP w/Ground Fault B = LI G = LIg w/Ground Fault

<sup>2</sup>Requires tamper-resistant Torx T15 tool for adjustment  
<sup>3</sup>Lugs included but not installed

## PremEon S

FG Breakers and MCP's equipped with the PremEon S trip unit use an adjustment knob to set the Amp rating (LT Pickup). The maximum Amp rating of the breaker frame is shown in the "Current Sensor" column below. The available Amp rating settings (LT Pickup values), by sensor, are as follows:

Current Sensor (A)	Amp Settings (LT Pickup)
250	80, 90, 100, 110, 125, 135, 150, 165, 175, 190, 200, 215, 225, 240, 250
400	125, 150, 175, 180, 200, 225, 240, 250, 275, 300, 325, 340, 350, 375, 400
600	175, 200, 225, 250, 300, 325, 350, 400, 425, 450, 475, 500, 550, 575, 600

## LI Trip Unit (With Tracking Short-Time)

2-Pole Record Plus FG Breakers				
Current Sensor (A)	65kAIC @480 Vac	100kAIC @480 Vac	150kAIC @480 Vac	200kAIC @480 Vac
	Product Number	Product Number	Product Number	Product Number
250	FGN26DB250LF	FGH26DB250LF	FGL26DB250LF	FGP26DB250LF
400	FGN26DB400LF	FGH26DB400LF	FGL26DB400LF	FGP26DB400LF
600	FGN26DB600MF	FGH26DB600MF	FGL26DB600MF	FGP26DB600MF
3-Pole Record Plus FG Breakers				
250	FGN36DB250LF	FGH36DB250LF	FGL36DB250LF	FGP36DB250LF
400	FGN36DB400LF	FGH36DB400LF	FGL36DB400LF	FGP36DB400LF
600	FGN36DB600MF	FGH36DB600MF	FGL36DB600MF	FGP36DB600MF

## LIG Trip Unit (With Tracking Short-Time)

2-Pole Record Plus FG Breakers				
Current Sensor (A)	65kAIC @480 Vac	100kAIC @480 Vac	150kAIC @480 Vac	200kAIC @480 Vac
	Product Number	Product Number	Product Number	Product Number
250	FGN26DG250LF	FGH26DG250LF	FGL26DG250LF	FGP26DG250LF
400	FGN26DG400LF	FGH26DG400LF	FGL26DG400LF	FGP26DG400LF
600	FGN26DG600MF	FGH26DG600MF	FGL26DG600MF	FGP26DG600MF
3-Pole Record Plus FG Breakers				
250	FGN36DG250LF	FGH36DG250LF	FGL36DG250LF	FGP36DG250LF
400	FGN36DG400LF	FGH36DG400LF	FGL36DG400LF	FGP36DG400LF
600	FGN36DG600MF	FGH36DG600MF	FGL36DG600MF	FGP36DG600MF

## Record Plus™ FG 600

### Internal Accessories

#### Releases – Shunt Trip and Undervoltage

Voltage	Shunt Trip	Undervoltage Release
	Product No.	Product No.
12 VDC	FASHTBW	—
24 VAC/DC	FASHTDW	FAUVRDW
48 VAC/DC	FASHTFW	FAUVRFW
110-130 VAC/110-125 VDC	FASHTJW	FAUVRJW
120 VAC <sup>3</sup>	FASHTKW	—
220/240 VAC, 250 VDC	FASHTNW	FAUVRNW
277 VAC	FASHT7W	FAUVR7W
400/480 VAC	FASHTUW	FAUVRUW

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads (#18 AWG). Shunt trip wire leads are black and UVR wire leads are blue. 355% pickup as required for use with External Ground Fault Protection.

#### Bell Alarm

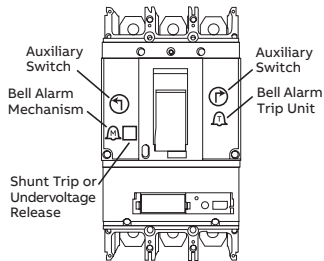
Contact Configuration	Contacts	Contact Rating	Wire leads	Mechanisms	Trip Units
				Product No.	Product No.
1 NO (Form A)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FABAM10W	FABAT10W
1 NC (Form B)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FABAM01W	FABAT01W

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads. Reference instruction sheet DEH-40324 for wire lead colors.

#### Auxiliary Switches

Contact Configuration	Contacts	Contact Rating	Wire leads	Left Mount	Right Mount
				Product No.	Product No.
1 NO (Form A)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FAS10LW	FAS10RW
1 NC (Form B)	Standard	5A @ 277 VAC, 0.3A @ 125 VDC	#16 AWG	FAS01LW	FAS01RW

UL Listed for field installation. Accessories are prewired from the factory with 36 inch long leads. Reference instruction sheet DEH-40324 for wire lead colors.



Mounting Locations

#### Mounting Locations and Limitations

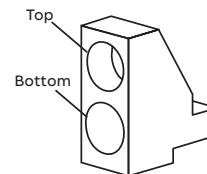
Accessory	Mounting Pocket Location	Maximum Quantity
Shunt Trip or Undervoltage Release		1
Aux. Switch - Left Mount		3
Aux. Switch - Right Mount		2
Bell Alarm Mechanism		1
Bell Alarm Trip Unit		1

# Record Plus™ FG 600

## External Accessories

### Padlocking Devices

Description	Product No.
Padlocking EUSERC Toggle	FG1PE



FCALK218H/FCALK318H

### Lug Kits

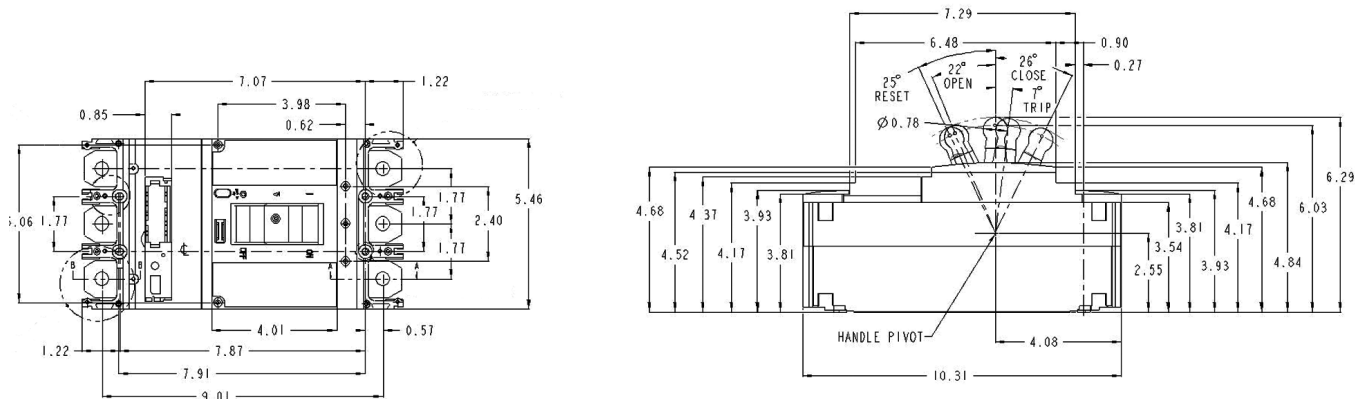
Pole/Lugs Location	Wire Type	Torque		Strip Length		Product No.	
		Wire-Lug	Lug-Strap	Top	Bottom		
2	Top	#8-400kcmil Cu, #6-500kcmil Al	#8-#4 AWG Cu/Al 275 lb-in (31 N-m)	200 lb-in (23 N-m)	7/8"	1 5/8"	FCALK218H
	Bottom	#2/0-600kcmil Cu/Al	#3 AWG-600kcmil Cu/Al 375 lb-in (42 N-m)	200 lb-in (23 N-m)			
3	Top	#8-400kcmil Cu, #6-500kcmil Al	#8-#4 AWG Cu/Al 275 lb-in (31 N-m)	200 lb-in (23 N-m)	7/8"	1 5/8"	FCALK318H
	Bottom	#2/0-600kcmil Cu/Al	#3 AWG-600kcmil Cu/Al 375 lb-in (42 N-m)	200 lb-in (23 N-m)			

### Other Accessories

	Product No.
Rating Plug Removal Tool (SMR1 and SMR2 only)	FAR
Breaker External Test Kit (SMR1 and SMR2 only)	FAT
Lug Cover Kit	FGH1LCK
Hardware Kit (Tapped Holes)	FGMSK1
Hardware Kit (Through Holes)	FGMSK2
Terminal Shield Fin Cover	FGJS3
Nut Plate / Terminal Shoe	FGJN3

### Dimensions (in.)

#### FG 600 Dimensions



## Molded Case Switches

100-1200A

### Molded Case Switches Spectra™ RMS

UL/cUL File E-57546, Includes fixed, high-set Instantaneous trip suitable for reverse feed.

Frame Type	Ampere Rating	Switch <sup>1</sup>	Terminal Lugs for Front Connection (Cu/Al)		Maximum Short Circuit Withstand Rating <sup>2</sup> (kA rms symmetrical)		
		Product Number	Product Number	Wire Range	240 Vac	480 Vac	600 Vac
SE150	100	SEDA36AN0100	TCAL18	Aluminum: #12-3/0 Copper: #14-3/0	200	100	25
	150	SEDA36AN0150					
SF250	250	SFDA36AN0250	TCAL29	Aluminum: #8-350 kcmil Copper: #8-350 kcmil	200	100	25
SG600	400	SGDA36AN0400	3-pole lug kit TCLK3653	Aluminum: (2) 2/0-500 kcmil or (1) #8-600 kcmil Copper: (2) 2/0-500 kcmil or (1) #8-600 kcmil	200	100	65
	600	SGDA36AN0600					
SK1200	800	SKDA36AN0800	TCAL81	Aluminum: (3) 3/0-500 kcmil Copper: (3) 3/0-500 kcmil	100	65	42
	1000	SKDA36AN1000	TCAL125	Aluminum: (4) 250-500 kcmil Copper: (4) 250-500 kcmil			
	1200	SKDA36AN1200					

### Molded Case Switches Nonautomatic Trip, Includes Cu/Al line and load lugs. For optional lugs, see page 6-217 and 6-218.

Type	Ampere Rating	Number of Poles	Voltage Rating	Product Number
TEB	100	1	120 Vac, 125 Vdc	TEB111Y100 <sup>4</sup>
TEB	100	2	240 Vac, 250 Vdc	TEB122Y100 <sup>4</sup>
TEB	100	3	240 Vac	TEB132Y100 <sup>4</sup>
TEB	100	3	240Vac	TEB132YT100 <sup>9</sup>
TED	100	1	277 Vac, 125 Vdc	TED113Y100 <sup>4</sup>
TED	100	2	480 Vac, 250 Vdc	TED124Y100 <sup>4</sup>
TED	100	3	480Vac, 250Vdc	TED134YT100 <sup>9</sup>
TED	100	3	600Vac	TED136YT100 <sup>9</sup>
TED	100	3	600Vac	TED136YT100A <sup>10</sup>
TED	150	2	480 Vac, 250 Vdc	TED124Y150 <sup>4,5</sup>
TED	150	3	480Vac, 250Vdc	TED134YT150 <sup>9</sup>
TED	150	3	600Vac	TED136YT150 <sup>9</sup>
TFJ	225	2	600 Vac	TFJ226Y225 <sup>4,6,11</sup>
TFJ	225	3	600 Vac	TFJ236Y225 <sup>6,11</sup>
TJJ	400	2	600 Vac, 250 Vdc	TJJ426Y400 <sup>7</sup>
TJJ	400	3	600 Vac	TJJ436Y400 <sup>7</sup>
Type	Ampere Rating	Number of Poles	Voltage Rating	Product Number
TFK	225	2	600 Vac, 250 Vdc	TFK226Y225 <sup>6,7,8,11</sup>
TFK	225	3	600 Vac, 250 Vdc	TFK236Y225 <sup>7,8,11</sup>
TJK	400	2	600 Vac, 250 Vdc	TJK426Y400 <sup>7</sup>
TJK	400	3	600 Vac, 250 Vdc	TJK436Y400 <sup>7</sup>
TJK	600	2	600 Vac, 250 Vdc	TJK626Y600 <sup>7</sup>
TJK	600	3	600 Vac, 250 Vdc	TJK636Y600 <sup>7</sup>
TKM	800	2	600 Vac, 250 Vdc	TKMA826Y800 <sup>7,11</sup>
TKM	800	3	600 Vac, 250 Vdc	TKMA836Y800 <sup>7,11</sup>
TKM	1000	2	600 Vac, 250 Vdc	TKMA2Y1000 <sup>7,11</sup>
TKM	1000	3	600 Vac, 250 Vdc	TKMA3Y1000 <sup>7,11</sup>
TKM	1200	2	600 Vac, 250 Vdc	TKMA2Y1200 <sup>7,11</sup>
TKM	1200	3	600 Vac, 250 Vdc	TKMA3Y1200 <sup>7,11</sup>

<sup>1</sup>No rating plug required.<sup>2</sup>The maximum withstand rating is limited by the application to the value set forth in this table or the short circuit rating of the upstream fuse or circuit breaker, whichever is less. The upstream protective device must have an instantaneous trip function or element and its rated ampacity may not exceed the ampere rating of the switch.<sup>3</sup>Order one kit for either line or load end; two kits required for both.<sup>4</sup>Internal accessory requires factory installed dummy trip. Specify on order. Accessories not available for one-pole TEB, TED.<sup>5</sup>Not UL listed.<sup>6</sup>600 Volts max.<sup>7</sup>Internal accessory requires factory installed dummy trip unit. See page 6-73 for additional details. Nonautomatic trip unit and dummy trip not UL listed for field installation.<sup>8</sup>UL listed only when ordered as a complete switch.<sup>9</sup>Includes factory installed dummy trip for accessory installation.<sup>10</sup>Includes factory installed dummy trip and TCAL12A lugs.<sup>11</sup>Limited availability. Obsolete when inventory is depleted.

## Motor Circuit Protectors

3-250A

Mag-Break Motor Circuit Protectors

Current Limiting, UL Component Recognized<sup>1</sup>

### Features

- Suitable for Reverse Feed
- UL/cUL Recognized File E-11592
- IEC 947-2 690 Vac Max.
  - SE 150      160 Ampere Max.
  - SF250      250 Ampere Max.
  - SG600      630 Ampere Max.
  - SK1200     1250 Ampere Max.
- UL Current Limiting

### High Interrupting Capacity Spectra™ RMS Motor Circuit Protectors—SE150 Line 3-Pole

Rating Plug				Frame			Terminal Lugs for Front Connection (Cu/Al)	
Ampere Rating	Adjustable Instantaneous Trip Ampere Range		Product Number	Current Sensor	65kAIC @480 Vac	100kAIC @480 Vac	Product Number	Wire Range
	Low	High			Product Number	Product Number		
3	11	39	SRPE7A3	7	SELA36AI0007	SEPA36AI0007	TCAL18	14-3/0 Cu 12-3/0 Al
7	22	90	SRPE7A7					
15	43	182	SRPE30A15	30	SELA36AI0030	SEPA36AI0030	TCAL18	
20	58	254	SRPE30A20					
25	73	332	SRPE30A25					
30	87	415	SRPE30A30					
40	118	501	SRPE60A40	60	SELA36AI0060	SEPA36AI0060	TCAL18	
50	148	637	SRPE60A50					
60	178	777	SRPE60A60					
70	206	863	SRPE100A70	100	SELA36AI0100	SEPA36AI0100	TCAL18	
80	236	999	SRPE100A80					
90	267	1138	SRPE100A90					
100	297	1280	SRPE100A100					
110	328	1426	SRPE150A110					
125	374	1640	SRPE150A125	150	SELA36AI0150	SEPA36AI0150	TCAL18	
150	450	1991	SRPE150A150					

### SE150 Add-on 3-Pole Limiters

Maximum Ampere Rating	Product Number	kAIC @600 Vac	Use With Breaker/MCP Frame
150	SAXSEL36150	65	SEL
150	SAXSEP36150	100	SEP

### High Interrupting Capacity Motor Circuit Protectors—SF250 Line 3-Pole

Rating Plug				Frame			Terminal Lugs for Front Connection (Cu/Al)	
Ampere Rating	Adjustable Instantaneous Trip Ampere Range		Product Number	Current Sensor	65kAIC @480 Vac	100kAIC @480 Vac	Product Number	Wire Range
	Low	High			Product Number	Product Number		
70	205	700	SRPF250A70	250	SFLA36AI0250	SFPA36AI0250	TCAL29	8-350 Cu 8-350 Al
90	265	900	SRPF250A90					
100	295	1000	SRPF250A100					
110	325	1100	SRPF250A110					
125	370	1250	SRPF250A125					
150	440	1500	SRPF250A150					
175	515	1750	SRPF250A175					
200	590	2000	SRPF250A200					
225	665	2250	SRPF250A225					
250	736	2500	SRPF250A250					

<sup>1</sup>Per UL 489, interruption ratings are not printed on the product label (interruption ratings are established based on a tested combination of the motor circuit protector and a properly sized overload relay and contactor).

## Motor Circuit Protectors

125-1200A

Mag-Break Motor Circuit Protectors

Current Limiting, UL Component Recognized<sup>1</sup>

### SG 600 Line 3-Pole

Rating Plug			Frame			Terminal Lugs for Front Connection (Cu/Al)		
Ampere Rating	Adjustable Instantaneous Trip Ampere Range		Product Number	Current Sensor	65kAIC @480 Vac	100kAIC @480 Vac	Product Number	Wire Range
	Low	High			Product Number	Product Number		
<b>400 Ampere Max.</b>								
125	380	1275	SRPG400A125	400	SGLA36AI0400	SGPA36AI0400	3-Pole lug kit	(2) 2/0-500 Cu or (1) 8-600 Cu
150	455	1530	SRPG400A150					
175	530	1785	SRPG400A175					
200	605	2040	SRPG400A200					
225	680	2295	SRPG400A225				TCLK365 <sup>2</sup>	(2) 2/0-500 Al or (1) 8-600 Al
250	755	2550	SRPG400A250					
300	905	3060	SRPG400A300					
350	1060	3570	SRPG400A350					
400	1210	4080	SRPG400A400					
<b>600 Ampere Max.</b>								
250	765	2530	SRPG600A250	600	SGLA36AI0600	SGPA36AI0600	3-Pole lug kit	(2) 2/0-500 Cu or (1) 8-600 Cu
300	915	3035	SRPG600A300					
350	1070	3545	SRPG600A350					
400	1220	4050	SRPG600A400					
450	1375	4555	SRPG600A450				TCLK365 <sup>2</sup>	(2) 2/0-500 Al or (1) 8-600 Al
500	1525	5060	SRPG600A500					
600	1830	6075	SRPG600A600					

<sup>1</sup>Per UL 489, interruption ratings are not printed on the product label (interruption ratings are established based on a tested combination of the motor circuit protector and a properly sized overload relay and contactor).

<sup>2</sup>Order one kit for either the line or load end; two kits required for both.

### SK1200 Line (Not Current Limiting) 3-Pole

Rating Plug			Frame			Terminal Lugs for Front Connection (Cu/Al)	
Ampere Rating	Adjustable Instantaneous Trip Ampere Range		Product Number	Current Sensor	65kAIC @480 Vac	Product Number	Wire Range
	Low	High			Product Number		
<b>800 Ampere Max.</b>							
300	940	3015	SRPK800A300	800	SKLA36AI0800	TCAL81	(3) 3/0-500 Cu (3) 3/0-500 Al
400	1250	4015	SRPK800A400				
500	1570	5020	SRPK800A500				
600	1875	6195	SRPK800A600				
700	2155	7420	SRPK800A700				
800	2440	8705	SRPK800A800				
<b>1200 Ampere Max.</b>							
600	1825	6110	SRPK1200A600	1200	SKLA36AI1200	TCAL125	(4) 250-500 Cu (4) 250-500 Al
700	2125	7125	SRPK1200A700				
800	2430	8145	SRPK1200A800				
1000	3040	10180	SRPK1200A1000				
1200	3650	12215	SRPK1200A1200				

Accessories: See pages 6-69 to 6-73, 6-192 to 6-193, and 6-207 to 6-219.

### Standard Capacity Mag Break Motor Circuit Protectors—Type TJC 3-Pole

Ampere Rating	Adjustable Instantaneous Trip Ampere Range		30kAIC @480 Vac
	Low	High	Complete Breaker (includes line and load lugs) Product Number
400	330	1100	TJC36400E
	550	1670	TJC36400F
	1000	3300	TJC36400G
	1200	4000	TJC36400B
600	1000	3300	TJC36600G
	1800	6000	TJC36600H

## External Accessories

### Cable Operators

#### Spectra™ Flex Cable Operators

- UL Listed—File E-57253
- Reduced installation costs:
  - Simpler, faster installation
  - No special alignment required
- Optimized panel layout:
  - Breaker mounting position is independent of flange-mounted handle location
- Covers a full spectrum of enclosure types and sizes:
  - Flange-mounted handle for NEMA Types 1, 3R, 12 and 13 enclosures
  - Flange-mounted handle for NEMA 4/4X enclosures—optional
  - Broad range of enclosure sizes and breaker mounting configurations
  - 8 different operating cable lengths available from 3 to 10 feet
  - For circuit breaker types E150, SE150, SF250, SG600 and SK1200
  - Force and motion transmitted independently of breaker mounting plane or position relative to handle location
  - Common breaker mounted operator for SE150 and SF250 frames



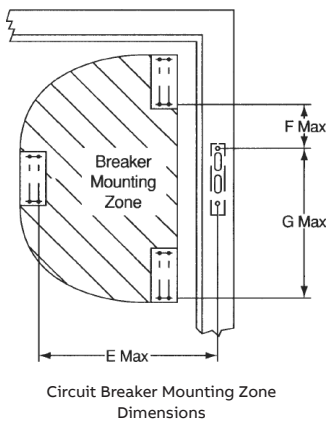
Spectra™ Flex cable operating mechanisms are suitable for application with ABB circuit breakers mounted in a wide variety of flanged enclosure types and sizes. Flange-mounted handle mechanisms are available for NEMA Types 1, 12 or 13 enclosures in either 6 inch (Model SCH1) or 10 inch (Model SCH2) handle lengths. Corresponding mechanisms, SCH1X and SCH2X, are available for NEMA Type 4/4X enclosures. Handle mechanisms are suitable for either left or right flange operation.

The handle mechanism is combined with one of eight operating cables, with lengths from 3 to 10 feet, to cover a broad range of possible breaker mounting locations in the enclosure. The cable links the handle mechanism to the breaker-mounted operating mechanism and transmits the mechanical force and motion of the handle mechanism to the breaker mounted mechanism. The force and motion is transmitted independently of the breaker mounting plane or location relative to the location of the handle mechanism, provided only that the bending radius of the cable is not less than 3 inches. No mounting reinforcement of the breaker or enclosure flange is required.

The breaker-operating mechanism mounts directly to the face of the breaker and does not involve any mounting interface with the enclosure. A standard breaker mounting screw kit for tapped holes is furnished with each mechanism to mount the breaker in the enclosure. See page 6-208 for ordering information.

## External Accessories

### Cable Operators



#### How to Order

Use the circuit breaker mounting zone dimension table to determine the correct cable length for the application and ensure that the 3-inch minimum bending radius is not violated. Select the breaker mounted mechanism, operating cable and handle mechanism below. Order as separate components.

#### Publication References

Breaker types E150, SE150, SF250, SG600	GEH-6290
Breaker type SK1200	GEH-6291

#### Maximum Dimensions in Inches

To determine the maximum mounting dimensions for 60-through 120-inch-long operating cables, add the respective additional lengths to the 48-inch cable maximum dimensions. (Example: Add 12 inches to E, F and G dimensions for 60-inch cable length.) When cable is installed, the minimum cable bend radius should not be less than 3 inches. The minimum cable bending requirement must be met to ensure a safe operating environment.

#### Maximum Mounting Dimensions (in.)

Box Depth	36" Cable			48" Cable		
	E <sup>1</sup>	F	G	E <sup>1</sup>	F	G
8"	13.5	4.0	15.0	25.5	16.0	27.0
10"	13.0	5.0	14.8	25.0	17.0	26.8
12"	12.8	6.0	14.5	24.8	17.0	26.5
16"	10.5	4.5	14.2	22.5	16.5	26.2
18"	8.5	3.5	12.6	20.5	15.5	24.6
20"	-	0.5	10.0	22.0	15.0	24.0
24"	-	-	-	19.5	14.0	22.0

<sup>1</sup>Maximum E Dimension only if F = 4.5"

#### Operating Cables

Cable Length	Circuit Breaker Type	
	E150, SE150, SF250, SG600 Product Number	SK1200 Product Number
3'	SC3L	SC3H
4'	SC4L	SC4H
5'	SC5L	SC5H
6'	SC6L	SC6H
8'	SC8L	SC8H
10'	SC10L	SC10H

#### Breaker and Handle Mechanisms

Circuit Breaker Type	Breaker Mounted Mechanism Product Number	Flange-Mounted Handle Mechanism			
		NEMA Enclosure Type 1, 3R, 12, 13		NEMA Enclosure Type 4, 4X	
		6" Product Number	10" Product Number	6" Product Number	10" Product Number
E150	SCOM1A	SCH1	SCH2	SCH1X	SCH2X
SE150	SCOM1EF				
SF250	SCOM1EF				
SG600	SCOM1G				
SK1200	SCOM1K	-	SCH2K	-	SCH2KX



## External Accessories

### Flange-Mounted Operators

#### Type STDA Flange Handles and Variable Depth Operating Mechanisms

- Designed to meet automotive duty specifications
- NEMA 12/13 and 4/4X UL/cUL Component Recognized components, File E-57253
- For right or left hand flange mounting – field convertible
- Mounting dimensions to fit standard flange enclosures 8 inches
  - 24 inches deep
- Detailed installation instructions
- Superior strength

#### Flange Handle Construction

- Rugged die cast housing with provisions for locking in OFF position with up to three 3/16-inch to 5/16-inch padlocks
- O-ring seals for dirt-tight/oil-tight duty
- Gusseted, 3/32-inch thick double-sided steel handle with large, red-black self-extinguishing grade plastic grip.

#### Flange Handle Selection

Product Number STDA1 (6 inch) and STDA2 (10 inch) flange series handles are interchangeable. While the SE150 through SG600 operating mechanisms can be easily operated with the 6-inch STDA1 handle, the 10-inch STDA2 may be used to obtain lower operating force and/or to provide a proportionally larger handle on large enclosures. STDA3 and STDA3X can be used only with SDOM6 (for SK1200) operating mechanism.

NEMA 12/13 Flange Handle Product Number	NEMA 4/4X Flange Handle Product Number	Nominal Length Inches	Installation Instruction Number	Drilling Template Number
STDA1	STDA1X	6	GEH-5314	GEH-5314
STDA2	STDA2X	10		
STDA3	STDA3X	10		

#### Operating Mechanism Selection

Circuit Breaker Type	Flange Handle Product Number	Operating Mechanism Product Number
SE150	STDA1, 1X (6 inch) or STDA2, 2X (10-inch)	SDOM1A
SF250		SDOM3
SG600	STDA3, 3X	SDOM4
SK1200 <sup>1</sup>		SDOM6 <sup>1</sup>
TEB, TED, THED, TEC, TB1	STDA1, 1X (6 inch) or STDA2, 2X (10-inch)	SDOM1A
TB1 and TEC with TECL		SDOM1AP <sup>5</sup>
THLC1 (150A)		TDOM1D
J-Frames, TJC (400, 600A) <sup>2</sup>		TDOM4
TB4 (400A) TJH/TJL <sup>3</sup> (600A Max)		TDOM5
TB6 (600A), TB8 (800A) TKH/TKLD <sup>4</sup> (1200A Max)		TDOM7

<sup>1</sup>Requires STDA3 or STDA3X (10 inch, SK1200 only).

<sup>2</sup>Includes TJ/THJ/TJL.

<sup>3</sup>Use TDOM5 for TJH/TJL.

<sup>4</sup>Use TDOM7 for TKH/TKL.

<sup>5</sup>Adapter plate required to use SDOM1A on TB1 and TEC with TECL limiter.

#### Flange Stiffener Kit or Extended Length Drive Rod, Product Number TDSR

Provides rigid 3/8-inch diameter rod between STDA handle mounting surface (flange or center mullion) and operating mechanism when STDA handle would otherwise not be rigidly supported.

Rod length is 22 inches and may be cut to appropriate length. Also used as extended-length drive rod for SDOM1A and SDOM3 when standard 16 inch rod is not long enough. (Operating mechanism Product Number SDOM6 for SK1200 includes two 22" unique 3/8-16x22 inch flange stiffener rods, Product Number TDSR and drive rod.)

Operating Mechanism Product Number	Flange Stiffener Kit Product Number	Extended Drive Rod Product Number
SDOM1A, SDOM3, TDOM1A through TDOM3	TDSR	TDSR
SDOM4, TDOM4 through TDOM7	TDSR (16" supplied with operating mechanism)	TDSR1

#### Extended Drive Stud, Product Number TDS1, TDS2

This optional drive study permits locating the operating mechanism 1-5/16 inches farther to the left (When flange handle is on right side) or to the right (when handle is on the left side) to accommodate specific mounting restrictions. Not suitable for use with SDOM4, SDOM6, TDOM4 and TDOM5 operating mechanisms.

Operating Mechanism Product Number	Extended Drive Stud Product Number
SDOM1A, SDOM3, TDOM1A through TDOM3	TDS1
TDOM6, TDOM7	TDS2

#### Door Hardware NEMA 12/13 and 4/4X

Type TDV door hardware provides sealing and interlocking of 3/4-inch nominal door depth hinged on left or right. Interlocking design requires use of screwdriver to release. When used with an STDA flange handle and operating mechanisms, disconnect or circuit breaker cannot be turned on unless door and door hardware have been closed. For noninterlocking type, one bracket in kit is not used. Use of third point latch recommended for doors 40 inches or longer.

Description	Door Hinged on Left Product Number	Door Hinged on Right Product Number
NEMA 12/13 two point interlocking door hardware kit	TDV1	TDV1L
NEMA 4/4X two point interlocking door hardware kit	TDV1X	-
Third point latch kit for above	TDV3	TDV3L

## External Accessories

### Flange-Mounted Operators

#### Auxiliary Contact Kits

Available SPDT and DPDT and actuated by operating mechanism yoke.

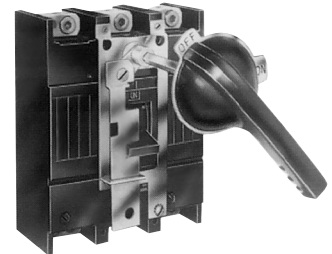
Used With Operating Mechanism Product Number	When STDA handle is on		Auxiliary Contact Kit	
	Right Flange	Left Flange	SPDT Product Number	DPDT Product Number
	SDOM1A, SDOM3 SDOM4 TDOM1A, JA TDOM1B, JB TDOM1C TDOM1D TDOM3	•		TDAS1L1
SDOM6 TDOM4 TDOM5 TDOM6 TDOM7	•		TDAS2L1	-
		•	TDAS1R1	TDAS1R2

#### Publication References

Instructions:	
Door Hardware	GEH-5322
Auxiliary Contact Kit	GEH-5323
Flange Stiffener Kit or Extended Length Drive Rod	GEH-5324
Extended Drive Stud	GEH-5325
Operating Mechanism:	
SDOM1A through SDOM4, SDOM6	GEH-5684
TDOM1A through TDOM1D	GEH-5315
TDOM3	GEH-5317
TDOM4 and TDOM5	GEH-5318
TDOM6 and TDOM7	GEH-5319

## External Accessories

### Door-Mounted Operators



TDM Operating Handle, Fixed or Adjustable Shaft

#### TDM Handle Operating Mechanisms, Door Mounted

Complete mechanism with handle UL listed, E-57253

Operating mechanism only, UL Component Recognized, E-57253 SE150 Add-on 3-Pole Limiters

Breaker Type	Box Depth in Inches	Complete Mechanism <sup>1</sup> with NEMA 1, 3R, 12 Handle	Operating Mechanism Only	Handle Only		
				NEMA 1, 3R, 12	NEMA 4/4X	
		Product Number	Product Number	Product Number	Product Number	
TQD, THQD	Extended Shaft 4 5/16 - 14 5/16	TQDHM2	TQDOM2 <sup>2</sup>	TH1	THCH45 <sup>3,4</sup>	
TEB, TEC, TB1, TED, THED	Shallow Mount 4 3/16	TEFHM1	TEFOM1			
	Extended Shaft 5-1/8 - 5 7/32 5 1/8 - 5 13/16 5 1/8 - 15	TEFHM3	TEFOM3			
		TEFHM4	TEFOM4			
TFC, TFJ, TFK, THFK	Shallow Mount 5 7/8	TFKHM1	TFKOM1			
	Extended Shaft 6 7/8 - 15 1/2	TFKHM2	TFKOM2 <sup>2</sup>			
TJC, TJD, TJJ, TJK, THJK, TB4, TBC4	Shallow Mount 5 7/8	TJKHM1	TJKOM1			TH2
	Extended Shaft 5 5/8 - 15 5/8	TJKHM2	TJKOM2 <sup>4</sup>			
TKC, TKM, THKM, TB6, TBC6, TB8, TBC8	Shallow Mount 7 7/16	TKMHM1	TKMOM1			
	Extended Shaft 7 1/32 - 17 5/16	TKMHM2	TKMOM2 <sup>4</sup>			
SE150 (GEH-5611) <sup>5</sup>	4 3/16	SEFHM1	SEFOM1	TH1	THCH45 <sup>3,4</sup>	
	6 1/8 - 15	SEFHM2	SEFOM2 <sup>2</sup>			
SF250 (GEH-5611) <sup>5</sup>	5 7/8	SEFHM1	SEFOM1			
	7 3/4 - 15 1/2	SEFHM2	SEFOM2 <sup>2</sup>			
SG600 (GEH-5653) <sup>5</sup>	5 7/8	SGHM1	SGOM1	TH2		
	5 5/8 - 15 5/8	SGHM2	SGOM2 <sup>4</sup>			
SK1200 (GEH-5612) <sup>5</sup>	<sup>6</sup>	SKHM1	SKOM1			
	<sup>7</sup>	SKHM2	SKOM2 <sup>4</sup>			

<sup>1</sup>Handle assembly and operating mechanism separately packaged.

<sup>2</sup>For 15-inch long shaft order Product Number 788A831G10. For 20-inch long shaft order Product Number 788A831G20.

<sup>3</sup>Provides interlocking for J600, SG600 SK1200, and K1200 breakers when used with the extended shaft operating mechanism. For interlocking with E150/SE150, F225 and SF250 order special shaft Product Number 788A832G1.

<sup>4</sup>For 15-inch long shaft order Product Number 788A832G2. For 20-inch long shaft order Product Number 788A832G5.

<sup>5</sup>Installation instructions publication number.

<sup>6</sup>MOD 1 is 7 7/16; MOD 2 is 8 3/32.

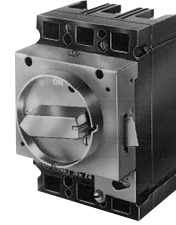
<sup>7</sup>MOD 1 is 7 3/16 - 17 3/16; MOD 2 is 7 15/16 - 17 15/16.

#### Handle Accessories for TDM Operating Mechanisms

Device	Product Number
Replacement neoprene gaskets for NEMA 1, 3R and 12 enclosures	
Use with TH1	788A742P3
Use with TH2	788A742P4

## External Accessories

### Door-Mounted Operators



TDR Handle on TED Circuit Breaker

#### TDR Integral Handle Mechanism<sup>1</sup> Suitable for NEMA 12 Applications<sup>2</sup>

Breaker Type	Handle			Door Ring - Interlock Catch Kit	NEMA 12 Gasket Kit
	Vertical Mounting Product Number	Horizontal Mounting Product Number	Ship Weight	Product Number	Product Number
TEB, TEC, TB1-B, TED, THED	TEFR1B	TEFR1HB	17 <sup>3</sup>	SEFRDRCK	SEFRGSK
TFC, TFJ, TFK, THFK	TFKR1B	TFKR1HB	22 <sup>3</sup>	343L483G5	
TJD, TJC, TJJ, TJK, THJK, TB4, TBC4	TJR1B	TJR1HB	5	343L483G2	SGRGSK
TKC, TKM, THKM, TB6, TB8, TBC6, TBC8	TKMR1B	TKMR1HB	5	SKRDRCK	SKRGSK
SE150, SF250 (GEH-5609) <sup>5</sup>	SEFR1 <sup>4</sup>	SEFR1H <sup>4</sup>	17 <sup>3</sup>	SEFRDRCK	SEFRGSK
SG600 (GEH-5654) <sup>5</sup>	SGR1	SGR1H	5	SGRDRCK	SGRGSK
SK1200 (GEH-5610) <sup>5</sup>	SKR1	SKR1H	5	SKRDRCK	SKRGSK

<sup>1</sup>Not suitable for use with mine duty or heavy duty UVR breakers.

<sup>2</sup>Requires Gasket kit.

<sup>3</sup>Shipped 12 per pack.

<sup>4</sup>For F250 Frame also order adapter bracket, Product Number SFRAK, no charge when ordered with handle.

<sup>5</sup>Installation instructions publication number.

## External Accessories

### Motor Operators and Plug-in Hardware



Motor Operated Mechanism on SF-Frame breaker

#### Motor Mounted Mechanism UL Listed

Breaker Type	Voltage		Product Number	Installation Instructions
	Vac 50/60 Hz	Vdc		
TEB, <sup>1</sup> TEC, TED, <sup>1</sup> THED, TB1, THLC1 <sup>2</sup>	-	24	TEDMOMA8	-
	120 <sup>3</sup>	-	TEDMOMA1	
	240 <sup>4,5</sup>	-	TEDMOMA2	
TJC, TJJ, TJD, TJK, THJK, TB4, TBC4	-	24	TJKMOMA8	-
	120	125	TJKMOMA1	
	240 <sup>4,5</sup>	250	TJKMOMA2	
SE150	120	125	SEMOM1	GEH-5613
	240 <sup>4</sup>	-	SEMOM2	
	-	24	SEMOM8	
SF250	120	125	SFMOM1	GEH-5613
	240 <sup>4</sup>	-	SFMOM2	
	-	24	SFMOM8	
SG600	120	125	SGMOM1	GEH-5657
	240 <sup>4</sup>	250	SGMOM2	
	-	24	SGMOM8	
SK1200	120	125	SKMOM1	GEH-5614
	240 <sup>4</sup>	250	SKMOM2	
	-	24	SKMOM8	

#### Mounting Screw Kit for Motor-Operated Mechanism<sup>6</sup>

Breaker Type	Mounting Screw Kit Product Number
TED, TB1	343L564G7
TFJ, TFK	343L564G1
TJJ, TJK, TB4	343L564G2
SG600	SGMSKMOM
TKM, TB6, TB8, SK	343L564G3

<sup>1</sup>For use on 3-pole breaker only.

<sup>2</sup>Motor-operated mechanisms must have Code Date 506 + or later for use with THLC1.

<sup>3</sup>TEDMOMA1 not rated at 50 hertz.

<sup>4</sup>Suitable for use at 208 Vac.

<sup>5</sup>Not UL listed.

<sup>6</sup>Required with plug-in mounting base assembly when used with motor-operating mechanisms or TDR integral-handle kits. Furnished no charge when ordered with mounting base.

## External Accessories

### Mechanical Interlocks and Locking Devices

#### Mechanical Interlocks

These face-mounted interlocks prevent two adjacent breakers from being in the ON position at the same time.

Spectra™ RMS Breaker Type	Face-mounted Interlock Product Number	Adapter Kit Required when using handle operator (TDM) or motor operator. Order separately.
SE150, SF250	SEFFMI	SEFFMIAK <sup>1</sup>
SG600	SGFMI	SGFMIAK <sup>2</sup>
SK1200	SKFMI	SKFMIAK

#### Handle-Locking, Handle-Extension Devices

Breaker Type	Device	Product Number
TEY	Handle locking	TEYLD1
E150 Line	Handle locking	TLD3
F225 Line, THLC2, 4	Handle locking	TFKLD1
SE150, SF250	Handle locking	SBD1
SK1200	Handle extension - replacement	SKHDLEXT

#### Standard Padlocking Devices<sup>3</sup>

Breaker Type	Device Product Number
TEY	TEYPLD1
E150, TB1	TEFPLD1
F225	TFKPLD1
J600 Line	TJKPLD1
K1200 Line	TKMPLD1
SE150, SF250	SEPLD <sup>5</sup>
SG600	SGPLD <sup>5</sup>
SK1200	SKPLD <sup>5</sup>

#### EUSERC Approved - Factory Installed Only

Breaker Type	Product Number
E150	TEDPLD2
SE150, SF250 <sup>4</sup>	SEFPLD2
SG600	SGPLD2
J600	TJKPLD2
SK1200	SKPLD2

<sup>1</sup>Not suitable with THCH45 handle.

<sup>2</sup>Compatible with motor operator only. Product Number SGFMI cannot be used with the handle operator.

<sup>3</sup>Suitable for circuit breakers used in group mounted panelboard construction only except for J600, K1200, SE150/SF250, SG600 and SK1200 which screw down to face of breaker.

<sup>4</sup>Field installable.

<sup>5</sup>Suitable for padlocking in either "ON" or "OFF" position.

## External Accessories

### Breaker Mounting Hardware and Kits

#### Breaker Mounting Screw Kits

Application	Spectra™ RMS Breaker Type	Kit Product Number	Screw Size (inches)
For use on mounting plates with tapped holes (4 screws and lockwashers)	SE150	SEMSK1	10-32x2 7/8 (std.)
		SEMSK3	8-32x2 7/8 (opt.)
	SF250	SFGMSK1	12-24x3 3/4 (std.)
		SFMSK1	10-32x3 3/4 (opt.)
		SFGMSK1	12-24x3 3/4
SK1200	SKMSK1	5/16-18x1 1/4	
For use on mounting plates with clearance holes (4 screws, lockwashers and nuts)	SE150	SEMSK2	10-32x3 (std.)
		SEMSK4	8-32x3 (opt.)
	SF250	SFGMSK2	12-24x4 (std.)
		SFMSK2	10-32x4 (opt.)
	SG600	SFGMSK2	12-24x4
	SK1200	SKMSK2	5/16-18x1 3/4

#### Breaker Mounting Screw Kits and Accessories

Application	Breaker Type	Product Number
Bolt-on Mounting Base	TEY	TEY3B <sup>1</sup>
For use on mounting plates with clearance holes	1-pole E150	343L162G1
	2- and 3-pole E150	SEMSK4
	F225	SFGMSK2
	K1200	SKMSK2
For use on mounting plates with tapped holes	1-pole TE, E150	343L162G7
	2- and 3-pole E150	SEMSK3
	2- and 3-pole TQD/THQD	343L184G18
	F225	SFGMSK1
	J600	343L162G11
Cup washer (for mounting 1-pole breakers)	E150	254V644P1
		(2 req'd per breaker)

#### Back-Connected Line and Load Studs

Breaker Type	Amperes	Length, Back of Breaker in Inches	Std Pkg	Product Number
E150 <sup>2</sup> , TB1 <sup>2</sup> , THLC1 <sup>2</sup>	50	2 25/32 (short)	1	TEF1
		4 13/32 (long)	1	TEF2
	150	3 13/32 (short)	1	TEF3
		5 25/32 (long)	1	TEF4
TFJ2, TFK <sup>2</sup> , THFK <sup>2</sup>	225	2 23/32 (short)	1	TFK1
		5 31/32 (long)	1	TFK2
K1200, TB6, TB8	1200	5 1/2	1	TKM11
		8	1	TKM12
SE150	50	2 25/32 (short)	1	TEF1
		4 13/32 (long)	1	TEF2
	150	3 13/32 (short)	1	TEF3
		5 25/32 (long)	1	TEF4
SF250	250	2 23/32 (short)	1	TFK1
		5 31/32 (long)	1	TFK2
SG600	600	2 13/16 (short)	1	SGBCS1
		6 1/16 (long)	1	SGBCS2
SK1200	1200	5 1/2	1	TKM11
		8	1	TKM12

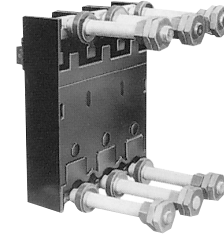
<sup>1</sup>Accepts up to 3-poles (any combination).

<sup>2</sup>For proper clearance between poles, a short and long stud must be assembled adjacent to each other.

<sup>3</sup>Contains 24 mounting screws.

## External Accessories

### Lugs and Associated Hardware



Breaker with Line and Load Studs

#### Lugs, Line Shields, Covers and Bus Connectors

Accessory	Wire Range	For Use With	Product Number	Description	
Copper-Aluminum Lugs	(1) #14-6 Cu, #12-2 Al	TQC (15-60A) (Non DIN Rail)	TQAL3	Single Lug	
	(1) #4-1/0 Cu-Al	TQC (70-100A)	TQAL4	Single Lug	
	(1) #4-300 kcmil Cu-Al		TQD	TCAL25	Single Lug
				TCALK325	3-Lug Kit
	(1) #14-8	E150, THLC1, TB1, (15-30A)	TCAL14	Single Lug	
	(1) #14-3 Cu, #12-1 Al	E150, THLC1, TB1, (15-60A)	TCAL12	Single Lug	
	(1) #6-2/0 Cu, #4-2/0 Al	E150, THLC1, TB1, (70-90A)	TCAL12A	Single Lug	
	(1) #3-3/0 Cu, #1-3/0 Al	E150, THLC1, TB1, (100-150A)	TCAL15	Single Lug	
	(1) #4-300 kcmil Cu-Al		F225	TCAL24	Single Lug
				TCALK324	3-Lug Kit
	(1) 6-600 kcmil or (2) 2/0-250 kcmil Cu-Al		J400, TB4, J600 (Thru 400A), TJD	TCAL43	Single Lug
	(2) 4/0-350 kcmil Cu or (2) 300-500 kcmil Al		J600 (450-600A)	TCAL63	Single Lug
				TCALK363	3-Lug Kit
	(1) 750 kcmil Cu-Al		J400 TJD	TCAL47	Single Lug
	(1) 3/0-500 kcmil or (2) 3/0-250 kcmil Cu-Al		TLB4, THLC4	TCLK43	Single Lug
	(2) 1/0-250 kcmil or (1) #4-600 kcmil Cu-Al		K1200, TB6 (300-400A)	TCAL41	Single Lug
				TCAL61	Single Lug
	(2) 2/0-500 kcmil Cu-A		K1200, TB6 (300-600A)	TCALK26 <sup>1</sup>	2-Lug Kit w/ Wrench
				TCALK36 <sup>1</sup>	3-Lug Kit w/ Wrench
				TCAL81 <sup>1</sup>	Single Lug
	(3) 3/0-500 kcmil Cu-Al		K1200, TB8 (600-800A)	TCALK281 <sup>1</sup>	2-Lug Kit w/ Wrench
				TCALK381 <sup>1</sup>	3-Lug Kit w/ Wrench
				TCAL91 <sup>1</sup>	Single Lug
(3) 3/0-500 kcmil Cu-Al		TK4V - Load end	TCALK291 <sup>1</sup>	2-Lug Kit w/ Wrench	
			TCALK391 <sup>1</sup>	3-Lug Kit w/ Wrench	
			TCAL121 <sup>2</sup>	Single Lug	
(4) 250-350 kcmil Cu or (4) 250-500 kcmil Al		K1200 (1000-1200A)	TCALK2121 <sup>2</sup>	2-Lug Kit w/ Wrench	
			TCALK3121 <sup>2</sup>	3-Lug Kit w/ Wrench	
			TCAL122 <sup>3</sup>	Single Lug	
(3) 750 kcmil Cu-Al		K1200 (1200A)	TCALK2122 <sup>3</sup>	2-Lug Kit w/ Wrench	
			TCALK3122 <sup>3</sup>	3-Lug Kit w/ Wrench	
			TCAL131 <sup>2</sup>	Single Lug	
Copper Only Lugs With Follower and Extra Plating	(4) 250-350 kcmil Cu or (4) 250-500 kcmil Al	TK4V - Load end	TCAL131 <sup>2</sup>	Single Lug	
	#14-2/0	E150, TB1 (thru 150A)	TC012	Single Lug	
	#4-300 kcmil Cu	TFJ (250A)	TC024	Single Lug	
	(1) 6-600 kcmil or (2) 1/0-250 kcmil Cu	J400, TB4	TC043	Single Lug	
	(2) 250-350 kcmil Cu	J600	TC063	Single Lug	
	(1) 1/0-600 kcmil or (2) 1/0-250 kcmil Cu	K1200, TB6 (300-400A)	TC041 <sup>4</sup>	Single Lug	
	(2) 2/0-500 kcmil Cu	K1200, TB6, (300-600A)	TC061	Single Lug	
	(3) 3/0-500 kcmil Cu	K1200, TB8 (600-800A)	TC081A	Single Lug	
	(3) 3/0-500 kcmil Cu	TK4V - Load end	TC091	Single Lug	
	(4) 250-400 kcmil Cu	K1200 (1000-1200A)	TC0121	Single Lug	
Line Shield	-	TEB, TEC, TED, THED	TEDLS	-	
			TFJ, TFK, TFC	TFKLS	-
			TJJ, TJK, TJC	TJKLS	-
Lug Cover, TKM Breaker (two per breaker)	-	TC061, TCAL61, TCAL81 Lugs, TC081A	789A448G1	-	
			TC0121; TCAL121 Lugs	789A448G2	-
Connector (back strap)	-	TKM	TKMC1	-	
Line voltage control wire kit for terminating control wire at breaker lugs	-	K1200	SKLVK <sup>6</sup>	-	

<sup>1</sup>Not suitable for 100 A aluminum conductor.<sup>2</sup>Suitable for 500 kcmil copper for voltage drop considerations.<sup>3</sup>Not UL listed, requires user supplied lug cover.<sup>4</sup>Not UL listed.<sup>5</sup>End cover supplied with 800A frame is used as lug cover.<sup>6</sup>3-pole kit.



## External Accessories

### Lugs and Associated Hardware

#### Spectra™ RMS Lugs, Lug Covers, and Bus Lugs

Accessory	For Use With	Wire Range (Qty.)		Product Number	Description	Ampacity Range <sup>1</sup>
		Copper	Aluminum			
Plated extruded aluminum lugs for terminating copper or aluminum cables	SE150	(1) #12-3/0	(1) #12-3/0	TCAL18	Single lug	15-150
				TCALK318	3-lug kit	15-150
	SF250	(1) #8-350 kcmil	(1) #8-350 kcmil	TCAL29	Single lug	70-250
				TCALK329	3-lug kit	70-250
	SG600	(2) 2/0-500 kcmil or (1) #8-600 kcmil	(2) 2/0-500 kcmil or (1) #8-600 kcmil	TCLK265 <sup>2</sup>	2-pole lug kit <sup>2</sup>	125-600
				TCLK365 <sup>2</sup>	3-pole lug kit <sup>2</sup>	125-600
	SK1200	(3) 350-750 kcmil	(3) 350-750 kcmil	TCAL124	Single lug	Cu 275-1200 Al 225-1100
				TCALK2124	2-lug kit w/wrench	Cu 275-1200 Al 225-1100
				TCALK3124	3-lug kit w/wrench	Cu 275-1200 Al 225-1100
		(3) 3/0-500 kcmil	(3) 3/0-500 kcmil	TCAL81	Single lug	300-800
				TCALK281	2-lug kit w/wrench	300-800
				TCALK381	3-lug kit w/wrench	300-800
				TCAL125	Single lug	600-1200
	(4) 250-500 kcmil	(4) 250-500 kcmil	TCALK2125	2-lug kit w/wrench	600-1200	
			TCALK3125	3-lug kit w/wrench	600-1200	
Replacement Lug Covers and End Covers	SE150	-	-	SE3LCK	Three lug covers for upper (line) end	-
		-	-	SE3LCKL	SE150 Lug Cover Kit (Mod For SEFR1 Handle)	-
	SF250	-	-	SF3LCK	Three lug covers for upper (line) end	-
	SG600	-	-	SG1LCK	3-pole lug cover for upper (line) or lower (load) end	-
				SG1BCK <sup>4</sup>	3-pole lug cover for upper (line) or lower (load) end <sup>4</sup>	-
	SK1200	-	-	SK1LCK <sup>3</sup>	Lug cover for upper (line) or lower (load) end <sup>3</sup>	-
Plated Copper Lugs	SE150	(1) #12-3/0	-	TCO18	Single lug	15-150
	SF250	(1) #8-350 kcmil	-	TCO29	Single lug	70-250
	SG600	(2) 2/0-500 kcmil or (1) #8-600 kcmil	-	TCOK265	2-pole lug kit	125-600
				TCOK365	3-pole lug kit	125-600
	SK1200	(3) 250-500 kcmil (4) 250-400 kcmil (3) 350-750 kcmil (4) 250-500 kcmil	-	TCO81A	Single lug	300-800
				TCO121	Single lug	600-1200
				TCO124	Single lug	600-1200
				TCO125	Single lug	600-1200
Line voltage control wire kit for terminating control wire at breaker lugs	SE150	(1) #12-3/0	(1) #12-3/0	TCAL18LV	Single lug with .25 Quick Connect for Control Voltage	15-150
	SF250	(1) #8-350 kcmil	(1) #8-350 kcmil	TCAL29LV	Single lug with .25 Quick Connect for Control Voltage	70-250
	SG600	-	-	SGLVK	Single .25 Quick Connect	-
	SK1200	-	-	SKLVK	Single .25 Quick Connect	-
Clear rating plug cover with provision for wire seal	SG600 / SK1200	-	-	SPCOV1 SPCOV2 SPCOV3	For MicroVersaTrip™ Plus and PM trip units Replacement cover Cover with access to instantaneous set point Cover with no access to instantaneous set point	-
				SPCOV1C SPCOV3C	For microEntelliGuard™ Trip Units Replacement cover Cover with no access	-

<sup>1</sup>Both copper and aluminum cables may not cover full ampacity range.

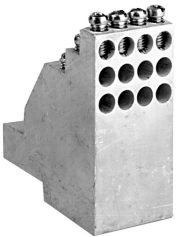
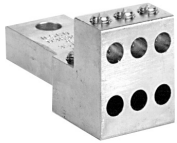
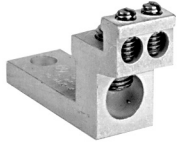
<sup>2</sup>With lug cover for line or load end.

<sup>3</sup>100kA, 480 Vac (SKPA) uses longer lug cover/arc shield on upper end. Use Product Number SKPSHLD for replacement. May be used on other SK1200 devices.

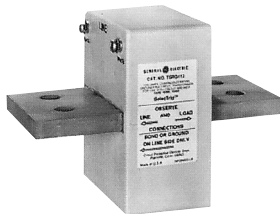
<sup>4</sup>Required for line end bus connection.

## External Accessories

### Neutral Grounds and Sensors



Power Distribution Lugs



Neutral Current Sensor

#### Power Distribution Lugs

Breaker Type	Max Amperes	Wire Range	Product Number	Description
SE <sup>1</sup> , TED	125	(2) 4-14 or (1) 2/0-4 Cu only	TCAL19PD1	Power Distribution Lug
			TCAL19PD3	3-Lug Power Distribution Lug Kit
SF	250	(6) 4-14 Cu only	TCAL28PD1	Power Distribution Lug
			TCAL28PD3	3-Lug Power Distribution Lug Kit
SG	400	(12) 4-14 Cu only	TCAL40PD1	Power Distribution Lug
			TCAL40PD3	3-Lug Power Distribution Lug Kit

<sup>1</sup>Lug barrier supplied is only suitable for the load/bottom side of the breaker.

#### Neutral Current Sensors

For grounded neutral system ground fault applications

Breaker Type	Ampere Rating	Product Number
J	150	TSRG201
	200	TSRG202
	300	TSRG203
	400	TSRG204
	500	TSRG205
	600	TSRG206
K	800	TSKG408
	1000	TSKG410
	1200	TSKG412

#### Rating Plug Removal Tool

For grounded neutral system ground fault applications

Product Number
TRTOOL

#### "Naval Use" Molded Case Circuit Breakers

The following molded case circuit breaker types are optionally available as UL listed per Standard 489, Supplement SB for naval use:

- THQB
- THQC
- SE150
- SF250
- SG600
- SK1200

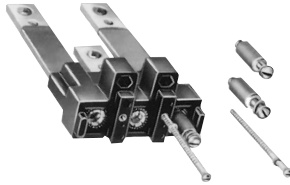
Contact ABB sales office for price and delivery.

#### Special Calibration

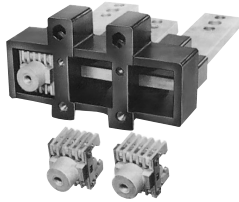
Contact ABB sales office for availability. May void UL listing status.

## External Accessories

### Plug-in Hardware



Plug-in Mounting Base with Hardware  
Product Number TF23PD2 shown



Plug-in Mounting Base  
Product Number TK123PD2A shown

Each plug-in mounting base assembly includes all mounting hardware, studs, and male or female connectors for attachment to one end of breaker. Studs are of different length so by using proper combinations of PD1 and PD2 units, adequate electrical spacing will be assured between adjacent breakers, i.e., a shortlong- short (SLS) unit must be used adjacent to a long-short-long (LSL) unit. Two-pole breakers of the E150 line require an openlong- short (OLS) unit on one end of the breaker and a short-longopen (SLO) on the other since these breakers are built with the normal left pole missing while the mounting bases are built from standard three-pole molded supports.

Spectra™ RMS and all other two-pole breakers are basically threepole devices with the center pole omitted. When these breakers are to be mounted side by side, a short-open-short (SOS) unit must be used on one end and a long-open-long (LOL) on the other. Horizontal studs are normally supplied with the flat surface of studs at right angles to the long axis of the breaker. If vertical studs are desired, substitute "C" for "D" in the product number, e.g., TE13PC1 (vertical) or TE13PD1 (horizontal).

The optional mounting plate (TMP1, etc.) accurately locates and supports the pair of line and load plug-in mounting-base assemblies and provides a convenient means to attach the entire unit to a metal structure, and serves as a dead front barrier. New drawings are available for customers who prefer to fabricate their own mounting plates.

#### Plug-In Mounting Base Assembly

Plug-In Mounting Bases - 2 Required Per Breaker						Optional Mounting Base
Ampere Rating	Breaker Type	No. Poles	Stud Configuration		Product Number	Product Number
			PD1	PD2		
150	E150 <sup>1</sup>	2	OLS	SLO	TE12PD1,2	TMP1
	SE150	3	SLS	LSL	TE13PD1,2	TMP1
250	SF250	2	SOS	LOL	TF22PD1,2	TMP2
		3	SLS	LSL	TF23PD1,2	TMP2
		3	SLS	LSL	TF23PC1	TMP2
400	J400	2	SOS	LOL	TJ42PD1A,2A	TMP3
		3	SLS	LSL	TJ43PD1A,2A	TMP3
		3	SLS	LSL	TJ43PC1A	TMP3
		3	SLS <sup>2</sup>	LSL <sup>2</sup>	SGPC1, SGPC2	SMP3
600	J600	2	SOS	LOL	TJ62PD1A,2A	TMP3
		3	SLS	LSL	TJ63PD1A,2A	TMP3
		3	SLS	LSL	TJ63PC1A	TMP3
		3	SLS <sup>2</sup>	LSL <sup>2</sup>	SGPC7	SMP3
800	SK800	3	SLS	LSL	TK83PD1A,2A	TMP4
		3	SLS	LSL	TK83PC1A,2A	TMP4
1000	SK1200	3	SLS	LSL	TK103PD1A,2A	TMP4
		3	SLS	LSL	TK103PC1A,2A	TMP4
1200	SK1200	3	SLS	LSL	TK123PD1A,2A	TMP4
		3	SLS	LSL	TK123PC1A,2A	TMP4

<sup>1</sup>Order 3-pole base for use with 2-pole Hi Break and 600 Vac breakers.

<sup>2</sup>Vertical studs only for SG600 frame.

# Industrial Circuit Breakers

## OBSOLETE PRODUCT

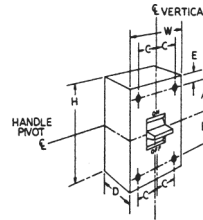
### Quick Reference Guide

### 15-1200A Circuit Breakers

### Thermal Magnetic Trip

Ratings do not apply to molded case switches.  
 Maximum interruption ratings and voltages shown.  
 A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table.

That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.



TFI/TFK

**F225 (UL File E-11592; TFI, Fixed Thermal Magnetic Trip Unit; TFK, THFK: Interchangeable Thermal Mag. Trip Unit; CSA LR 40350)**

TFI <sup>2</sup>	70-225	2	480	250	-	-	25	-	22	-	-	10	-	-	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
	70-250	3	600	500	-	-	-	-	-	18	-	10	10 <sup>1</sup>	-	-	-	-	-	-	-	-	12 lb/1
TFK <sup>2</sup>	70-225	2	480	250	-	-	25	-	22	-	-	10	-	-	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
		3	600	500	-	-	-	-	-	-	18	-	10	10 <sup>1</sup>	-	-	-	-	-	-	-	12 lb/1
THFK <sup>2</sup>	70-225	2	480	250	-	-	65	-	25	-	-	10	-	-	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1
		3	600	500	-	-	-	-	-	-	18	-	10	10 <sup>1</sup>	-	-	-	-	-	-	-	12 lb/1
TFI <sup>8</sup>	70-225	3	600	-	-	100	100	-	65	25	-	-	-	-	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	-

**J600 (UL File E-11592; TJJ, Fixed Thermal Magnetic Trip Unit; TJK, THJK: Interchangeable Thermal Mag. Trip Unit; CSA LR 40350)**

TJJ, TJK4	125-175	2	600	250	-	-	42	-	30	22	-	20	-	-	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	16 lb/1
		3		500	-	-	-	-	-	-	-	20	20 <sup>1</sup>	-	-	-	-	-	-	-	-	-
TJK6	125-175	2	600	250	-	-	42	-	30	22	-	20	-	-	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	18 lb/1
		3		500	-	-	-	-	-	-	-	20	20 <sup>1</sup>	-	-	-	-	-	-	-	-	-
THJK4	125-175	2	600	250	-	-	65	-	35	25	-	40	-	-	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	16 lb/1
		3		500	-	-	-	-	-	-	-	40	20 <sup>1</sup>	-	-	-	-	-	-	-	-	-
THJK6	125-175	2	600	250	-	-	65	-	35	25	-	40	-	-	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	18 lb/1
		3		500	-	-	-	-	-	-	-	40	20 <sup>1</sup>	-	-	-	-	-	-	-	-	-
THJK4 D	125-400	3	-	600	-	-	-	-	-	-	-	40	50	25	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	17 1/2 lb/1
THJK6 D	250-400	3	-	600	-	-	-	-	-	-	-	40	50	25	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/8	1 3/16	20 lb/1

**K1200 (UL File E-11592; Interchangeable Thermal Magnetic Trip Unit; CSA LR 40350)**

TKM8	300-800	2	600	250	-	-	42	-	30	22	-	20	-	-	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	33 lb/1
		3		500	-	-	-	-	-	-	-	20	22 <sup>1</sup>	-	-	-	-	-	-	-	-	-
TKM12	600-1200	2	600	-	-	-	42	-	30	22	-	-	-	-	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	38 lb/1
		3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
THKM8	300-800	2	600	250	-	-	65	-	35	25	-	40	-	-	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	33 lb/1
		3		500	-	-	-	-	-	-	-	40	22 <sup>1</sup>	-	-	-	-	-	-	-	-	-
THKM12	600-1200	2	600	-	-	-	65	-	35	25	-	-	-	-	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	38 lb/1
		3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>1</sup>UL listed with poles in series for 500 Vdc ungrounded battery applications.

<sup>6</sup>480Y/277 Vac.

<sup>2</sup>UL listed as HACR (heating, air conditioning, and refrigeration).

<sup>7</sup>UL listed 10kA, GE tested to 20kA.

<sup>3</sup>15-50A UL listed as HID (high intensity discharge).

<sup>8</sup>Not CSA listed

<sup>4</sup>10 amp not UL listed, rated 5kA @ 120V, 240V and 480V

<sup>5</sup>UL listed/CSA Certified for 10kA @ 347 Vac (TED) and 18kA @ 347V (THED). Also rated 10kA @ 480V but not UL listed.

# Industrial Circuit Breakers

## OBSOLETE PRODUCT

### Quick Reference Guide

#### TF and TK Cross Reference Table

Transition guide – Obsolete TF and TK Molded Case Circuit Breakers, switches and Motor Circuit Protectors to Spectra RMS equivalents.

Spectra RMS products are not DC rated. For DC applications, continue use of TJ frame Molded Case Circuit Breakers.

#### Molded Case Circuit Breakers

F225	AIC	Frame Rating	Trip Unit	Poles	Voltage	Obsolete Product Number	Spectra	AIC	Poles	Voltage	Frame Product Number	Rating Plug Product Number	Lugs Product Number
TFJ	22kA	225A	noninterchangeable	2	480V	TFJ224XXX	SFH	35kA	2	480V	SFHA24AT0250	SRPF250AXXX	(2) TCAL29
	22kA	225A	noninterchangeable	3	600V	TFJ236XXX	SFH	35kA	3	600V	SFHA36AT0250	SRPF250AXXX	(3) TCAL29
TFK	22kA	225A	interchangeable	2	480V	TFK224XXX	SFH	35kA	2	480V	SFHA24AT0250	SRPF250AXXX	(2) TCAL29
	22kA	225A	interchangeable	3	600V	TFK236XXX	SFH	35kA	3	600V	SFHA36AT0250	SRPF250AXXX	(3) TCAL29
THFK	25kA	225A	interchangeable	2	480V	THFK224XXX	SFH	35kA	2	480V	SFHA24AT0250	SRPF250AXXX	(2) TCAL29
	25kA	225A	interchangeable	3	600V	THFK236XXX	SFH	35kA	3	600V	SFHA36AT0250	SRPF250AXXX	(3) TCAL29

#### Molded Case Circuit Breakers

K1200	AIC	Frame Rating	Trip Unit	Poles	Voltage	Obsolete Product Number	Spectra	AIC	Poles	Voltage	Frame Product Number	Rating Plug Product Number	Lugs Product Number
TKMA	30kA	800A	interchangeable	2	600V	TKMA826XXX	SKHA	50kA	2	600V	SKHA26AT0800	SRPK800AXXX	(2) TCAL81
	30kA	800A	interchangeable	3	600V	TKMA836XXX	SKHA	50kA	3	600V	SKHA36AT0800	SRPK800AXXX	(3) TCAL81
THKMA	35kA	800A	interchangeable	2	600V	THKMA826XXX	SKHA	50kA	2	600V	SKHA26AT0800	SRPK800AXXX	(2) TCAL81
	35kA	800A	interchangeable	3	600V	THKMA836XXX	SKHA	50kA	3	600V	SKHA36AT0800	SRPK800AXXX	(3) TCAL81
THKMA	30kA	1200A	interchangeable	2	600V	TKMA2XXXX	SKHA	50kA	2	600V	SKHA26AT1200	SRPK1200AXXX	(2) TCAL125
	30kA	1200A	interchangeable	3	600V	TKMA3XXXX	SKHA	50kA	3	600V	SKHA36AT1200	SRPK1200AXXX	(3) TCAL125
THKMA	35kA	1200A	interchangeable	2	600V	THKMA2XXXX	SKHA	50kA	2	600V	SKHA26AT1200	SRPK1200AXXX	(2) TCAL125
	35kA	1200A	interchangeable	3	600V	THKMA3XXXX	SKHA	50kA	3	600V	SKHA36AT1200	SRPK1200AXXX	(3) TCAL125

#### Molded Case Switches

Type	AIC	Frame Rating	Trip Unit	Poles	Voltage	Obsolete Product Number	Spectra	AIC	Poles	Amps	Product Number	Rating Plug Product Number	Lugs Product Number
TFK	N/A	225A	N/A	2	600V	TFK226Y225	SF250	N/A	3	250A	SFDA36AN0250	N/A	(3) TCAL29
TFK	N/A	225A	N/A	3	600V	TFK236Y225	SF250	N/A	3	250A	SFDA36AN0250	N/A	(3) TCAL29
TKM	N/A	800A	N/A	2	600V	TKMA826Y800	SK1200	N/A	3	800A	SKDA36AN0800	N/A	(3) TCAL81
TKM	N/A	800A	N/A	3	600V	TKMA836Y800	SK1201	N/A	3	800A	SKDA36AN0800	N/A	(3) TCAL81
TKM	N/A	1000A	N/A	2	600V	TKMA2Y1000	SK1202	N/A	3	1000A	SKDA36AN1000	N/A	(3) TCAL125
TKM	N/A	1000A	N/A	3	600V	TKMA3Y1000	SK1203	N/A	3	1000A	SKDA36AN1000	N/A	(3) TCAL125
TKM	N/A	1200A	N/A	2	600V	TKMA2Y1200	SK1204	N/A	3	1200A	SKDA36AN1200	N/A	(3) TCAL125
TKM	N/A	1200A	N/A	3	600V	TKMA3Y1200	SK1205	N/A	3	1200A	SKDA36AN1200	N/A	(3) TCAL125

#### Motor Circuit Protectors

Type	AIC	Frame Rating	Inst Trip Amp Rating	Poles	Voltage	Obsolete Product Number	Spectra	AIC	Poles	Amps	Product Number	Rating Plug Product Number	Lugs Product Number
TF	30kA	225A	600 - 1400	3	N/A	TFC36225	SFLA	65kA	3	250A	SFLA36AI0250	SRPF250AXXX	(3) TCAL29
TF	30kA	225A	100 - 2250	3	N/A	TFC36225A	SFPA	100kA	3	250A	SFPA36AI0250	SRPF250AXXX	(3) TCAL29
TK	30kA	800A	3000 - 6000	3	N/A	TKC36800L	SKLA	65kA	3	800A	SKLA36AI0800	SRPK800AXXX	(3) TCAL81
TK	30kA	800A	5000 - 10000	3	N/A	TKC36800M	SKLA	65kA	3	800A	SKLA36AI0800	SRPK800AXXX	(3) TCAL81
TK	30kA	1200A	3000 - 6000	3	N/A	TKC361200L	SKLA	65kA	3	1200A	SKLA36AI1200	SRPK1200AXXX	(3) TCAL125
TK	30kA	1200A	5000 - 10000	3	N/A	TKC361200M	SKLA	65kA	3	1200A	SKLA36AI1200	SRPK1200AXXX	(3) TCAL125

#### Legend

XXX = Variable in Product Number changes per application

#### Spectra RMS Accessories

Description	Product Number
Shunt Trip	SASTX
Auxiliary Switch	SAUXPABX
UV Release	SAUVX
Bell Alarm	SABAP1
Actuator	SACTUATOR

# Industrial Circuit Breakers

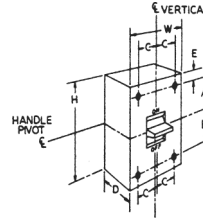
## OBSOLETE PRODUCT

### Quick Reference Guide

Ratings do not apply to molded case switches.

Maximum interruption ratings and voltages shown.

A circuit breaker of the type given in the left-hand column may be applied at the given circuit voltage in any electrical distribution system where the available fault current at the load terminals of the breaker does not exceed the value in the table. That circuit breaker type may also be applied at intermediate values of circuit voltage provided the available fault current at the load terminals of the breaker does not exceed the value in the table for the higher value of voltage.



TJB6S

#### Tri-Break (UL File E-42263; Integrally Fused, Thermal Magnetic Trip Unit)

Circuit Breaker Type	Ampere Rating	No. Poles	Maximum Voltage Rating		UL Listed Interrupting Rating—rms Symmetrical Amps (In Thousands)								Dimensions (in)						Approx. Ship Wt./Std. Pack	
			ac	dc	Vac				Vdc				H	W	D	A	B	C		E
					120	120/240	240	277	480	600	125	250								
TB1 <sup>1,2</sup>	15-100	3	600	—	—	—	200	—	200	200	—	—	10 5/16	4 1/8	3 5/8	2 21/32	6 9/32	11/16	23/32	8 lb/1
TB4 <sup>1,3</sup>	125-400	3	600	—	—	—	200	—	200	200	—	—	16 1/8	8 1/4	4 1/2	3 15/16	9 13/16	1 3/8	1 3/16	31 lb/1 33 lb/1
TB6 <sup>1,3</sup>	300-600	3	600	—	—	—	200	—	200	200	—	—	21 7/8	8 1/4	5 7/8	8 9/16	12 1/16	1 3/8	5/8	53 lb/1 55 lb/1
TB8 <sup>1,3</sup>	600-800	3	600	—	—	—	200	—	200	100	—	—	21 7/8	8 1/4	5 7/8	8 9/16	12 1/16	1 3/8	5/8	53 lb/1 55 lb/1

#### Mag-Break (UL Files E-11592, E-66390; Magnetic Trip Unit)<sup>4</sup>

TEC	3-150	2	480	250	—	—	10	—	10	10	—	10	6 5/16	4 1/8	3 7/8	2 41/64	2 15/64	11/16	23/32	21 lb/6
		3	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TEML	3-150	3	600	250	—	—	100	—	65	25	—	—	6 5/16	4 1/8	3 3/8	2 41/64	2 15/64	11/16	23/32	3 1/2 lb/1
TEC & TECL <sup>5</sup>	3-150	3	600	—	—	—	100	—	100	100	—	—	8 3/16	4 1/8	3 13/16	2 41/64	2 15/64	11/16	23/32	1.2 lb/1 TECL Only
TFC	225	3	600	—	—	—	25	—	22	18	—	—	10 1/8	4 1/8	3 13/16	3 7/8	3 7/8	11/16	1 3/16	10 lb/1 12 lb/1
TBC4	225-400	3	600	—	—	—	100	—	100	100	—	—	16 1/8	8 1/4	4 1/2	3 15/16	9 13/16	1 3/8	1 3/16	31 lb/1 33 lb/1
TBC6	600	3	600	—	—	—	100	—	100	100	—	—	21 7/8	8 1/4	5 7/8	8 9/16	12 1/16	1 3/8	5/8	53 lb/1 55 lb/1
TKC	800-1200	3	600	—	—	—	42	—	30	22	—	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	38 lb/1 41 1/2/1
TBC8	800	3	600	—	—	—	100	—	100	100	—	—	21 7/8	8 1/4	5 7/8	8 9/16	12 1/16	1 3/8	5/8	53 lb/1 55 lb/1

#### MicroVersaTrip (UL File E-11592; Solid-State Trip Units)

TJ4V <sup>6,7</sup>						42	42		30	22											
THJ4V <sup>6,7</sup>	150-600	3	600	—	—	65	65	—	35	25	—	—	10 1/8	8 1/4	3 13/16	3 15/16	3 13/16	1 3/16	1 3/16	—	
TJL4V <sup>6</sup>						100	100	—	65	30											
TK4V <sup>6</sup>	800-1200	3	600	—	—	42	42	—	30	22	—	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	—	
TKL4V <sup>6</sup>	800-1200	3	600	—	—	100	100	—	65	42	—	—	15 1/2	8 1/4	5 1/2	8 9/16	5 11/16	1 3/8	5/8	—	
TJH1S-6S	60-600	3	600	—	—	65	65	—	35	25	—	—	16 1/8	8 1/4	3 13/16	3 15/16	9 13/16	1 3/8	1 3/16	—	
TJL1S-6S	60-600	3	600	—	—	100	100	—	65	30	—	—	16 1/8	8 1/4	3 13/16	3 15/16	9 13/16	1 3/8	1 3/16	—	
TKH8S, 12S	300-1200	3	600	—	—	65	65	—	50	25	—	—	21 7/8	8 1/4	5 1/2	8 9/16	12 11/16	1 3/8	5/8	—	
TKL8S, 12S	300-1200	3	600	—	—	100	100	—	65	42	—	—	21 7/8	8 1/4	5 1/2	8 9/16	12 11/16	1 3/8	5/8	—	

<sup>6</sup>CSA LR 57114.

<sup>7</sup>CSA LR 40350.

<sup>4</sup>Per UL 489, interrupting capacities are not shown on product label.

1UL listed with internally mounted accessories at 100,000 amps IC.

Contact GE Sales Office for availability of 200 kAIC ratings with internal accessories.

<sup>3</sup>Ratings shown for TEC in combination with TECL.

<sup>6</sup>With Power+ 4 trip unit.

<sup>7</sup>Suitable for single-phase, use outer two poles.