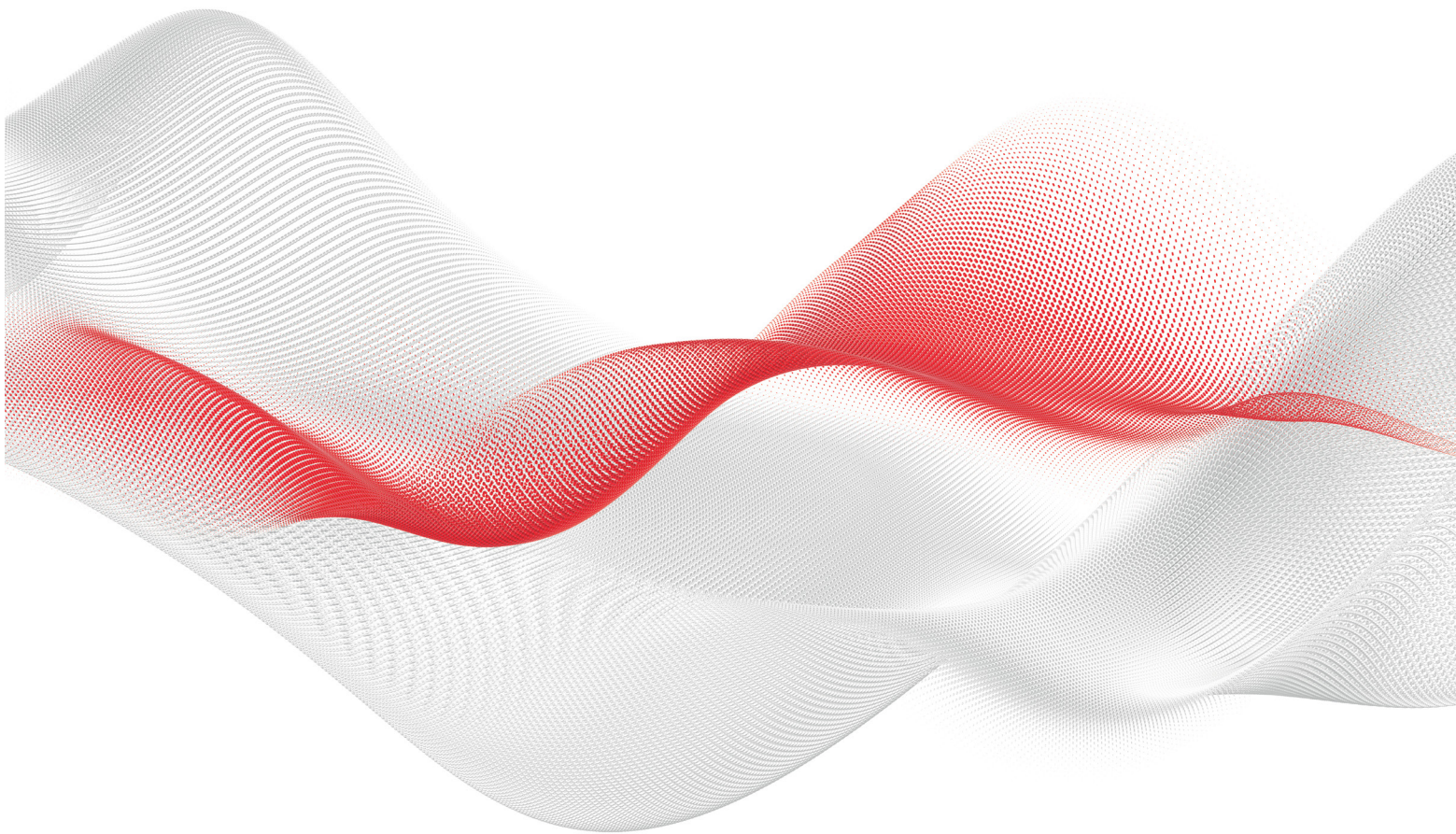


STOCKING GUIDE

ABB Electrification

Mt. Juliet Distribution Center

Quarter 1 | 2024



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**To better serve our customers,
products featured in this Stocking
Guide are stocked and shipped from
our state-of-the-art distribution
center located in Mt. Juliet,
Tennessee.**

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Load centers, associated circuit breakers and accessories

Section 1

Load centers, associated circuit breakers and accessories

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Load center circuit breakers

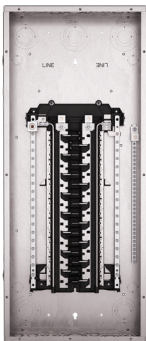
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PowerMark PRO load centers

Product overview



With advanced plug-on neutral electronic circuit breakers that attach to the neutral bus using ABB's unique ReliaLock™ connection feature and round plug-on neutral bars, PowerMark PRO's features enable you to perform faster and more efficient circuit breaker installations.

- UL listed (Panelboards No. 67)
- Single-phase, three-wire, 120/240 V AC
- 60°C/75°C conductor rating
- Suitable for use as Service Entrance Equipment when installed in accordance with National Electrical Code
- 22kAIC RMS symmetrical, except where noted

Features

Ordering code construction

	P	M	12	10	C	
PowerMark PRO						Insert for specials FL = Feed through lug
Type						Enclosure type/color
M = Main breaker						C = Gray indoor
LM = Main lug/convertible						W = White indoor
						R = Outdoor
Maximum number 1" spaces						Bus ampere rating
8, 12, 24, 32, 40, 42, 60						10 = 100 Amps
						12 = 125 Amps
						15 = 150 Amps
						20 = 200 Amps
						22 = 225 Amps

PowerMark PRO load centers

Main lugs factory installed

Main lug, factory installed, indoor (NEMA 1) enclosure, top/bottom feed¹

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
125	12	6	12	24	Combination	6-2/0	TGK12 and TNLK20 installed	PLM1212C
	24	12	24	48	Combination	6-2/0	TGK 24 and TNLK20 installed	PLM2412C
	32	16	32	64	Combination	6-2/0	TGK32 and TNLK20 installed	PLM3212C
200	32	16	32	64	Combination	6-250	TGK32 and TNLK20 installed	PLM3220C
	40	20	40	80	Combination	6-250	TGK42 and TNLK20 installed	PLM4020C
225	42	20	42	84	Combination	1-300	TGK42 and TNLK20 installed	PLM4222C

¹PLM indicates units are convertible to main breaker

Main lug, factory installed, indoor (NEMA 1) enclosure, top/bottom feed, white trim¹

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
125	12	6	12	24	Combination	6-2/0	TGK12 and TNLK20 installed	PLM1212W
	24	12	24	48	Combination	6-2/0	TGK 24 and TNLK20 installed	PLM2412W
	32	16	32	64	Combination	6-2/0	TGK32 and TNLK20 installed	PLM3212W
200	32	16	32	64	Combination	6-250	TGK32 and TNLK20 installed	PLM3220W
	40	20	40	80	Combination	6-250	TGK42 and TNLK20 installed	PLM4020W
225	42	20	42	84	Combination	1-300	TGK42 and TNLK20 installed	PLM4222W

¹PLM indicates units are convertible to main breaker

Main lug, factory installed, outdoor (NEMA 3R) enclosure, top/bottom feed¹

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
125	24	12	24	48	–	6-2/0	TGK24 and TNLK20 installed	PLM2412R
200	32	16	32	64	–	6-250	TGK32 and TNLK20 installed	PLM3220R
	40	20	40	80	–	6-250	TGK42 and TNLK20 installed	PLM4020R

¹PLM indicates units are convertible to main breaker

NOTE: Circuit breakers must be ordered separately. [Click here.](#)

PowerMark PRO load centers

Main breaker factory installed

Main breaker, factory installed, indoor (NEMA 1) enclosure, top/bottom feed

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
100	12	6	12	24	Combination	4-1/0	TGK12 or TGK24 (order separately) TLK20 kit included	PM1210C
	24	12	24	48	Combination	4-1/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM2410C
	32	16	32	64	Combination	4-1/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3210C
125	12	6	12	24	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM1212C
	24	12	24	48	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM2412C
	32	16	32	64	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3212C
150	24	16	32	48	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM2415C
	32	16	32	64	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3215C
	40	20	40	80	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4015C
200	24	16	32	48	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM2420C
	32	16	32	64	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3220C
	40	20	40	80	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4020C
	60	30	60	120	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM6020C
225	42	20	42	84	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4222C

Main breaker, factory installed, indoor (NEMA 1) enclosure, top/bottom feed, white trim

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
100	12	6	12	24	Combination	4-1/0	TGK12 or TGK24 (order separately) TLK20 kit included	PM1210W
	24	12	24	48	Combination	4-1/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM2410W
	32	16	32	64	Combination	4-1/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3210W
125	12	6	12	24	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM1212W
	24	12	24	48	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM2412W
	32	16	32	64	Combination	2-2/0	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3212W
150	24	16	32	48	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM2415W
	32	16	32	64	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3215W
	40	20	40	80	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4015W
200	24	16	32	48	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM2420W
	32	16	32	64	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 (order separately) TLK20 Kit Included	PM3220W
	40	20	40	80	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4020W
	60	30	60	120	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM6020W
225	42	20	42	84	Combination	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM4222W

NOTE: Circuit breakers must be ordered separately. [Click here.](#)

PowerMark PRO load centers

Main breaker factory installed

Main breaker, factory installed, outdoor (NEMA 3R) enclosure, top feed

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
100	24	12	24	48	–	4-1/0	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM2410R
125	24	12	24	48	–	2-2/0	TGK12 or TGK24 or TGK42 (order separately) TLK20 Kit Included	PM2412R
200	32	16	32	64	–	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM3220R
	40	20	40	80	–	1-300 Cu, 2/0-300 Al	TGK12 or TGK24 or TGK32 or TGK42 (order separately) TLK20 Kit Included	PM4020R

Main breaker with feed through lugs, factory installed, outdoor (NEMA 3R) enclosure, top feed

Main ampere rating	1 pole, 1" spaces	2 pole, 1" spaces	Total 1-pole spaces	Max Single Pole Circuits	Front type	Main wire size (AWG/kcmil) Cu-Al	Equipment ground kit	Ordering Code
150	8	4	8	16	–	1-300 Cu, 2/0-300 Al	TGK24 or TGK32 (order separately) TLK20 kit included	PM815RFL
200	8	4	8	16	–	1-300 Cu, 2/0-300 Al	TGK24 or TGK32 (order separately) TLK20 kit included	PM820RFL

PowerMark Gold and Plus Load Centers

Ordering code construction

T	M	42		20	C	CU	B
ABB Identification							Insert for Specials
							G or T = Factory installed ground bar
							B = Bottom feed main breaker
							FL = Factory installed feed-through lugs
							D = Optional door for 6-8 circuit panel. (Doors standard on all units 12 circuits or greater)
							W = White Front
Type							Insert for PowerMark Gold
M = Main breaker							CU = Copper Bus
L = Main lug							42 = Copper Bus Full 42 circuit panel
LM = Convertible							
PL = Main lug (Thermoplastic)							
Maximum Number 1" Spaces							
2, 4, 6...42							
Single phase = Omit this field							
4 = 3-phase, 4-wire							
Load Centers							
							Enclosure Type
							C = Combination surface/flush
							F = Flush
							S = Surface
							R = Outdoor
							Bus Ampere Rating
							40 = 40 Amps 20 = 200 Amps
							70 = 70 Amps 22 = 225 Amps
							10 = 100 Amps
							12 = 125 Amps
							15 = 150 Amps

PowerMark Gold single phase, three wire, 120/240 VAC load centers

Main lugs factory installed



Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type ¹	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
40	2	1	4	1	4	4	Surface	Top Bottom	1A	14-4	TGK4 (order separately)	TL240SCU
70	2	1	4	1	4	4	Surface	Top Bottom	1A	6-3	TGK4 (order separately)	TL270SCU
125	4	2	8	3	8	8	Combination Flush/Surface	Top Bottom	2A	1-2/0	TGL1 (order separately)	TL412C
125	4	2	8	3	8	8	Combination Flush/Surface	Top Bottom	2A	1-2/0	TGL1 installed	TL412CT
125	4	2	8	3	8	8	Thermoplastic	Top Bottom	2	1-2/0	TGL1 (order separately)	TPL412C
125	4	2	8	3	8	8	Thermoplastic	Top Bottom	2	1-2/0	TGL1 installed	TPL412CT
125	6	3	12	4	12	12	Flush	Top Bottom	3A	6-1	TGL2 (order separately)	TLM612FCU
125	6	3	12	4	12	12	Flush	Top Bottom	3A	6-1	TGL2 (order separately)	TLM612FCUD
125	6	3	12	4	12	12	Surface	Top Bottom	3A	6-1	TGL2 (order separately)	TLM612SCU
125	6	3	12	4	12	12	Surface	Top Bottom	3A	6-1	TGL2 (order separately)	TLM612SCUD
125	6	3	12	4	12	12	Surface	Top Bottom	3A	6-1	TGL2 installed	TLM612SCUDG
125	8	4	16	8	16	16	Flush	Top Bottom	3A	6-1	TGL2 (order separately)	TLM812FCU
125	8	4	16	8	16	16	Flush	Top Bottom	3A	6-1	TGL2 (order separately)	TLM812FCUD
125	8	4	16	8	16	16	Flush	Top Bottom	3A	6-1	TGL2 (order separately)	TLM812FCUDG
125	8	4	16	8	16	16	Surface	Top Bottom	3A	6-1	TGL2 (order separately)	TLM812SCU
125	8	4	16	8	16	16	Surface	Top Bottom	3A	6-1	TGL2 (order separately)	TLM812SCUD
125	8	4	16	8	16	16	Surface	Top Bottom	3A	6-1	TGL2 installed	TLM812SCUDG
125	14	6	20	8	24	28	Combination Flush/Surface	Top Bottom	18	6-2/0	Included ¹⁰	TLM1212CCU

Note: TLM units convertible to main breaker

This table continued on next page

PowerMark Gold single phase, three wire, 120/240 VAC load centers

Main lugs factory installed

Indoor (NEMA 1) Enclosure (continued)

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
125	16	8	16	6	24	32	Combination Flush/Surface	Top Bottom	4	6-2/0	TGK12 or TGK24 (order separately)	TLM1612CCU
125	16	8	16	6	24	32	Combination Flush/Surface	Top Bottom	4	6-2/0	TGK12 and TLK20 installed	TLM1612CCUG
125	24	12	0	0	24	48	Combination Flush/Surface	Top Bottom	7	6-2/0	TGK24 or TGK32 (order separately)	TLM2412CCU
125	24	12	0	0	24	48	White Combo Flush/Surface	Top Bottom	7	6-2/0	TGK24 or TGK32 (order separately)	TLM2412CCUW
125	24	12	0	0	24	48	Combination Flush/Surface	Top Bottom	7	6-2/0	TGK24 and TLK20 installed	TLM2412CCUG
200	16	8	32	14	32	32	Combination Flush/Surface	Top Bottom	7	6-250	TGK32 (order separately)	TLM1620CCU
200	16	8	32	14	32	32	Combination Flush/Surface	Top Bottom	7	6-250	TGK32 installed	TLM1620CCUG
200	20	10	40	18	40	40	Combination Flush/Surface	Top Bottom	8	6-250	TGK32 (order separately)	TLM2020CCU
200	20	10	40	18	40	40	Combination Flush/Surface	Top Bottom	8	6-250	TGK42 installed	TLM2020CCUG
200	24	12	36	18	42	48	Combination Flush/Surface	Top Bottom	9	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TLM2420C42
200	32	16	20	8	42	64	Combination Flush/Surface	Top Bottom	11	1-250 (Cu), 2/0-250 (Al)	TGK32 and TLK20 (order separately)	TLM3220C42
200	32	16	16	6	40	64	Combination Flush/Surface	Top Bottom	11	6-250	TGK32 (order separately)	TLM3220CCU
200	32	16	16	6	40	64	White Combo Flush/Surface	Top Bottom	11	6-250	TGK32 (order separately)	TLM3220CCUW
200	32	16	16	6	40	64	Combination Flush/Surface	Top Bottom	11	6-250	TGK32 and TNLK250 installed	TLM3220CCUG
200	32	16	64	30	64	64	Combination Flush/Surface	Top Bottom	19	6-250	(2) TGK32 and (1) TLK250 installed	TLM3220C64G
200	40	20	0	0	40	80	Combination Flush/Surface	Top Bottom	13	6-250	TGK42 (order separately)	TLM4020CCU
200	40	20	0	0	40	80	Combination Flush/Surface	Top Bottom	13	6-250	TGK42 and TNLK250 installed	TLM4020CCUG
200	40	20	80	38	80	80	Combination Flush/Surface	Top Bottom	20	6-250	(2) TGK32 and (1) TLK250 installed	TLM4020C80G
200	42	20	0	0	42	84	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TLM4220CCU
225	42	20	0	0	42	84	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TLM4222CCU
225	42	20	0	0	42	84	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 and TNLK250 installed	TLM4222CCUG

Note: TLM units convertible to main breaker

PowerMark Gold single phase, three wire, 120/240 VAC load centers

Main lugs factory installed

Outdoor (NEMA 3R) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed ¹ Type ¹	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
40	2	1	4	1	4	4	-	Top	R1A	14-4	TGK4 (order separately)	TL240RCU
70	2	1	4	1	4	4	-	Top	R1A	6-3	TGK4 (order separately)	TL270RCU
125	4	2	8	3	8	8	-	Top	R1A	1-2/0	TGL1 (order separately)	TL412R1
125	4	2	8	3	8	8	-	Top	R1A	1-2/0	TGL1 installed	TL412RT1
125	4	2	8	3	8	8	-	Top	R41	1-2/0	TGL1 (order separately)	TL412R2
125	4	2	8	3	8	8	Thermoplastic Front	Top	R1	1-2/0	TGL1 (order separately)	TPL412R
125	4	2	8	3	8	8	Thermoplastic Front	Top	R1	1-2/0	TGL1 installed	TPL412RT
125	6	2	12	4	12	12	-	Top	R2A	6-1	TGL2 (order separately)	TLM612RCU
125	8	4	16	8	16	16	-	Top	R2A	6-1	TGL2 (order separately)	TLM812RCU
125	8	4	16	8	16	16	-	Top	R3A	6-1	TGL2 (order separately)	TLM812RCU2
125	24	12	0	0	24	48	-	Top Bottom	R4A	6-2/0	TGK24 or TGK32 (order separately)	TLM2412RCU
150	24	12	12	4	30	48	-	Top Bottom	R6A	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TLM2415RCU
200	12	6	24	10	24	24	-	Top	R5A	6-250	TGK24 (order separately)	TLM1220RCU
200	16	8	32	14	32	32	-	Top	R5A	6-250	TGK32 (order separately)	TLM1620RCU
200	20	10	40	18	40	40	-	Top	R6A	6-250	TGK24 or TGK42 (order separately)	TLM2020RCU
200	32	16	16	6	40	64	-	Top Bottom	R7A	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TLM3220RCU
200	40	20	0	0	40	80	-	Top Bottom	R8A	6-250	TGK42 (order separately)	TLM4020RCU
225	42	20	0	0	42	84	-	Top Bottom	R8A	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TLM4222RCU

Note: TLM units convertible to main breaker

PowerMark Gold single phase, three wire, 120/240 VAC load centers

Main breaker factory installed



TM2020CCU

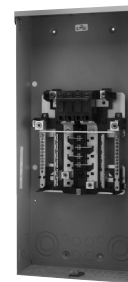
Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
100	12	5	20	8	22	24	Combination Flush/Surface Front	Top Bottom	18	4-1/0	Included	TM1210CCU
100	24	12	0	0	24	48	Combination Flush/Surface Front	Top Bottom	7	1-2/0	TGK24 or TGK32; and TLK20 (order separately)	TM2410CCU
100	20	10	0	0	20	40	Combination Flush/Surface Front	Top Bottom	6	4-1/0	TGK24 (order separately)	TM2010CCU
100	32	16	0	0	32	64	Combination Flush/Surface Front	Top Bottom	11	4-1/0	TGK32 (order separately)	TM3210CCU
125	12	5	20	8	22	24	Combination Flush/Surface Front	Top Bottom	18	1-2/0	Included	TM1212CCU
125	24	12	0	0	24	48	Combination Flush/Surface Front	Top Bottom	7	1-2/0	TGK24 (order separately)	TM2412CCU
125	16	8	16	6	24	32	Combination Flush/Surface Front	Top Bottom	4	1-2/0	TGK12 or TGK24 (order separately)	TM1612CCU
125	16	8	16	6	24	32	Combination Flush/Surface Front	Top Bottom	4	1-2/0	TGK24 installed	TM1612CCUG
150	16	8	32	14	32	32	Combination Flush/Surface Front	Top Bottom	7	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TM1615CCU

This table continued on next page

PowerMark Gold single phase, three wire, 120/240 VAC load centers

Main breaker factory installed



TM820RCUFL

Indoor (NEMA 1) Enclosure (continued)

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
150	32	16	0	0	32	64	Combination Flush/Surface	Top Bottom	11	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM3215CCU
150	24	12	36	18	42	48	Combination Flush/Surface	Top Bottom	9	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TM2415C42
150	32	16	20	10	42	64	Combination Flush/Surface	Top Bottom	11	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 and TLK20 (order separately)	TM3215C42
200	20	10	40	18	40	40	Combination Flush/Surface	Top Bottom	8	1-250 (Cu) 2/0-250 (Al)	TGK32 (order separately)	TM2020CCU
200	20	10	40	18	40	40	Combination Flush/Surface	Top Bottom	8	1-250 (Cu) 2/0-250 (Al)	TGK32 installed	TM2020CCUG
200	32	16	16	6	40	64	Combination Flush/Surface	Top Bottom	11	1-250 (Cu) 2/0-250 (Al)	TGK32 (order separately)	TM3220CCU
200	40	20	0	0	40	80	Combination Flush/Surface	Top Bottom	13	1-250 (Cu) 2/0-250 (Al)	TGK42 (order separately)	TM4020CCU
200	32	16	20	8	42	64	Combination Flush/Surface	Top Bottom	11	1-250 (Cu) 2/0-250 (Al)	TGK32 and TLK20 (order separately)	TM3220C42
200	42	20	0	0	42	84	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4220CCU
200	32	16	64	30	64	64	Combination Flush/Surface	Top Bottom	19	1-250 (Cu) 2/0-250 (Al)	TGK32 (order separately)	TM3220C64
200	40	20	80	38	80	80	Combination Flush/Surface	Top Bottom	20	1-250 (Cu) 2/0-250 (Al)	TGK42 (order separately)	TM4020C80
225	42	20	0	0	42	84	Combination Flush/Surface	Top Bottom	14	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4222CCU

Outdoor (NEMA 3R) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
100	12	5	20	8	22	24	Top	R3A	4-1/0	⁵	TM1210RCU
100	20	10	0	0	30	40	Top	R4	4-1/0	TGK24 (order separately)	TM2010RCU
125	12	5	20	8	22	24	Top	R3A	1-2/0	⁵	TM1212RCU
125	24	12	0	0	24	48	Top	R4	1-2/0	TGK24 (order separately)	TM2412RCU
150	8	4	16	6	16	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM815RCUFL
150	16	8	32	14	32	32	Top	R5	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately) TGK32 (order separately)	TM1615RCU
200	8	4	16	6	16	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK24 or TGK32 (order separately)	TM820RCUFL
200	20	10	40	18	40	40	Top	R6	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately) TGK42 (order separately)	TM2020RCU
200	32	16	16	6	40	64	Top	R7	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM3220RCU
200	40	20	0	0	40	80	Top	R8	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM4020RCU
225	8	4	16	6	16	16	Top	R5	1-250 (Cu), 2/0-250 (Al)	TGK24 (order separately)	TM822RCUFL
225	42	20	0	0	42	84	Top	R8	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM4222RCU

⁵ Load center includes a factory installed ground bar and add a lug.

Meter socket load centers

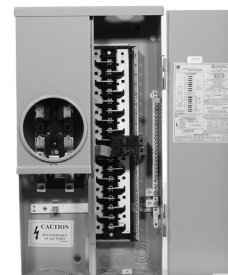
Bonded neutrals



TSM420CSCU

Ring Type Feed-Thru - Main Breaker

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Enclosure Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
200	4	2	8	3	8	8	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL	TSM420CSCU
200	8	4	16	6	16	16	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL	TSM820CSCU
200	8	4	16	6	16	16	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL	TSM820CSFL



TSM1610CSCU

Ring Type - Side by Side - Main Breaker - OH/UG

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Enclosure Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
200	20	10	40	18	40	40	Outdoor	Semi-Flush	None	OH/UG	UL/EUSERC	TSM2020CFCU
100	16	8	32	14	32	32	Outdoor	Surface	None	OH/UG	UL/EUSERC	TSM1610CSCU
200	20	10	40	18	40	40	Outdoor	Surface	None	OH/UG	UL/EUSERC	TSM2020CSCU
100	16	8	32	14	32	32	Outdoor	Semi-Flush	None	OH/UG	UL/EUSERC	TSM1610CFCU

Meter main - Factory installed mains

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Enclosure Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
200	0	0	0	0	0	Outdoor (NEMA 3R)	Surface ²	None	OH/UG	UL	TM20RMC

Meter socket load centers

Bonded neutrals



TSMB1212CSCU

Xcel Energy - Ringless with bypass

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Enclosure Type	Main Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
200	4	2	8	3	8	8	Outdoor (NEMA 3R)	MB	Surface	Horn Bypass	OH/UG	Xcel/UL	TSMR420CSCU
200	20	10	40	18	40	40	Outdoor (NEMA 3R)	MB	Surface	Lever Bypass	OH/UG	Xcel/UL	TSMB2020CSCU



TSMR415CSCUGP



TSMR420CSFLFMG

Georgia Power - Ringless, main breaker

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Enclosure Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
150	–	–	–	–	–	–	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/GP	TSMR015CSGP
200	–	–	–	–	–	–	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/GP	TSMR020CSGP
150	4	2	8	3	8	8	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/GP	TSMR415CSCUGP
200	4	2	8	3	8	8	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/GP	TSMR420CSCUGP

Florida Meter Group - MSLC ringless, main breaker

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Enclosure Type	Front Type	Bypass Type	UL Incoming	Agency Certification	Ordering Code
150	4	2	8	3	8	8	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/FMG	TSMR415CSFLFMG
200	4	2	8	3	8	8	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/FMG	TSMR420CSFLFMG
150	8	4	16	6	16	16	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/FMG	TSMR815CSFLFMG
200	8	4	16	6	16	16	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/FMG	TSMR820CSFLFMG
200	20	4	40	18	40	40	Outdoor (NEMA 3R)	Surface	None	OH/UG	UL/FMG	TSMR2020CSCUFMG

Meter socket load centers

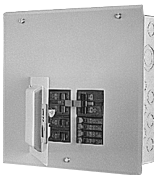
Bonded neutrals

Class 320 (all product numbers are outdoor NEMA 3R enclosure type)

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Bypass Type	UL Incoming	Agency Certification	Secondary Main Factory Installed	Main type	Type of Secondary Main	Ordering Code
300	8	4	16	8	16	16	Semiflush	No	OH/UG	Georgia Power	Yes	Formula A2	Formula A2	TSDR830CFCUGP
400	8	4	16	6	16	16	Surface	Lever Bypass	UG	UL FMG	No	Formula A2	Formula A2	TSDR840UFCU
400	8	4	16	8	16	16	Semiflush	No	OH/UG	Georgia Power	Yes	Formula A2	Formula A2	TSDR840CFCUGP

PowerMark Gold generator panels

Two interlocked main breakers factory installed



TM830FCUGEN

Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
60	4	2	8	4	8	8	Flush Front	Top Bottom	3A	6-1	TGK12 included	TM860FCUGEN
60	4	2	8	4	8	8	Surface Front	Top Bottom	3A	6-1	TGK12 included	TM860SCUGEN

Outdoor (NEMA 3R) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	1 Pole, 1/2" Spaces	2 Pole, 1/2" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
60	4	2	8	4	8	8	Top	R2A	6-1	TGK12 included	TM860RCUGEN

PowerMark Plus™, four-wire, 208Y/120 VAC load centers

Main lugs factory installed



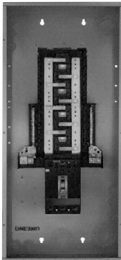
TL18415C

Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	3 Pole, 1" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
125	12	6	4	12	24	Combination Flush/Surface Front	Top Bottom	4	6-2/0	TGK12 (order separately) TGK24 (order separately)	TL12412C
150	18	8	6	18	36	Combination Flush/Surface Front	Top Bottom	7	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately) TGK32 (order separately)	TL18415C
150	24	12	8	24	48	Combination Flush/Surface Front	Top Bottom	7	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 (order separately) TGK32 (order separately)	TL24415C
200	18	8	6	18	36	Combination Flush/Surface Front	Top Bottom	8	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TL18420C
200	30	14	10	30	60	Combination Flush/Surface Front	Top Bottom	11	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TL30420C
200	42	20	14	42	84	Combination Flush/Surface Front	Top Bottom	13	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TL42420C
225	30	14	10	30	60	Combination Flush/Surface Front	Top Bottom	15	1-300 (Cu), 2/0-300 (Al)	(2) TGL2 (order separately)	TL30422C
225	42	20	14	42	84	Combination Flush/Surface Front	Top Bottom	15	1-300 (Cu), 2/0-300 (Al)	(2) TGL2 (order separately)	TL42422C

PowerMark Plus™, four-wire, 208Y/120 VAC load centers

Main lugs factory installed



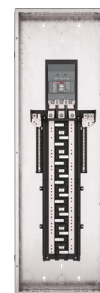
TM24420CB

Outdoor (NEMA 3R) Enclosure

Main Ampere Rating	1 Pole, 1” Spaces	2 Pole, 1” Spaces	3 Pole, 1” Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
125	12	6	4	12	24	Top	R3	6-2/0	TGK12 or TGK24 (order separately)	TL12412R
150	18	8	6	18	36	Top	R4	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TL18415R
150	24	12	8	24	48	Top	R4	1-3/0 (Cu), 2/0-3/0 (Al)	TGK24 or TGK32 (order separately)	TL24415R
200	18	8	6	18	36	Top	R4	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TL18420R
200	30	14	10	30	60	Top	R6	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TL30420R
200	42	20	14	42	84	Top	R8	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TL42420R
225	42	20	14	42	84	Top	R8	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TL42422R

PowerMark Plus™, four-wire, 208Y/120 VAC load centers

Main breaker factory installed



TM42420C

Indoor (NEMA 1) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	3 Pole, 1" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Front Type	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
100	12	6	4	12	24	Combination Flush/Surface Front	Top Bottom	6	6-1/0 (Cu), 4-1/0 (Al)	TGK12 or TGK24 (order separately)	TM12410C
100	18	8	6	18	36	Combination Flush/Surface Front	Top Bottom	6	6-1/0 (Cu), 4-1/0 (Al)	TGK24 or TGK32 (order separately)	TM18410C
125	30	14	10	30	60	Combination Flush/Surface Front	Top	12	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM30412C
150	24	12	8	24	48	Combination Flush/Surface Front	Top	12	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM24415C
150	30	14	10	30	60	Combination Flush/Surface Front	Top	12	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM30415C
150	42	20	14	42	84	Combination Flush/Surface Front	Top	15	1-3/0 (Cu), 2/0-3/0 (Al)	TGK42 (order separately)	TM42415C
200	24	12	8	24	48	Combination Flush/Surface Front	Top	12	1-300 (Cu), 2/0-300 (Al)	TGK32 (order separately)	TM24420C
200	30	14	10	30	60	Combination Flush/Surface Front	Top	13	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM30420C
200	42	20	14	42	84	Combination Flush/Surface Front	Top	14	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM42420C
200	42	20	14	42	84	Combination Flush/Surface Front	Bottom	14	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM42420CB
225	42	20	14	42	84	Combination Flush/Surface Front	Top	15A	1-300 (Cu), 2/0-300 (Al)	(2) TGL2 (order separately)	TM42422C



TM30420R

Outdoor (NEMA 3R) Enclosure

Main Ampere Rating	1 Pole, 1" Spaces	2 Pole, 1" Spaces	3 Pole, 1" Spaces	Total 1-pole Spaces	Max Single Pole Circuits	Feed Type	Box Number	Main Wire Size (AWG/kcmil) Cu-Al	Equipment Ground Kit	Ordering Code
100	18	8	6	18	36	Top	R4	6-1/0 (Cu), 4-1/0 (Al)	TGK24 or TGK32 (order separately)	TM18410R
125	30	14	10	30	60	Top	R7	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM30412R
150	24	12	8	24	48	Top	R6	1-3/0 (Cu), 2/0-3/0 (Al)	TGK32 (order separately)	TM24415R
200	30	14	10	30	60	Top	12A	1-250 (Cu), 2/0-250 (Al)	TGK32 (order separately)	TM30420R
200	42	20	14	42	84	Top	R8	1-250 (Cu), 2/0-250 (Al)	TGK42 (order separately)	TM42420R
225	42	20	14	42	84	Top	16A	1-300 (Cu), 2/0-300 (Al)	TGK42 (order separately)	TM42422R

Load center circuit breakers

Ordering code construction

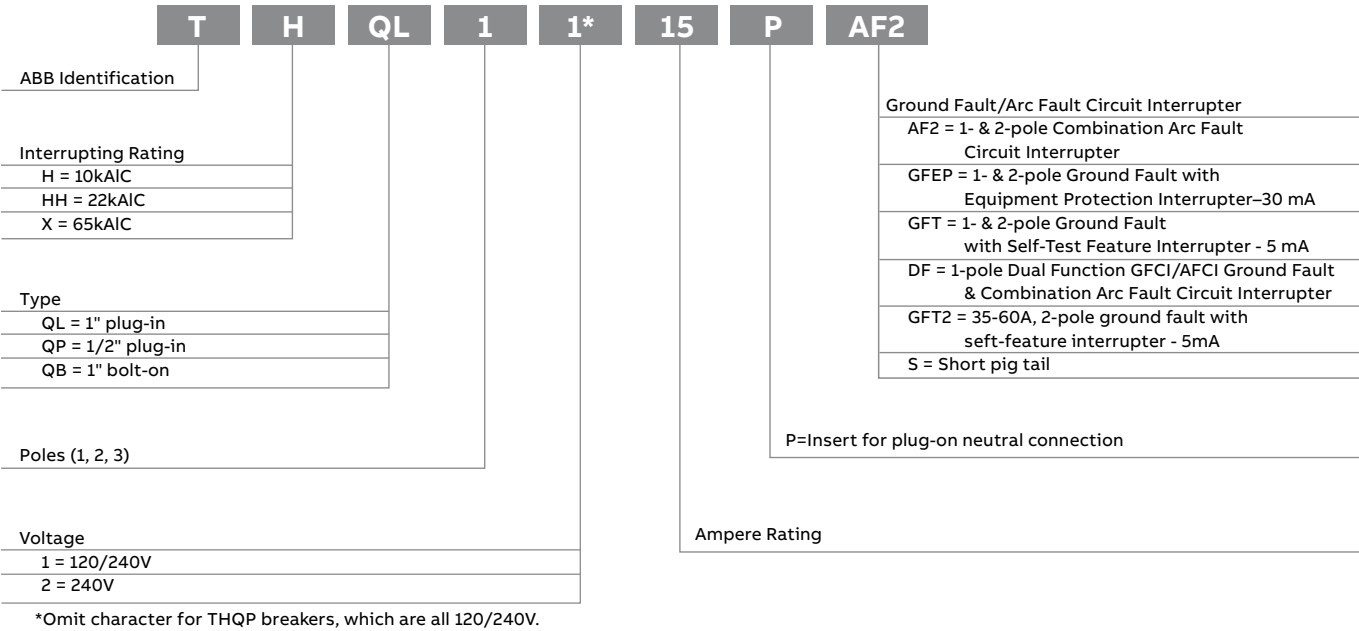
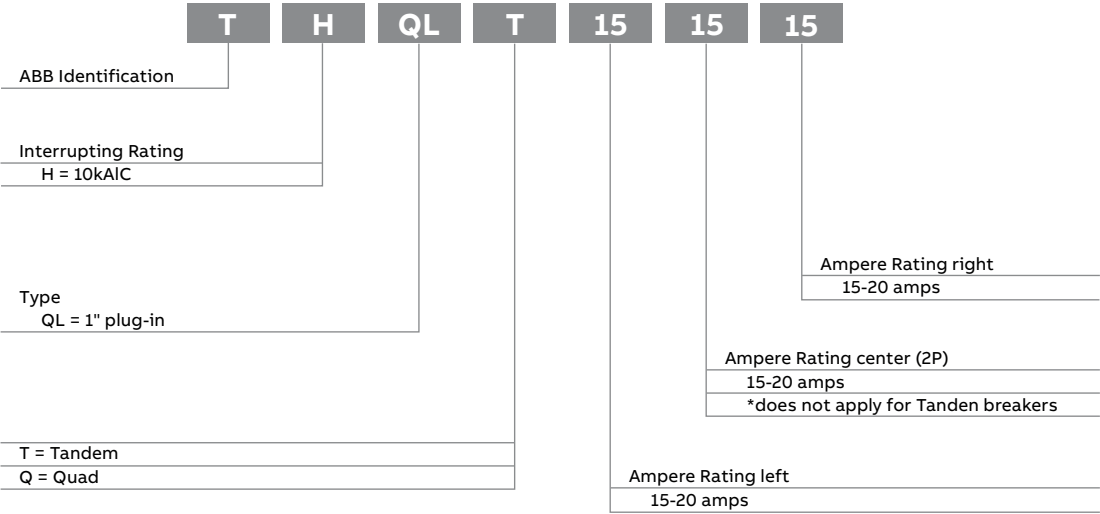


Figure 1:



Load center circuit breakers

Q-Line plug-in residential circuit breakers



THQL2140



THQL32015



THQP130



THQP230



THQL1120

120/240 Vac Ampere Rating	10,000AIC			22,000AIC		65,000AIC
	Type THQP 1/2-inch Module	Type THQL 1-inch Module		Type THHQL 1-inch Module		Type TXQL 1-inch Module
	120/240 Vac Ordering code	120/240 Vac Ordering code	240 Vac Ordering code	120/240 Vac Ordering code	240 Vac Ordering code	120/240 Vac Ordering code
Single Pole¹						
35	–	THQL1135	–	–	–	–
40	THQP140	THQL1140	–	–	–	–
50	THQP150	THQL1150	–	–	–	–
Std. Pkg.	5 cartons of 20	5 cartons of 10		5 cartons of 10		5 cartons of 10
Two-Pole²: Incorporates Internal Common Trip Bar						
15	THQP215	THQL2115	–	THHQL2115	–	–
20	THQP220	THQL2120	THQL22020	THHQL2120	–	–
25	THQP225	THQL2125	–	THHQL2125	–	–
30	THQP230	THQL2130	THQL22030	THHQL2130	–	–
35	THQP235	THQL2135	–	THHQL2135	–	–
40	THQP240	THQL2140	THQL22040	THHQL2140	–	–
45	THQP245	THQL2145	–	–	–	–
50	THQP250	THQL2150	THQL22050	THHQL2150	–	–
60	–	THQL2160	THQL22060	THHQL2160	–	–
70	–	THQL2170	–	THHQL2170	–	–
80	–	THQL2180	THQL22080	THHQL2180	–	–
90	–	THQL2190	–	–	–	–
100	–	THQL21100	THQL22100	THHQL21100	–	–
110	–	THQL21110	–	–	–	–
125	–	THQL21125	–	THHQL21125	–	–
Std. Pkg.	5 cartons of 5	5 cartons of 5	5 cartons of 5	5 cartons of 5	5 cartons of 5	5 cartons of 5
Three-Pole: Incorporates Internal Common Trip Bar						
15	–	–	THQL32015	–	–	–
20	–	–	THQL32020	–	THHQL32020	–
25	–	–	THQL32025	–	–	–
30	–	–	THQL32030	–	THHQL32030	–
35	–	–	THQL32035	–	–	–
40	–	–	THQL32040	–	–	–
45	–	–	THQL32045	–	–	–
50	–	–	THQL32050	–	–	–
60	–	–	THQL32060	–	THHQL32060	–
70	–	–	THQL32070	–	–	–
80	–	–	THQL32080	–	–	–
90	–	–	THQL32090	–	THHQL32090	–
100	–	–	THQL32100	–	THHQL32100	–
Std. Pkg.			5 cartons of 3		5 cartons of 3	5 cartons of 3

Load center circuit breakers

Q-Line plug-in residential circuit breakers

- Features
- Rated for use on Single Phase 120/240 VAC systems
 - 60°C/75°C conductor rating
 - HACR and SWD rating
 - UL Listed (Molded case circuit breakers no. 489)
 - Protection up to 10,000 amps of available fault current

Tandem and Quad Circuit Breaker, UL 489

				1" Space used	2" Space used
				(2) 1 Poles, 120/240 Vac	(2) 1 Poles and (1) 2 Pole, 120/240 Vac
	Ampere Rating			Ordering Code	Ordering Code
	Right	Center	Left		
10,000 AIC	15	-	15	THQLT1515	-
	20	-	20	THQLT2020	-
	15	-	20	THQLT1520	-
	15	15	15	-	THQLQ151515
	15	20	15	-	THQLQ152015
	15	30	15	-	THQLQ153015
	15	40	15	-	THQLQ154015
	20	15	20	-	THQLQ201520
	20	20	20	-	THQLQ202020
	20	30	20	-	THQLQ203020
	20	40	20	-	THQLQ204020
	20	30	15	-	THQLQ203015

Load center circuit breakers

Special purpose circuit breakers

Features

- 60°C / 75°C conductor rating
- Box type terminals

- Quick-make, quick-break
- Multi-pole circuit breakers incorporate internal common trip



THQL1115DF



THQL1115PDF



THQL1115GFT



THQL1115GFTS

Arc fault circuit interrupter (AFCI circuit breaker), UL1699

	Ampere rating	1-pole, 120/240 volts ac ¹	1-pole, 120/240 volts ac	1-pole, 120/240 volts ac
		Ordering code	Ordering code	Ordering code
		Long pig tail	Short pig tail	Plug-on neutral
10,000 AIC				
	15	THQL1115AF2	THQL1115AF2S	THQL1115PAF2
	20	THQL1120AF2	THQL1120AF2S	THQL1120PAF2
22,000 AIC				
	15	THHQL1115AF2	–	THHQL1115PAF2
	20	THHQL1120AF2	–	THHQL1120PAF2
Std. pkg.		10 cartons of 1	–	

¹ Combination AFCI compliant with 2008 NEC™ and later

² For 2-Pole shared neutral applications use two 1-pole circuit breakers with a handle tie. See DET-719 for more details on our Arc Fault products.

Dual function (DFCI/AFCI) ground fault & combination arc fault circuit breaker

	Ampere rating	1-pole, 120/240 volts ac	1-pole, 120/240 volts ac	1-pole, 120/240 volts ac
		Ordering code	Ordering code	Ordering code
		Long pig tail	Short pig tail	Plug-on neutral
10,000 AIC				
	15	THQL1115DF	THQL1115DFS	THQL1115PDF
	20	THQL1120DF	THQL1120DFS	THQL1120PDF
22,000 AIC				
	15	THHQL1115DF	–	THHQL1115PDF
	20	THHQL1120DF	–	THHQL1120PDF
Std. pkg.		10 cartons of 1	–	

Ground fault with self-test feature circuit breaker, UL943 ed5 (5ma)

	Ampere rating	1-pole, 120 volts ac	1-pole, 120 volts ac	1-pole, 120 volts ac	2-pole, 120/240 volts ac	2-pole, 120/240 volts ac
		Ordering code	Ordering code	Ordering code	Ordering code	Ordering code
		Long pig tail	Short pig tail	Plug-on neutral	Long pig tail	Plug-on neutral
10,000 AIC						
	15	THQL1115GFT	THQL1115GFTS	THQL1115PGFT	THQL2115GFT	THQL2115PGFT
	20	THQL1120GFT	THQL1120GFTS	THQL1120PGFT	THQL2120GFT	THQL2120PGFT
	25	THQL1125GFT	–	THQL1125PGFT	THQL2125GFT	THQL2125PGFT
	30	THQL1130GFT	–	THQL1130PGFT	THQL2130GFT	THQL2130PGFT
	35	–	–	–	THQL2135GFT2	–
	40	–	–	–	THQL2140GFT2	–
	45	–	–	–	THQL2145GFT2	–
	50	–	–	–	THQL2150GFT2	–
	60	–	–	–	THQL2160GFT2	–
22,000 AIC						
	15	THHQL1115GFT	–	THHQL1115PGFT	THHQL2115GFT	THHQL2115PGFT
	20	THHQL1120GFT	–	THHQL1120PGFT	THHQL2120GFT	THHQL2120PGFT
	25	THHQL1125GFT	–	THHQL1125PGFT	THHQL2125GFT	THHQL2125PGFT
	30	THHQL1130GFT	–	THHQL1130PGFT	THHQL2130GFT	THHQL2130PGFT
Std. pkg.		10 cartons of 1	–	–	–	–

Load center circuit breakers

Special purpose circuit breakers



THQL2115GFEP

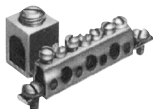


THQL21WY30

Ground fault with equipment protection circuit breaker, UL 1053 (30 ma)			
	Ampere rating	1-pole, 120 volts ac Ordering code	2-pole, 120/240 volts ac Ordering code
10,000 AIC			
	15	THQL1115GFEP	THQL2115GFEP
	20	THQL1120GFEP	THQL2120GFEP
	30	THQL1130GFEP	THQL2130GFEP
22,000 AIC			
	15	-	THHQL2115GFEP
	20	-	THHQL2120GFEP
Std. pkg.		10 cartons of 1	10 cartons of 1

Switching neutral circuit breakers UL Listed. 10kAIC RMS symmetrical. Standard 1- or 2-pole automatic circuit breaker plus one fully-rated, non-automatic pole.			
	Ampere rating	1-pole plus switching neutral 120/240 volts ac Ordering code	2-pole plus switching neutral 120/240 volts ac Ordering code
10,000 AIC			
	15	THQL21WY15	THQL31WY15
	20	THQL21WY20	THQL31WY20
	25	THQL21WY25	THQL31WY25
	30	THQL21WY30	THQL31WY30
Std. pkg.		5 cartons of 5	5 cartons of 3

Load center field installed accessories



PowerMark Plus™ Equipment Ground Kits

Description	Standard Package Quantity	Ordering Code
(4) 14-8Cu/12-8AL, (3) 14-4Cu/6-4AL	20	TGL1
(11) 14-8Cu/12-8AL, (3) 14-4Cu/6-4AL	20	TGL2
(7) 14-8Cu/12-8AL, (3) 14-4Cu/6-4AL, (2) 14-4Cu/12-4AL, (1) 14-2Cu/AL	20	TGL8
(1) 6-2/0Cu/Al Number of Terminals, Equipment Ground Kits	20	TGL20
(3) 10-1/0 Cu/Al Number of Terminals for 400 and 600 Amp	1	TNG3
6) 10-1/0 Cu/Al Number of Terminals for 400 and 600 Amp	1	TNG6

PowerMark Gold Equipment Ground and Isolated Ground Bar Kits

Description	Wire Range	Standard Package Quantity	Ordering Code
4-hole Ground	(1) 14-4	1	TGK4
8-hole Ground	(1) 14-4	1	TGK8
12-hole Ground	(1) 14-4	1	TGK12
22-hole Ground	(1) 14-4	1	TGK24
32-hole Ground	(1) 14-4	1	TGK32
42-hole Ground	(1) 14-4	1	TGK42

Load center field installed accessories



PowerMark Gold Neutral Kits			
Description	Wire Range	Standard Package Quantity	Ordering Code
PowerMark Gold Neutral Kit - Mounted on top of neutral only	6-2/0	1	TNLK20
PowerMark Gold Neutral Kit - Mounted on top of neutral only	6-250	1	TNLK250



PowerMark Gold Neutral/Ground Lug Kits			
Mounted on any neutral or ground position by removing the termination screw			
Description	Wire Range	Standard Package Quantity	Ordering Code
Neutral/Ground Lug Kit	6-2/0	1	TLK20
Neutral/Ground Lug Kit	6-250	1	TLK250



Isolated Ground Bus Bars Equipment Ground Kit		
Description	Standard Package Quantity	Ordering Code
Isolated Ground Bar Kit (order with TKG Equipment Ground Kits)	1	TGKIS



Subfeed Lug Kits		
Description	Standard Package Quantity	Ordering Code
125A 2 Pole Plug-in	1	THLK2125
150A 2 Pole Plug-in - For use with PowerMark Gold only	1	THLK2150
200A 2 Pole Plug-in - For use with PowerMark Gold only	1	THLK2200
225A 3 Pole Plug-in - For use with 3 phase only	1	THLK3225



Load center field installed accessories



PowerMark Plus™ Main Lug Kits		
Description	Wire Range (Cu/Al)	Ordering Code
200 Amp PowerMark Plus™ Replacement Main Lug kit	1-250	THLK200

PowerMark Gold Main Lug Kits		
Description	Wire Range (Cu/Al)	Ordering Code
125 Amp PowerMark Gold Replacement Main Lug kit	6-2/0	TMLK125
200 Amp PowerMark Gold Replacement Main Lug kit	6-250	TMLK200

For replacement of main lugs on 125 amp load centers; TLM load centers include main lugs.

Front Filler Plates		
Description	Standard Package Quantity	Ordering Code
1/2" Front Filler Plate	100	TFH
1" Front Filler Plate	50	TQLFP1

Covers 1/2" rectangular breaker knockouts
Covers 1" rectangular breaker knockouts

Door Handle		
Description	Standard Package Quantity	Ordering Code
Replacement Door Handle Universal	1	TRL22

Load center field installed accessories



THQLRK



THQLRK2



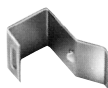
THQLRK1



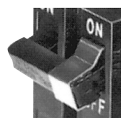
THQLRK3



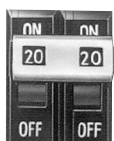
THQLRK4



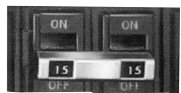
THL103



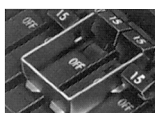
THT1



THT104



THT2



TQHT1



PowerMark Gold Main Breaker Retainers

- Includes service barriers for use with THQL main
- Main Breaker Retainer Kits are UL listed (Panelboards No. 67)

Description	Breaker Type	Ordering Code
For use on PowerMark Plus™ load centers with THQL Breakers 225A max	THQL	THQLRK
For use with 12 - 42 circuit PowerMark Gold load centers with THQL Breakers	THQL	THQLRK1
For use with 6 - 8 circuit PowerMark Gold load centers with THQL Breakers	THQL	THQLRK2
For use with TM/TLM1212CCU Mod 2 current model	THQL	THQLRK3
For use with 6 - 42 circuit PowerMark Gold load centers with THQL Breakers. Similar to THQLRK1 but it does not take up a breaker space.	THQL	THQLRK4

For main lug load centers utilizing a back fed branch breaker as a main

Handle Locks - Padlocking

Description	Breaker Type	Ordering Code
THQP Padlocking Handle Lock	THQP	TQPPL
THQL Padlocking Handle Lock	THQL	THP100
THQL AF, GF, DF Padlocking Handle Lock	THQL AF, DF, GF	THP100E

Snap on handle lock
Padlock not included

Handle Locks - Non Padlocking

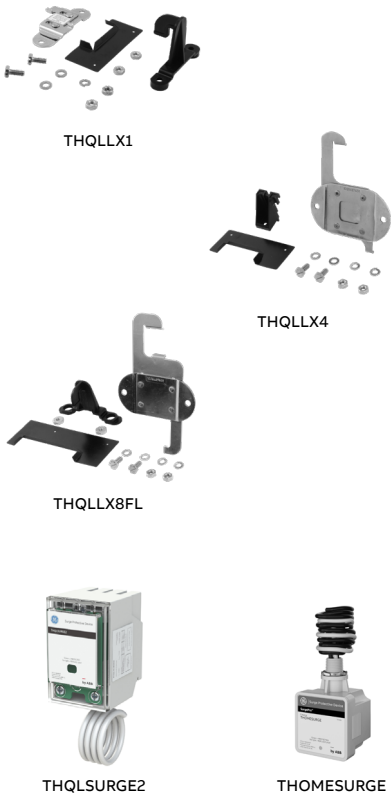
Description	Breaker Type	Ordering Code
THQP Non Padlocking Handle Lock	THQP	TQPL
THQL Non Padlocking Handle Lock	THQL	THL103

Snap on handle lock

Handle Ties

Description	Breaker Type	Ordering Code
Handle Ties for THQP Breakers - Solid Snap-on Trip Indicating	THQP	THT1
Handle Ties for THQP Breakers - For 2 THQPs separated by 2 side-by-side THQPs	THQP	THT2
Snap-on Handle Tie - Trip Indicating	TQB TQC TQL	TQHT1
Snap-on Handle Tie - Solid	TQB TQC TQL	THT104
Multiwire Branch Breaker Handle Tie Kits	TQB TQC TQL	TQ3HTK TQ4HTK

Load center field installed accessories



Load center hardware kits

Description	Standard Package Quantity	Ordering Code
Powermark Gold Hardware kit containing 20 front mounting screws	1	THDWRKIT

Generator Interlock Kit

Description	Standard Package Quantity	Ordering Code
Load Center Generator Interlock Kit	1	THQLLX1
MSLC Generator Interlock Kit	1	THQLLX4
MSLC Generator Interlock Kit	1	THQLLX8CU
MSLC Generator Interlock Kit	1	THQLLX8FL

Surge protectors, NEMA Type 1

Description	System voltage	Per phase surge rating	Short circuit rating	Nominal discharge rating	Ordering Code
SurgePro panel-mount	120/240 VAC	25 kA	100 kA	10 kA	THQLSURGE2
SurgePro externally mounted	120/240 VAC	3 kA	200 kA	10 kA	THOMESURGE

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2

RV power pedestals

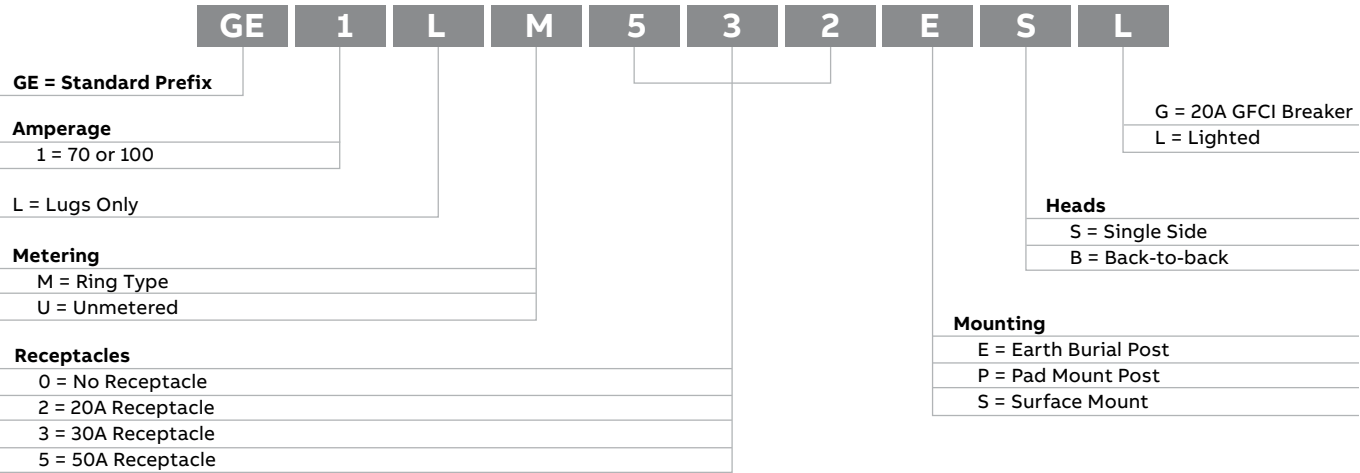


Section 2
RV power pedestals

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RV power pedestals
Ordering code construction



Unmetered
Earth Burial
Pedestal



Ring Type Metered
Pad Mount Post



Unmetered
Surface Mount

Reference only. For stocked items, see following pages.

RV power pedestals

Inventory

Unmetered Surface Mount

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
100	120/240	30A/20A GFCI	THQL1130, THQL1120	N/A	Single Side	No	1	GE1LU032SS
70	120/240	50A/20A GFCI	THQL2150, THQL1120	N/A	Single Side	No	2	GE1LU502SS
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	3	GE1LU532SS

Ring Type Metered Surface Mount

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
100	120/240	30A/20A GFCI	THQL1130, THQL1120	N/A	Single Side	No	2	GE1LM032SS
70	120/240	50A/20A GFCI	THQL2150, THQL1120	N/A	Single Side	No	2	GE1LM502SS
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	4	GE1LM532SS

Unmetered Pad Mount Post

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Back-to-Back	No	5	GE1LU532PB
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	6	GE1LU532PS
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	Yes	6	GE1LU532PSL

Ring Type Metered Pad Mount Post

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	7	GE1LM532PS

Unmetered Earth Burial Post

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
70	120/240	30A/20A GFCI	THQL1130, THQL1120	N/A	Single Side	No	6	GE1LU032ES
70	120/240	30A/20A GFCI	THQL1130, THQL1120	N/A	Single Side	Yes	6	GE1LU032ESL
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Back-to-Back	No	5	GE1LU532EB
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	6	GE1LU532ES

Ring Type Metered Earth Burial Post

Amps	Volts	Receptacles	Circuit Protection	Ground Fault Circuit Breaker	Head Type	Lighted	Wire Range Table	Ordering code
100	120/240	30A/20A GFCI	THQL1130, THQL1120	N/A	Single Side	No	7	GE1LM032ES
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Back-to-Back	No	8	GE1LM532EB
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	No	7	GE1LM532ES
100	120/240	50A/30A/20A GFCI	THQL2150, THQL1130, THQL1120	N/A	Single Side	Yes	7	GE1LM532ESL

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3

Safety switches and AC disconnects



Section 3
Safety switches and AC disconnects

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AC disconnects

NEMA type 3R



Steel disconnects N3R outdoor enclosure

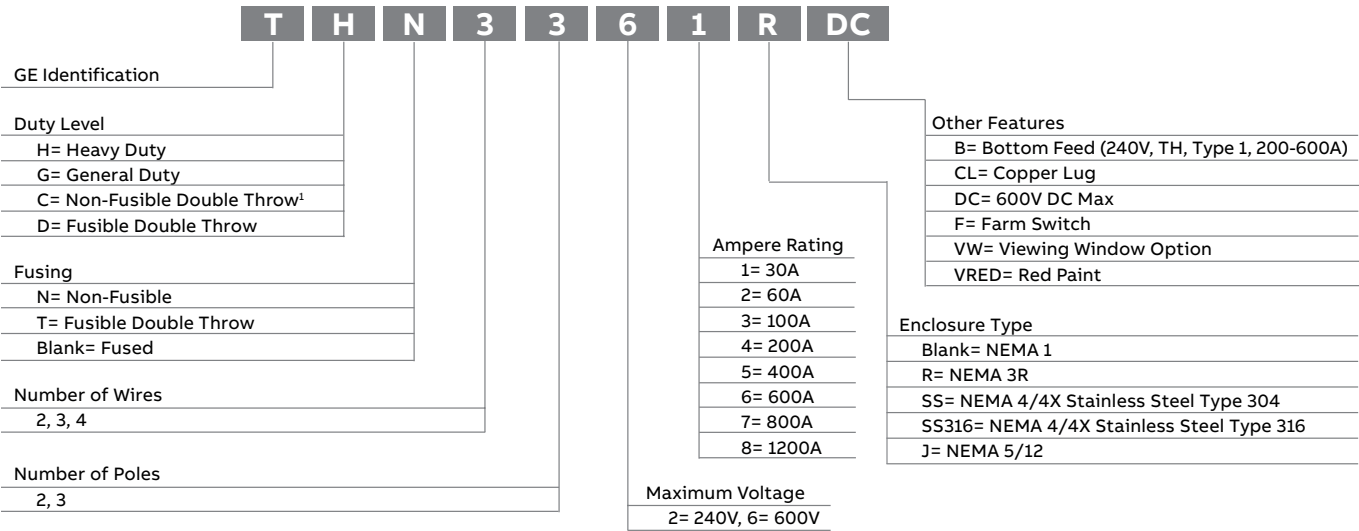
	Amperage Rating	Ordering code	HP Rating	Standard Fuse Class	15A GFCI Outlet	Height	Width	Depth	Standard Package	Ordering code Replacement puller
Fusible										
	30	TF30R	3	H, K1, K5, K9, RK1, RK5	–	7.5	5.19	2.5	6	TF302A
	60	TF60R	10	H, K1, K5, K9, RK1, RK5	–	9.25	5.19	2.5	6	TF602
Non-Fusible										
	60	TFN60R	10	–	Factory Installed	7.5	5.19	2.5	6	TFN652
	60	TFN60RGFR	10	–		7.13	5.5	5.19	6	TFN652
Non-Automatic										
	60	TNA60R1	10	–	Factory Installed	7.5	5.19	2.5	6	-
	60	TNA60RGFR	10	–		7.13	5.5	5.19	6	-

Plastic disconnects N3R outdoor enclosure

	Amperage Rating	Ordering code	HP Rating	Standard Fuse Class	Removable Closing cap	Height	Width	Depth	Standard Package	Ordering code Replacement puller
Fusible										
	30	TPF30R	3	H, K1, K5, K9, RK1, RK5	Yes	7.0	5.75	3.13	6	TF302A
	60	TPF60R	10	H	Yes	7.0	5.75	3.0	6	TF60
Non-Fusible										
	60	TPN60R	10	–	Yes	8.0	5.0	2.5	6	TFN652
	60	TPN60R1	10	–	No	7.5	5.19	5.19	6	TFN652

Spec-Setter™ 30-200 A, 800-1200 A safety switches

Ordering code construction



¹ 800A and 1200A non-double throw safety switches also use the C Duty Level nomenclature

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

All ABB Spec-Setter safety switches carry the following certifications:

- UL Listed and cUL Listed (UL98 Enclosed Switches/CSA-C22.2 No. 4-04)
- Federal Specification WS-865C
- NEMA Enclosed Safety Switch Standard KS1-2013
- Seismic Certified
- Service Entrance Rated (unless otherwise noted)

Horsepower rated

All Spec-Setter safety switches are horsepower rated with the following exceptions:

- 800A single throw type TC switches
- 1200A single and double throw type TC and TDT switches

Spec-Setter™ 400-600 A safety switches

Ordering code construction

T H F 3 3 6 5 A 1 V W										
Duty Level		Fusing		Number of Wires		Number of Poles		Maximum Voltage		Other Features
TH = Heavy Duty		F = Fused		2, 3, 4		2, 3		2 = 240V, 6 = 600V		VW = Viewing window
TG = General Duty		N = Non-Fusible								BL = Bottom feed, left handle
TD = Double Throw										CR = Red
TE = Emergency										CN = Canadian neutral
										Enclosure type:
										1 = NEMA 1 indoor
										R = NEMA 3R outdoor
										J = NEMA 12 dust tight
										SS/S = NEMA 4X stainless steel type 304
										X/SS316 = NEMA 4X stainless steel type 316
										D = NEMA 3R/12-dust tight with drip holes
										Series
										Ampere Rating
										5 = 400A
										6 = 600A

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

Applications for enclosures in non-hazardous locations

Provides a degree of protection against the following environmental conditions	Type of enclosure					
	1 ²	3R ²	4	4X	5	12
Incidental contact with enclosed equipment	X	X	X	X	X	X
Falling dirt	X	---	X	X	X	X
Falling liquids and light splashing	---	---	X	X	X	X
Windblown/circulating dust, lint, fibers and flyings ³	---	---	X	X	---	X
Settling airborne dust, lint fibers and flyings ³	---	---	X	X	X	X
Rain, snow and sleet ⁴	---	X	X	X	---	---
Hosedown and splashing water	---	---	X	X	---	---
Oil and coolant	---	---	---	---	---	X
Corrosive agents	---	---	---	X	---	---

² These enclosures may be ventilated.

³ These fibers and flyings are non-hazardous materials and are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or combustible flyings, see the National Electrical Code, Article 500.

⁴ External operating mechanisms are not required to be operable when the enclosure is ice covered.

Spec-Setter™ safety switches

General duty



Ordering code for general duty switches

			240V		
			2-pole/3-wire	3-pole/3-wire	3-pole/4-wire
Fused	NEMA 1	Amps			
		30	TG3221	---	TG4321
		60	TG3222	---	TG4322
		100	TG3223	---	TG4323
		200	TG3224	---	TG4324
		400	TGF3225A1	---	TGF4325A1
		600	TGF3226A1	---	TGF4326A1
	NEMA 3R	30	TG3221R	---	TG4321R
		60	TG3222R	---	TG4322R
		100	TG3223R	---	TG4323R
		200	TG3224R	---	TG4324R
		400	TGF3225AR	---	TGF4325AR
		600	TGF3226AR	---	---
Non-fusible	NEMA 1	30	---	TGN3321	---
		60	---	TGN3322	---
		100	---	TGN3323	---
		200	---	TGN3324	---
		400	---	TGN3325A1	---
	NEMA 3R	30	---	TGN3321R	---
		60	---	TGN3322R	---
		100	---	TGN3323R	---
		200	---	TGN3324R	---
		---	---	---	---



Ordering code for red switches

			240V	
			2-pole/3-wire	3-pole/4-wire
Fused	NEMA 1	Amps		
		30	TG3221VRED	TG4321VRED
		60	---	TG4322VRED

Spec-Setter™ safety switches

Heavy duty



Ordering code for fused heavy duty switches

		240V				600V		
	Amps	2-pole/2-wire	2-pole/3-wire	3-pole/3-wire	3-pole/4-wire	2-pole/2-wire	3-pole/3-wire	3-pole/4-wire
NEMA 1	30	---	TH3221	---	TH4321	---	TH3361	TH4361
	60	---	TH3222	---	TH4322	---	TH3362	TH4362
	100	---	TH3223	---	TH4323	---	TH3363	TH4363
	200	---	TH3224	---	TH4324	---	TH3364	TH4364
	400	---	THF3225A1	THF3325A1	THF4325A1	---	THF3365A1	---
	600	---	---	THF3326A1	THF4326A1	---	THF3366A1	---
	800	---	---	---	---	---	TC72367	---
NEMA 5/12	30	---	---	---	---	---	TH3361J	---
	60	---	---	---	---	---	TH3362J	---
	100	---	---	---	---	---	TH3363J	---
	200	---	---	---	---	---	TH3364J	---
	400	---	---	---	---	---	THF3365AJ	---
NEMA 3R	30	---	TH3221R	---	TH4321R	---	TH3361R	TH4361R
	60	---	TH3222R	---	TH4322R	---	TH3362R	TH4362R
	100	---	TH3223R	---	TH4323R	---	TH3363R	TH4363R
	200	---	TH3224R	---	TH4324R	---	TH3364R	TH4364R
	400	---	THF3225AR	THF3325AR	---	---	THF3365AR	---
	600	---	THF3226AR	THF3326AR	---	---	THF3366AR	---
	800	---	---	---	---	TC72267R	TC72367R	---
NEMA 4/4X, 304	30	TH2221SS	TH3221SS	TH3321SS	TH4321SS	---	TH3361SS	---
	60	TH2222SS	TH3222SS	TH3322SS	TH4322SS	---	TH3362SS	---
	100	---	TH3223SS	---	TH4323SS	---	TH3363SS	---
	200	---	TH3224SS	---	TH4324SS	---	TH3364SS	---
	400	---	---	---	---	---	THF3365AS	---
	600	---	---	---	---	---	THF3366AS	---
NEMA 4/4X, 316	30	---	---	---	---	---	TH3361SS316	---
	60	---	---	---	---	---	TH3362SS316	---
	100	---	---	---	---	---	TH3363SS316	---
	200	---	---	---	---	---	TH3364SS316	---

Spec-Setter™ safety switches

Heavy duty

Ordering code for non-fusible heavy duty switches

		240V	600V
	Amps	3-pole/3-wire	3-pole/3-wire
NEMA 1	30	THN3321	THN3361
	60	---	THN3362
	100	---	THN3363
	200	---	THN3364
	400	---	THN3365A1
	600	---	THN3366A1
	800	---	TC36367
NEMA 5/12	30	---	THN3361J
	60	---	THN3362J
	100	---	THN3363J
	200	---	THN3364J
	400	---	THN3365AJ
NEMA 3R	30	---	THN3361R
	60	---	THN3362R
	100	---	THN3363R
	200	---	THN3364R
	400	---	THN3365AR
	600	---	THN3366AR
NEMA 4/4X, 304	30	---	THN3361SS
	60	---	THN3362SS
	100	---	THN3363SS
	200	---	THN3364SS
	400	---	THN3365AS
	600	---	THN3366AS
NEMA 4/4X, 316	30	---	THN3361SS316
	60	---	THN3362SS316
	100	---	THN3363SS316
	200	---	THN3364SS316



Spec-Setter™ safety switches
Double throw



Ordering code for non-fusible double throw safety switches

		240V	600V
	Amps	3-pole/3-wire	3-pole/3-wire
NEMA 1	30	TC35321	---
	60	TC35322	TC35362
	100	TC35323	TC35363
	200	TC35324	TC35364
	400	TC35325	TC35365
	600	TC35326	---
NEMA 3R	60	TC35322R	TC35362R
	100	TC35323R	TC35363R
	200	TC35324R	TC35364R
	400	TC35325R	---



Ordering code for emergency power transfer switches (non-fusible)

		120/240V	240V
	Amps	2-pole/3-wire	3-pole/4-wire
NEMA 3R	100	TC10323R	---
	200	TC10324R	TC10424R



Ordering code for interlocked receptacle switches

		Fusible	Non-fusible
	Amps	3-pole/3-wire	3-pole/3-wire
NEMA 1	60	TH3362JCH	THN3362JCH

Accessories

Ground neutral and line shield kits



TNIA64



THSHLD1

NEMA type 1 and 3R enclosures
30–600 amperes: TG and TH
800–1200 amperes: TC (single throw fusible only)

Ampere rating	Ground Kits	System Voltage (Vac)	Fusible/Non-Fusible	Ordering code Neutral kit
30	TGL1	240	Either	TNI21
60		600	Either Non-Fusible	TNI62 ¹
		600	Fusible	TNIJA62
100	TNG3	600	Non-Fusible	TNI63 ¹
200		600	Fusible	TNIA63
		600	Either	TNIJ64
400	TGL6	240 or 600	Either	TNI65
600			Either	TNI65A
			Either	TNI66
800	–		Fusible	TNI67
1200	–		Fusible	TNI68A

NEMA type 4/4X, 12 enclosures
Heavy duty switches
30–600 amperes: TH

Amperage Rating	Ground Kits	System Voltage (Vac)	Fusible/Non-Fusible	Ordering code Neutral kit
30	TGL1	240	Fusible	TNIJ61
30		600	Either	TNIJ61
60		600	Fusible	TNIJ62
60		600	Non-fusible	TNIJA62
100	TNG3	240 or 600	Either	TNIJ63
200			Either	TNIJ64
400-600	TGL6		Either	TNIJ66

¹ Not suitable for type TG switches.

Line shield replacement and upgrade kits

Line shield kits for 2020 NEC 230.62 service entrance barriers. Clear plastic unless otherwise noted.

Amperage	HD 600 V replacement kit		HD 240 V upgrade kit		GD 240 V upgrade kit	
	Product number	Series A ⁴	Product number	Series A ⁴	Product number	Series A ⁴
30	THSHLD1	–	THSHLD0 ^{2,3}	–	THSHLD0 ³	–
60	THSHLD3	–	THSHLD1	–	THSHLD1	–
100	THSHLD3 ¹	–	THSHLD3 ¹	–	THSHLD3	–
200	THSHLD4	–	THSHLD4	–	THSHLD4	–
400	THSHLD6	THSHLD5A	THSHLD6	THSHLD5A	–	THSHLD5A
600	THSHLD6	THSHLD6A	THSHLD6	THSHLD6A	–	THSHLD6A
800	THSHLD8	–	THSHLD8	–	–	–
1200	THSHLD8	–	THSHLD8	–	–	–

¹ Use THSHLD4 for 100 A NEMA 5/12 or NEMA 4X

² Replacement kit only

³ Fiberboard shield

⁴ Series A products (i.e., TH3365A1)

01 THSHLD1



01

Accessories

Fusing kits

- General duty: TG
- Heavy duty: TH



TGRK22 Class
R rejection kit

Class R fusing kit, field installable, general duty, type TG, UL listed

When specifications permit only Class R fuses to be used, these kits may be installed in the safety switch to deter fuses other than Class R from being installed.

- 30–60 A = Fuse clips
- 100–200 A = Rejection pins
- One kit required per two-pole or three-pole switch

Series prefix	Ampere rating	NEMA enclosure type	Ordering code
TG	30	1, 3R	TGRK12
	60	1, 3R	TGRK22
	100	1, 3R	TGRK42
	200	1, 3R	TGRK42

Class J fuse field conversion kit, heavy duty, type TH, UL listed

TH switches, 30–400 amperes, 600 volt and 100–400 amperes, 240 volt, may be adapted to accept Class J fuses without a kit by moving the load-block toward the switch base and remounting.

- One kit required per two-pole or three-pole switch

Series prefix	Ampere rating	System voltage (V AC)	Ordering code
TH	600	240 or 600	THJ6
TH	30–400	600	Move load-block
TH	100–400	240	Move load-block



TRK46A Class
R rejection kit

Class R fusing kit, field-installable, heavy duty, type TH, UL listed

When specifications permit only Class R fuses to be used, these kits may be installed in the safety switch to deter fuses other than Class R from being installed.

- 30–60 A = Fuse clips
- 100–600 A = Rejection pins
- One kit required per two-pole or three-pole switch

Series prefix	Ampere rating	System voltage (V AC)	NEMA enclosure type	Ordering code
TH	30	240	1, 3R, 4/4X, 12	TRK12B
	30	600	1, 3R	TRK16B
	30	600	4/4X, 12	TRK16SA
	60	240	1, 3R, 4/4X, 12	TRK22A
	60	600	1, 3R, 4/4X, 12	TRK26A
	100	240 600	1, 3R	TRK46A
	100	240 600	4/4X, 12	TPBRK36A
	200	240 600	1, 3R, 4/4X, 12	TRK46A
	400	240 600	1, 3R, 4/4X, 12	TRK56A ¹
	600	240 600	1, 3R, 4/4X, 12	TRK66A ¹

¹ Also suitable for general duty

Safety switches accessories

Auxiliary contact kits, replaceable handles and hubs



THAUX64D

Auxiliary contacts

Switch type	Ampere rating	# of poles	Contacts	Contact ratings	Ordering code
Heavy duty	30	2 3	DPDT	10 A, 125/250 V AC	THAUX21D
				0.30 A, 125V DC	
				0.15 A, 250 V DC	
	30	2 3	SPDT	15 Z, 600 V AC	THAUX61S
				0.50 A, 125 VDC	
				0.25 A, 250V DC	
	60	2 3	DPDT	15 A, 600 V AC	THAUX64D
	100			0.50 A, 125 V DC	
	200			0.25 A, 250V DC	
	400	2 3	DPDT	15 A, 600 V AC	THAUX66DA
	600			0.50 A, 125 V DC	
				0.25 A, 250 V DC	
	30	6	DPDT	15 A, 600 V AC	THAUX66D
	60			0.50 A, 125 V DC	
	100			0.25 A, 250 V DC	
	200	6	DPDT	15 A, 600 V AC	THAUX66D2
				0.50 A, 125 V DC	
				0.25 A, 250 V DC	



THRPLHDL3

Replacement Handles for HD Switches

Amps. Min	Amps Max.	Max Volts	Steel Type	Description	Ordering Code
30	30	240	Steel	Handle and Pouch	THRPLHDL1
30	30	600	Steel		THRPLHFL2
60	200	600	Steel		THRPLHDL3
30	200	600	Stainless		THRPLHDL4
400	600	600	Steel		THRPLHDL6
600	600	600	Stainless	Note: full block for Handle and Pouch	THRPLHDL7A

The handles above are what's stocked in Mount Juliet, for other handles, refer to [BuyLog](#)

Universal raintight aluminum hubs
For outdoor enclosures that have removable closing caps.



TC100

Nominal conduit diameter (in.)	Ordering code
¾	TC75
1	TC100
1¼	TC125
1½	TC150
2	TC200
2½	TC250

Closing cap for universal raintight aluminum hub

Ordering code
TCCP

Other circuit protection



Section 4
Other circuit protection

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Ground fault protective devices	
Residual current circuit breaker	4-1
Fuse holders	4-2

F200 series



F202

Type A	Poles	Ampacity	Idn	Ordering Code
	2	25	30	F202A-25/0.03 110V
	2	40	30	F202A-40/0.03 110V
	2	63	30	F202A-63/0.03 110V

F204

Type A	Poles	Ampacity	Idn	Ordering Code
	4	25	30	F204A-25/0.03 110V
	4	40	30	F204A-40/0.03 110V
	4	80	63	F204A-63/0.03 110V

Fuse Holders

E90 fuse holders



Class	Poles	Ampacity	Description	Ordering Code
CC	1	30		E91/30CC
CC	1	30	with blown-fuse indicator	E91/30CCS
CC	1	30		E91N/30CC
	1	32	Midget	E91/32
	1+N	50	Midget	E91/50
CC	2	30		E92/30CC
CC	2	30	with blown-fuse indicator	E92/30CCS
	2	32	Midget	E92/32
CC	3	30		E93/30CC
CC	3	30	with blown-fuse indicator	E93/30CCS
J	3	30		E93/30J
J	3	30	with blown-fuse indicator	E93/30JS
	3	32	Midget	E93/32
J	3	60		E93/60J
J	3	60	with blown-fuse indicator	E93/60JS
CC	3+N	30		E93N/30CC

Transformers | Low voltage dry type

Section 5

Transformers | Low voltage dry type

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Dry type, vented

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Dry type, encapsulated, enclosed

Type QMS single phase, NEMA 3R enclosure	5-2
Type QB single phase, NEMA 3R enclosure	5-3

Control power, encapsulated core & coil

Type IP single phase	5-4
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Servicenter™ mini-unit substations

Single phase, Indoor/ Outdoor 60 Hz, 115°C	5-6
Three phase, Indoor/ Outdoor 60 Hz, 150°C	5-6

Transformers

Dry type, vented



**QL, single phase, DOE2016 and NRCan, UL and CUL
NEMA 2 enclosure, Frequency 60 Hz**

Winding	kVA	Primary Voltage	Secondary Voltage	Temp Rise °C	Ordering Code
Aluminum	25	240x480	120/240	150	9T33A2671
Aluminum	37.5	240x480	120/240	150	9T33A2672
Aluminum	50	240x480	120/240	150	9T33A2673
Aluminum	75	240x480	120/240	150	9T33A2674

**QL, three phase, DOE2016, UL,
NEMA 2 enclosure, Frequency 60 Hz**

Winding	kVA	Primary Voltage	Secondary Voltage	Temp Rise °C	Noise Reduction	Electrostatic Shield	Ordering Code
Aluminum	15	480	208Y/120	150			9T10A1001
Aluminum	15	480	208Y/120	115			9T10A1001G31
Aluminum	30	480	208Y/120	150			9T10A1002
Aluminum	30	480	208Y/120	150	-3dB		9T10A1002G02
Aluminum	30	480	208Y/120	150		Yes	9T10A1002G03
Aluminum	30	480	208Y/120	115			9T10A1002G31
Aluminum	45	480	208Y/120	150			9T10A1003
Aluminum	45	480	208Y/120	150	-3dB		9T10A1003G02
Aluminum	45	480	208Y/120	150		Yes	9T10A1003G03
Aluminum	45	480	208Y/120	115			9T10A1003G31
Aluminum	75	480	208Y/120	150			9T10A1004
Aluminum	75	480	208Y/120	150	-3dB		9T10A1004G02
Aluminum	75	480	208Y/120	150		Yes	9T10A1004G03
Aluminum	75	480	208Y/120	115			9T10A1004G31
Aluminum	112.5	480	208Y/120	150			9T10A1005
Aluminum	112.5	480	208Y/120	150		Yes	9T10A1005G03
Aluminum	112.5	480	208Y/120	115			9T10A1005G31
Aluminum	150	480	208Y/120	150			9T10A1006
Aluminum	150	480	208Y/120	150		Yes	9T10A1006G03
Aluminum	150	480	208Y/120	115			9T10A1006G31
Aluminum	225	480	208Y/120	150			9T10A1007
Aluminum	300	480	208Y/120	150			9T10A1008
Aluminum	300	480	208Y/120	150		Yes	9T10A1008G03
Aluminum	500	480	208Y/120	150			9T10A1009
Aluminum	15	480	240/120	150			9T10A1181
Aluminum	30	480	240/120	150			9T10A1182
Aluminum	45	480	240/120	150			9T10A1183
Aluminum	75	480	240/120	150			9T10A1184
Aluminum	30	480	240	150			9T10A1192
Aluminum	75	480	240	150			9T10A1194
Aluminum	75	208	480Y/277	150			9T10A1344
Aluminum	112.5	208	480Y/277	150			9T10A1345
Copper	15	480	208Y/120	150			9T10C1001
Copper	30	480	208Y/120	150			9T10C1002
Copper	30	480	208Y/120	150		Yes	9T10C1002G03
Copper	30	480	208Y/120	115			9T10C1002G31

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Transformers

Dry type, vented

Winding	kVA	Primary Voltage	Secondary Voltage	Temp Rise °C	Noise Reduction	Electrostatic Shield	Ordering Code
Copper	45	480	208Y/120	150			9T10C1003
Copper	45	480	208Y/120	150		Yes	9T10C1003G03
Copper	45	480	208Y/120	115			9T10C1003G31
Copper	45	480	208Y/120	150			9T10C1003G61
Copper	75	480	208Y/120	150			9T10C1004
Copper	75	480	208Y/120	150		Yes	9T10C1004G03
Copper	75	480	208Y/120	115			9T10C1004G31
Copper	112.5	480	208Y/120	150			9T10C1005
Copper	112.5	480	208Y/120	150		Yes	9T10C1005G03
Copper	112.5	480	208Y/120	115			9T10C1005G31
Copper	150	480	208Y/120	150			9T10C1006
Copper	225	480	208Y/120	150			9T10C1007
Copper	300	480	208Y/120	150			9T10C1008
Copper	500	480	208Y/120	150			9T10C1009
Copper	45	480	208Y/120	115		Yes	9T11C1003G33

Many accessories such as rain shields, lug kits and ground kits are also available.



General purpose encapsulated, Type QMS

Single phase, NEMA 3R enclosure

Winding	Primary Voltage	Secondary Voltage	kVA	Temp Rise °C	Frequency Hz	UL	CSA	CE	CUL	Ordering Code
Aluminum	240x480	120/240	10	115	60	Y	N	N	Y	9T21B1006G02
Aluminum	480	120/240	5	115	60	Y	N	N	Y	9T21B1007G02
Aluminum	480	120/240	5	115	60	Y	N	N	Y	9T21B1013G02
Aluminum	240x480	120/240	15	115	60	Y	N	N	Y	9T21B9103
Aluminum	240x480	120/240	25	115	60	Y	N	N	Y	9T21B9104
Aluminum	480	120/240	15	115	60	Y	N	N	Y	9T21B9105
Copper	240x480	120/240	10	115	60	Y	N	N	Y	9T21C3321

Transformers

Dry type, encapsulated, enclosed

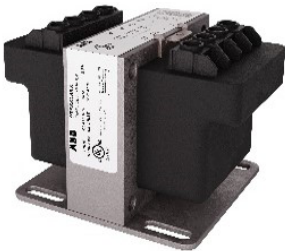


General purpose encapsulated, Type QB
Single phase, NEMA 3R enclosure

Winding	Primary Voltage	Secondary Voltage	kVA	Temp Rise °C	Frequency Hz	UL	CSA	CE	CUL	Ordering Code
Copper	240x480	120/240	0.05	55	60	Y	N	N	Y	9T51B0002
Copper	240x480	120/240	0.1	55	60	Y	N	N	Y	9T51B0004
Copper	240x480	120/240	0.75	100	60	Y	N	N	Y	9T51B0009
Copper	120x240	120/240	0.5	100	60	Y	N	N	Y	9T51B0028
Copper	600	120/240	2	100	60	Y	N	N	Y	9T51B0092
Copper	600	120/240	3	100	60	Y	N	N	Y	9T51B0093
Copper	120x240	12/24	0.05	55	60	Y	N	N	Y	9T51B0102
Copper	120x240	12/24	0.1	55	60	Y	N	N	Y	9T51B0104
Copper	120x240	12/24	0.25	80	60	Y	N	N	Y	9T51B0107
Copper	120x240	12/24	0.5	100	60	Y	N	N	Y	9T51B0108
Copper	120x240	12/24	0.75	100	60	Y	N	N	Y	9T51B0109
Copper	120x240	12/24	1	100	60	Y	N	N	Y	9T51B0110
Copper	120x240	12/24	1.5	115	60	Y	N	N	Y	9T51B0111
Copper	120x240	16/32	0.25	80	60	Y	N	N	Y	9T51B0127
Copper	120x240	16/32	0.5	100	60	Y	N	N	Y	9T51B0128
Copper	120x240	16/32	0.75	100	60	Y	N	N	Y	9T51B0129
Copper	120x240	16/32	1	100	60	Y	N	N	Y	9T51B0130
Copper	120x240	16/32	1.5	115	60	Y	N	N	Y	9T51B0131
Copper	120x240	16/32	2	115	60	Y	N	N	Y	9T51B0132
Copper	208	120/240	2	100	60	Y	N	N	Y	9T51B0156
Copper	208	120/240	3	100	60	Y	N	N	Y	9T51B0157
Copper	208	120/240	1	100	60	Y	N	N	Y	9T51B0160
Copper	380/400/416	120/240	1	100	50/60	Y	N	N	Y	9T51B0170
Copper	277	120/240	0.25	80	60	Y	N	N	Y	9T51B0187
Copper	277	120/240	3	115	60	Y	N	N	Y	9T51B0193
Copper	240x480	24/48	0.75	100	60	Y	N	N	Y	9T51B0209
Copper	240x480	24/48	1	100	60	Y	N	N	Y	9T51B0210
Copper	240x480	120/240	0.5	100	50/60	Y	N	N	Y	9T51B0508
Copper	240x480	120/240	3	115	50/60	Y	N	N	Y	9T51B0513
Copper	240x480	120/240	1.5	100	60	Y	N	N	Y	9T51B0811
Copper	208/240	120	3	115	60	Y	N	N	Y	9T51B1815
Copper	230	208	3.9	80	50/60	Y	N	N	Y	9T51B5810

Transformers

Encapsulated core & coil



Control power, Type IP
Single phase, fully encapsulated

Winding	Primary Voltage	Secondary Voltage	kVA	Temp Rise °C	Frequency Hz	UL	CSA	CE	CUL	with fusing option	Ordering Code
Copper	240x480	24/48	0.3	55	50/60	Y	N	Y	Y		9T58E0168
Copper	230x460	115	0.05	55	60	Y	N	N	Y		9T58K0042
Copper	230x460	115	0.05	55	60	Y	N	N	Y	1/4" FCTB	9T58K0042G09
Copper	240x480	120	0.075	55	60	Y	N	N	Y		9T58K0043
Copper	230x460	115	0.1	55	60	Y	N	N	Y		9T58K0044
Copper	230x460	115	0.1	55	60	Y	N	N	Y	1/4" FCTB	9T58K0044G09
Copper	230x460	115	0.15	55	60	Y	N	N	Y		9T58K0045
Copper	230x460	115	0.15	55	60	Y	N	N	Y	1/4" FCTB	9T58K0045G09
Copper	230x460	115	0.15	55	60	Y	N	N	Y	2 CC Mig	9T58K0045G38
Copper	230x460	115	0.2	80	60	Y	N	N	Y		9T58K0046
Copper	230x460	115	0.25	80	60	Y	N	N	Y		9T58K0047
Copper	230x460	115	0.25	80	60	Y	N	N	Y	1/4" FCTB	9T58K0047G09
Copper	230x460	115	0.3	80	60	Y	N	N	Y		9T58K0048
Copper	230x460	115	0.3	80	60	Y	N	N	Y	1/4" FCTB	9T58K0048G09
Copper	230x460	115	0.375	100	60	Y	N	N	Y		9T58K0049
Copper	230x460	115	0.375	100	60	Y	N	N	Y	2 CC Mig	9T58K0049G38
Copper	230x460	115	0.5	80	60	Y	N	N	Y		9T58K0050
Copper	230x460	115	0.5	80	60	Y	N	N	Y	2 CC Mig	9T58K0050G38
Copper	230x460	115	0.75	80	60	Y	N	N	Y		9T58K0051
Copper	230x460	115	1	80	60	Y	N	N	Y		9T58K0052
Copper	230x460	115	1	80	60	Y	N	N	Y	2 CC Mig	9T58K0052G38
Copper	230x460	115	1.5	100	60	Y	N	N	Y		9T58K0053
Copper	240x480	120	2	100	60	Y	N	N	Y		9T58K0054
Copper	230x460	115	3	115	60	Y	N	N	Y		9T58K0055
Copper	230/460/575	115/95	0.05	55	50/60	Y	N	N	Y		9T58K0062
Copper	230/460/575	115/95	0.1	55	50/60	Y	N	N	Y		9T58K0064
Copper	230/460/575	115/95	0.15	80	50/60	Y	N	N	Y		9T58K0065
Copper	230/460/575	115/95	0.2	100	50/60	Y	N	N	Y		9T58K0066
Copper	230/460/575	115/95	0.25	100	50/60	Y	N	N	Y		9T58K0067
Copper	230/460/575	115/95	0.3	80	50/60	Y	N	N	Y		9T58K0068
Copper	230/460/575	115/95	0.5	115	50/60	Y	N	N	Y		9T58K0070
Copper	230/460/575	115/95	0.75	100	50/60	Y	N	N	Y		9T58K0071
Copper	230/460/575	115/95	1	100	50/60	Y	N	N	Y		9T58K0072
Copper	208/277/380	115/95	0.1	55	50/60	Y	N	N	Y		9T58K0084
Copper	208/277/380	115/95	0.15	80	50/60	Y	N	N	Y		9T58K0085
Copper	208/277/380	115/95	0.2	100	50/60	Y	N	N	Y		9T58K0086
Copper	208/277/380	115/95	0.25	100	50/60	Y	N	N	Y		9T58K0087
Copper	208/277/380	115/95	0.375	80	50/60	Y	N	N	Y	2 CC Mig	9T58K0089G38
Copper	208/277/380	115/95	0.5	115	50/60	Y	N	N	Y		9T58K0090
Copper	480	120	0.06	55	60	Y	N	N	Y	2 CC , 1HK	9T58K0501G30
Copper	480	120	0.3	80	60	Y	N	N	Y	CLO	9T58K0507G37
Copper	240x480	120/240	0.05	55	60	Y	N	N	Y		9T58K1802
Copper	240x480	120/240	0.05	55	60	Y	N	N	Y		9T58K2802
Copper	240x480	120/240	0.075	55	60	Y	N	N	Y		9T58K2803

This table continued on next page

Transformers

Encapsulated core & coil

Winding	Primary Voltage	Secondary Voltage	kVA	Temp Rise °C	Frequency Hz	UL	CSA	CE	CUL	with fusing option	Ordering Code
Copper	240x480	120/240	0.1	55	60	Y	N	N	Y		9T58K2804
Copper	240x480	120/240	0.15	55	60	Y	N	N	Y		9T58K2805
Copper	240x480	120/240	0.2	80	60	Y	N	N	Y		9T58K2806
Copper	240x480	120/240	0.25	80	60	Y	N	N	Y		9T58K2807
Copper	240x480	120/240	0.3	100	60	Y	N	N	Y		9T58K2808
Copper	240x480	120/240	0.375	100	60	Y	N	N	Y		9T58K2809
Copper	240x480	120/240	0.5	100	60	Y	N	N	Y		9T58K2810
Copper	240x480	120/240	0.5	100	60	Y	N	N	Y	2 CC Mig	9T58K2810G38
Copper	240x480	120/240	0.75	100	60	Y	N	N	Y		9T58K2811
Copper	240x480	120/240	1	100	60	Y	N	N	Y		9T58K2812
Copper	240x480	120/240	1.5	100	60	Y	N	N	Y		9T58K2813
Copper	240x480	120/240	2	100	60	Y	N	N	Y		9T58K2814
Copper	240x480	120/240	3	100	60	Y	N	N	Y		9T58K2815
Copper	600	120/240	0.1	55	60	Y	N	N	Y		9T58K2824
Copper	600	120/240	0.2	80	60	Y	N	N	Y		9T58K2826
Copper	600	120/240	0.5	80	60	Y	N	N	Y		9T58K2830
Copper	600	120/240	1	115	60	Y	N	N	Y		9T58K2832
Copper	600	120/240	2	100	60	Y	N	N	Y		9T58K2834
Copper	120x240	12/24	0.05	55	60	Y	N	N	Y		9T58K2873
Copper	120x240	12/24	0.1	55	60	Y	N	N	Y		9T58K2875
Copper	120x240	12/24	0.15	55	60	Y	N	N	Y		9T58K2876
Copper	120x240	12/24	0.3	100	60	Y	N	N	Y		9T58K2879
Copper	120x240	120/240	0.5	80	60	Y	N	N	Y		9T58K2913
Copper	240x480	120/240	1	100	50/60	Y	N	N	Y		9T58K2932
Copper	240x480	120/240	3	115	50/60	Y	N	N	Y		9T58K2935
Copper	380/400/416	115/230	0.5	115	50/60	Y	N	N	Y		9T58K2978
Copper	380/400/416	115/230	0.75	100	50/60	Y	N	N	Y		9T58K2979
Copper	380/400/416	115/230	3	115	50/60	Y	N	N	Y		9T58K2983
Copper	240x480	12/24	0.25	80	60	Y	N	N	Y		9T58K3024
Copper	240x480	24	0.1	55	60	Y	N	N	Y	1/4" FCTB	9T58K3027G09
Copper	240x480	24	0.15	55	60	Y	N	N	Y	1/4" FCTB	9T58K3028G09
Copper	240x480	12/24	0.05	55	60	Y	N	N	Y		9T58K3164
Copper	230/400/460/575	115/95/125	0.35	100	50/60	Y	N	N	Y		9T58K3716
Copper	460/575	230	0.165	55	60	Y	N	N	Y		9T58K3921G43
Copper	208/240	12/24	0.15	55	60	Y	N	N	Y		9T58K4052
Copper	240x480	12/24	0.1	55	60	Y	N	N	Y		9T58K4132
Copper	240x480	12/24	0.15	55	60	Y	N	N	Y		9T58K4133
Copper	208/240/480	24	0.2	100	60	Y	N	N	Y		9T58K4183
Copper	120/240	12/24	0.075	55	50/60	Y	N	N	Y		9T58K4350
Copper	208	120	0.05	55	60	Y	N	N	Y	1/4" FCTB	9T58K4500G09
Copper	600	120	0.05	55	60	Y	N	N	Y	1/4" FCTB	9T58K4501G09
Copper	240x480	24	0.05	55	60	Y	N	N	Y	1/4" FCTB	9T58K4503G09
Copper	208	24	0.05	55	60	Y	N	N	Y	1/4" FCTB	9T58K4505G09
Copper	208	120	0.1	55	60	Y	N	N	Y	1/4" FCTB	9T58K4506G09
Copper	600	120	0.25	80	60	Y	N	N	Y	1/4" FCTB	9T58K4510G09
Copper	208	120	0.25	80	60	Y	N	N	Y	1/4" FCTB	9T58K4511G09
Copper	208	120	0.3	100	60	Y	N	N	Y	1/4" FCTB	9T58K4513G09

Transformers

Servicenter™ mini-unit substations



Integrated transformer and distribution center
Single phase, Indoor/Outdoor 60 Hz, 115 °C Winding Temperature

Input voltage	Output voltage	kVA	Max Branch spaces 1" THQL, 1-pole	Max Branch spaces 1" THQL, 2-pole	Total 1 Pole spaces	Breaker Rating Primary	Breaker Rating Secondary	Ordering Code
480 Volts Delta	120/240 Volts	5	6	3	12	25A	30A	9T21S1050
		7.5	6	3	12	35A	40A	9T21S1070
		10	8	4	16	50A	50A	9T21S1100
		15	12	6	24	60A	70A	9T21S1150
		25	20	10	24	100A	150A	9T21S1250



Integrated transformer and distribution center
Three phase, Indoor/Outdoor, 60 Hz, 150 °C, DOE 2016 efficiency, Aluminium transformer windings

Input voltage	Output voltage	kVA	Max Branch spaces 1" THQL, 1-pole	Max Branch spaces 1" THQL, 2-pole	Total 1 Pole spaces	Breaker Rating Primary	Breaker Rating Secondary	Ordering Code
240 Volts Delta	208Y/120 Volts	15	12	4	12	100A	50A	9T17A0001

Molded case and miniature circuit breakers

Section 6

Molded case and miniature circuit breakers

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Miniature circuit breakers

Ordering code construction

S	U	201	M	R	-	K	60
MCB	U = UL 489	Series/no. of poles:	M = 10 kA	R = ring tongue terminal		Trip curve:	Ampacity (A)
		201 = 1-pole		Blank = compression terminal		K	
		202 = 2-pole				C	
		203 = 3-pole				Z	
		204 = 4-pole					
S	T	201	M	-	K	60	NA
MCB	T = UL 1077	Series/no. of poles:	M = 10 kA max.		Trip curve:	Ampacity (A)	NA = switched neutral pole
		201 = 1-pole			B		Blank = none
		202 = 2-pole			C		
		203 = 3-pole			D		
		204 = 4-pole			K		
					Z		
S	201	UDC	-	K	60		
MCB	Series/no. of poles:	U = UL 489		Trip curve:	Ampacity (A)		
	201 = 1-pole	DC = increased		K			
	202 = 2-pole	DC rating		Z			
S	201	MUC	-	K	60		
MCB	Series/no. of poles:	M = 10 kA max.		Trip curve:	Ampacity (A)		
	201 = 1-pole	UC = increased		K			
	202 = 2-pole	DC rating, UL 1077		Z			
	203 = 3-pole			C			
	204 = 4-pole						
S	801	U	-	K	100		
MCB	Series/no. of poles:	U = UL 489		Trip curve:	Ampacity (A)		
	801 = 1-pole	S = UL 1077, high AC rating		B			
	802 = 2-pole	C = UL 1077, high DC rating		C			
	803 = 3-pole			D			
	804 = 4-pole			K			

Miniature circuit breakers

ST200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
B	1	6	ST201M-B6
		10	ST201M-B10
		13	ST201M-13
		16	ST201M-B16
		20	ST201M-B20
		25	ST201M-B25
		32	ST201M-B32
		40	ST201M-B40
	2	6	ST202M-B6
		10	ST202M-B10
		16	ST202M-B16
		20	ST202M-B20
		25	ST202M-B25
		32	ST202M-B32
	3	63	ST202M-B63
		13	ST203M-B13
		16	ST203M-B16
		20	ST203M-B20
		25	ST203M-B25
		32	ST203M-B32
		40	ST203M-B40
C	1	50	ST203M-B50
		63	ST203M-B63
		0.5	ST201M-C0.5
		1	ST201M-C1
		2	ST201M-C2
		3	ST201M-C3
		4	ST201M-C4
		6	ST201M-C6
		8	ST201M-C8
		10	ST201M-C10
		13	ST201M-C13
		16	ST201M-C16
		20	ST201M-C20
		25	ST201M-C25
		32	ST201M-C32
		40	ST201M-C40

Table continues on next page.

Miniature circuit breakers

ST200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
	2	1	ST202M-C1
		2	ST202M-C2
		3	ST202M-C3
		4	ST202M-C4
		6	ST202M-C6
		8	ST202M-C8
		10	ST202M-C10
		13	ST202M-C13
		16	ST202M-C16
		20	ST202M-C20
		25	ST202M-C25
		32	ST202M-C32
		40	ST202M-C40
		50	ST202M-C50
		63	ST202M-C63
	3	1	ST203M-C1
		2	ST203M-C2
		3	ST203M-C3
		4	ST203M-C4
		6	ST203M-C6
		10	ST203M-C10
		16	ST203M-C16
		20	ST203M-C20
		25	ST203M-C25
		32	ST203M-C32
		40	ST203M-C40
	D	1	ST201M-D1
		1.6	ST201M-D1.6
		2	ST201M-D2
		3	ST201M-D3
		4	ST201M-D4
		6	ST201M-D6
		8	ST201M-D8
		10	ST201M-D10
		13	ST201M-D13
		16	ST201M-D16
		20	ST201M-D20
		25	ST201M-D25
		40	ST201M-D40
		50	ST201M-D50

Table continues on next page.

Miniature circuit breakers

ST200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
	2	1	ST202M-D1
		2	ST202M-D2
		3	ST202M-D3
		4	ST202M-D4
		6	ST202M-D6
		8	ST202M-D8
		10	ST202M-D10
		13	ST202M-D13
		16	ST202M-D16
		20	ST202M-D20
		32	ST202M-D32
		50	ST202M-D50
	3	2	ST203M-D2
		3	ST203M-D3
		4	ST203M-D4
		6	ST203M-D6
		8	ST203M-D8
		10	ST203M-D10
		16	ST203M-D16
		20	ST203M-D20
		25	ST203M-D25
		32	ST203M-D32
		40	ST203M-D40
		50	ST203M-D50
K	1	0.5	ST201M-K0.5
		1	ST201M-K1
		1.6	ST201M-K1.6
		2	ST201M-K2
		3	ST201M-K3
		4	ST201M-K4
		5	ST201M-K5
		6	ST201M-K6
		8	ST201M-K8
		10	ST201M-K10
		13	ST201M-K13
		15	ST201M-K15
		16	ST201M-K16
		20	ST201M-K20
		25	ST201M-K25
		30	ST201M-K30
		32	ST201M-K32
		40	ST201M-K40
		50	ST201M-K50

Table continues on next page.

Miniature circuit breakers

ST200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
	2	1	ST202M-K1
		2	ST202M-K2
		3	ST202M-K3
		4	ST202M-K4
		5	ST202M-K5
		6	ST202M-K6
		8	ST202M-K8
		10	ST202M-K10
		13	ST202M-K13
		15	ST202M-K15
		16	ST202M-K16
		20	ST202M-K20
		25	ST202M-K25
		30	ST202M-K30
		32	ST202M-K32
		40	ST202M-K40
		50	ST202M-K50
		63	ST202M-K63
	3	1	ST203M-K1
		2	ST203M-K2
		3	ST203M-K3
		4	ST203M-K4
		5	ST203M-K5
		6	ST203M-K6
		8	ST203M-K8
		10	ST203M-K10
		13	ST203M-K13
		15	ST203M-K15
		16	ST203M-K16
		20	ST203M-K20
		25	ST203M-K25
		30	ST203M-K30
		32	ST203M-K32
		40	ST203M-K40
		50	ST203M-K50
		60	ST203M-K60
		63	ST203M-K63

Miniature circuit breakers

SU200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
C	1	0.5	SU201M-C0.5
		1	SU201M-C1
		2	SU201M-C2
		3	SU201M-C3
		4	SU201M-C4
		5	SU201M-C5
		6	SU201M-C6
		8	SU201M-C8
		10	SU201M-C10
		13	SU201M-C13
		15	SU201M-C15
		16	SU201M-C16
		20	SU201M-C20
		30	SU201M-C30
		40	SU201M-C40
	2	1	SU202M-C1
		2	SU202M-C2
		3	SU202M-C3
		4	SU202M-C4
		5	SU202M-C5
		6	SU202M-C6
		8	SU202M-C8
		10	SU202M-C10
		13	SU202M-C13
		15	SU202M-C15
		16	SU202M-C16
		20	SU202M-C20
		25	SU202M-C25
		30	SU202M-C30
		35	SU202M-C35
		40	SU202M-C40
	3	3	SU203M-C3
		5	SU203M-C5
		6	SU203M-C6
		10	SU203M-C10
		15	SU203M-C15
		16	SU203M-C16
		20	SU203M-C20
		25	SU203M-C25
		30	SU203M-C30
		35	SU203M-C35
		40	SU203M-C40
		50	SU203M-C50

Table continues on next page.

Miniature circuit breakers

SU200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
K	1	0.5	SU201M-K0.5
		1	SU201M-K1
		1.6	SU201M-K1.6
		2	SU201M-K2
		3	SU201M-K3
		4	SU201M-K4
		5	SU201M-K5
		6	SU201M-K6
		8	SU201M-K8
		10	SU201M-K10
		13	SU201M-K13
		15	SU201M-K15
		16	SU201M-K16
		20	SU201M-K20
		25	SU201M-K25
		30	SU201M-30
		32	SU201M-K32
		40	SU201M-K40
		60	SU201M-K60
	2	0.5	SU202M-K0.5
		1	SU202M-K1
		1.6	SU202M-K1.6
		2	SU202M-K2
		3	SU202M-K3
		4	SU202M-K4
		5	SU202M-K5
		6	SU202M-K6
		8	SU202M-K8
		10	SU202M-K10
		13	SU202M-K13
		15	SU202M-K15
		16	SU202M-K16
		20	SU202M-K20
		25	SU202M-K25
		30	SU202M-K30
		35	SU202M-K35
		40	SU202M-K40
		50	SU202M-K50
		60	SU202M-K60
		63	SU202M-K63

Table continues on next page.

Miniature circuit breakers

SU200M circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
	3	0.5	SU203M-K0.5
		1	SU203M-K1
		1.6	SU203M-K1.6
		2	SU203M-K2
		3	SU203M-K3
		4	SU203M-K4
		5	SU203M-K5
		6	SU203M-K6
		8	SU203M-K8
		10	SU203M-K10
		13	SU203M-K13
		15	SU203M-K15
		16	SU203M-K16
		20	SU203M-K20
		25	SU203M-K25
		30	SU203M-K30
		32	SU203M-K32
		35	SU203M-K35
		40	SU203M-K40
		50	SU203M-K50
		60	SU203M-K60
		63	SU203M-K63
Z	1	1	SU201M-Z1
		2	SU201M-Z2
		3	SU201M-Z3
		4	SU201M-Z4
		5	SU201M-Z5
		6	SU201M-Z6
		8	SU201M-Z8
		10	SU201M-Z10
		15	SU201M-Z15
		20	SU201M-Z20
	2	20	SU202M-Z20
		30	SU202M-Z30
		35	SU202M-Z35
		50	SU202M-Z50

Miniature circuit breakers

S200UDC circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
K	1	1	S201UDC-K1
		2	S201UDC-K2
		3	S201UDC-K3
		4	S201UDC-K4
		5	S201UDC-K5
		6	S201UDC-K6
		8	S201UDC-K8
		10	S201UDC-K10
		15	S201UDC-K15
		16	S201UDC-K16
		20	S201UDC-K20
		25	S201UDC-K25
	2	1.6	S202UDC-K1.6
		5	S202UDC-K5
		6	S202UDC-K6
		10	S202UDC-K10
		15	S202UDC-K15
		20	S202UDC-K20
		30	S202UDC-K30
		40	S202UDC-K40
		50	S202UDC-K50
Z	1	1	S201UDC-Z1
		2	S201UDC-Z2
		3	S201UDC-Z3
		4	S201UDC-Z4
		5	S201UDC-Z5
		6	S201UDC-Z6
		8	S201UDC-Z8
		10	S201UDC-Z10
		20	S201UDC-Z20

Miniature circuit breakers

S800U circuit breakers



Trip Curve	Poles	Ampacity	Ordering Code
K	1	20	S801U-K20
		30	S801U-K30
		100	S801U-K100
	2	30	S802U-K30
		50	S802U-K50
		60	S802U-K60
		80	S802U-K80
	3	30	S803U-K30
		40	S803U-K40
		50	S803U-K50
		60	S803U-K60
		70	S803U-K70
		80	S803U-K80
		100	S803U-K100

Miniature circuit breakers

Accessories

UL 1077 Accessories for ST200M, S200MUC

Type	Ordering Code
Shunt trip, UL 1077, Type 1	S2C-A1
Shunt trip, UL 1077, Type 2	S2C-A2
Aux. contact, UL 1077, bottom-mount	S2C-H10
Aux. contact, UL 1077, side-mount left	S2C-H11L
Aux. contact, UL 1077, side-mount right	S2C-H6R
Signal contact, UL 1077	S2C-S/H6R

UL 489 Accessories for SU(P)200M, S200UDC

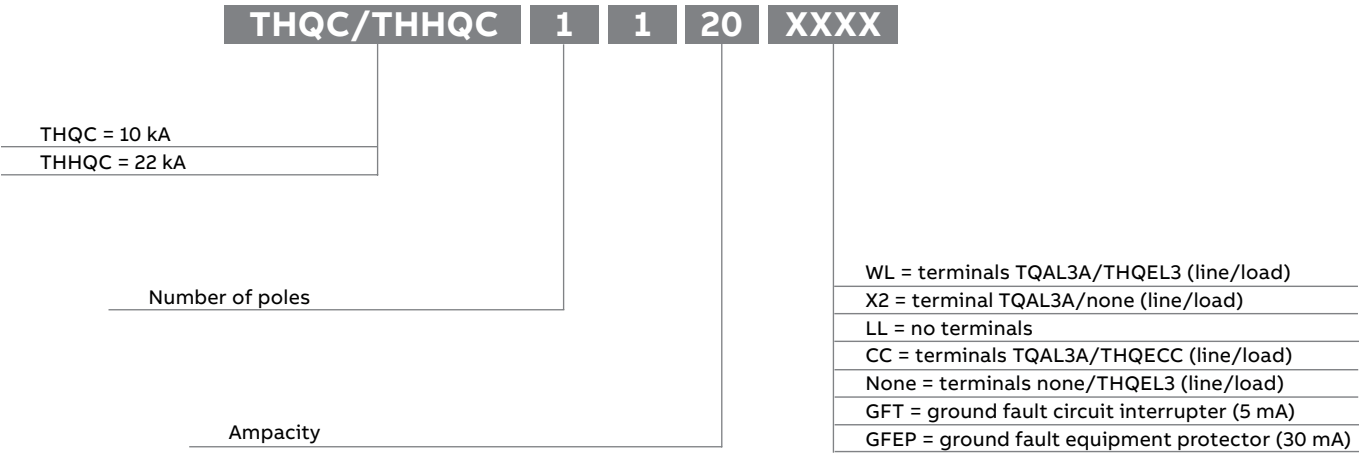
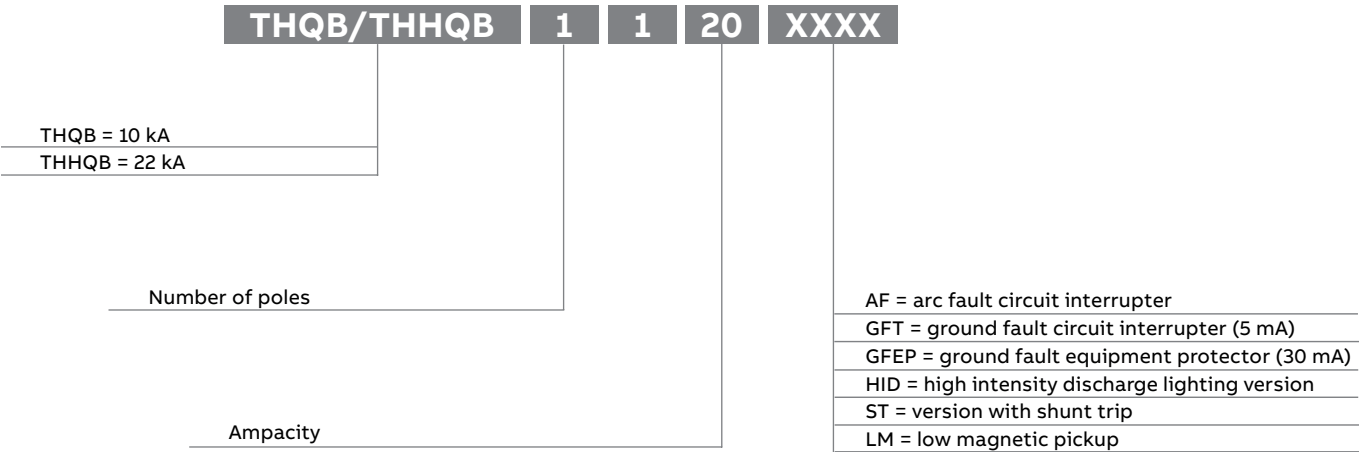
Type	Ordering Code
Feeder terminal for cuttable UL 489 busbars	AST 35/58 BP-C
Feeder terminal for non-cuttable UL 489 busbars	AST35/15BP
Tooth cover for cuttable UL 489 busbars	BSK BP-C
Tooth cover for non-cuttable UL 489 busbars	BSK-BP
Cuttable busbar, UL 489, 1-phase, 57 pins	PS 1/57/25 BP-C
Cuttable busbar, UL 489, 2-phase, 56 pins	PS 2/56/25 BP-C
Cuttable busbar, UL 489, 3-phase, 57 pins	PS 3/57/25 BP-C
Non-cuttable UL 489 busbar, 1-phase, 12 pins	PS1/12/16BP
Non-cuttable UL 489 busbar, 1-phase, 18 pins	PS1/18/16BP
Non-cuttable UL 489 busbar, 1-phase, 6 pins	PS1/6/16BP
Non-cuttable UL 489 busbar, 2-phase, 12 pins	PS2/12/16BP
Non-cuttable UL 489 busbar, 2-phase, 18 pins	PS2/18/16BP
Non-cuttable UL 489 busbar, 2-phase, 6 pins	PS2/6/16BP
Non-cuttable UL 489 busbar, 3-phase, 12 pins	PS3/12/16BP
Non-cuttable UL 489 busbar, 3-phase, 18 pins	PS3/18/16BP
Non-cuttable UL 489 busbar, 3-phase, 6 pins	PS3/6/16BP
Shunt trip, UL 489, Type 1	S2C-A1U
Shunt trip, UL 489, Type 2	S2C-A2U
Aux. contact, UL 489	S2C-H6RU
Signal contact, UL 489	S2C-S6RU

Common accessories for UL 489 and UL 1077 MCBs

Type	Ordering Code
Rotary handle mechanism for MCBs	S2C-DH
LOTO, integrated	S2C-LOTO-I
LOTO, multipole	S2C-LOTO-M
Locking device	SA1
Locking device	SA2

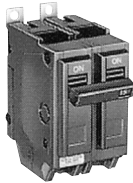
Q-Line miniature circuit breakers

Ordering code construction



Q-Line miniature circuit breakers

240V class



THQB2115

THQB 120/240 Vac

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
1	15	14-8 Cu/12-8 Al	10kA	THQB1115 ²
1	20	14-8 Cu/12-8 Al	10kA	THQB1120 ²
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	50	8-3 Cu/8-3 Al	10kA	THQB1150
1	60	8-3 Cu/8-3 Al	10kA	THQB1160

THQB 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
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

THQB 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range ¹	240 Vac Interrupting Rating	Ordering Code
2	15	14-8 Cu/12-8 Al	10kA	THQB22015
2	20	14-8 Cu/12-8 Al	10kA	THQB22020
2	30	14-8 Cu/12-8 Al	10kA	THQB22030
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

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

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
1	20	14-10 Cu/14-10 Al	10kA	THQB1120AF2 ⁴

¹Solid or stranded for 14-10 AWG.

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

³Not UL listed.

⁴Combination AFCI compliant with NEC 2008 and later.

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



THQB1120AF2

Q-Line miniature circuit breakers

240V class



THQB2120GFT

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

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
1	15	14-8Cu/12-8 Al	10kA	THQB1115GFT
1	20	14-8Cu/12-8 Al	10kA	THQB1120GFT
1	30	14-8Cu/12-8 Al	10kA	THQB1130GFT
2	15	14-8Cu/12-8 Al	10kA	THQB2115GFT
2	20	14-8Cu/12-8 Al	10kA	THQB2120GFT



THQB1115GFEP

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

# of Poles	Ampere Rating	Wire Range ¹	120 Vac Interrupting Rating	Ordering Code
1	20	14-8 Cu/12-8 Al	10kA	THQB1120GFEP
1	30	14-8 Cu/12-8 Al	10kA	THQB1130GFEP



THQB2140GFEP

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

# of Poles	Ampere Rating	Wire Range ¹	120 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	10kA	THQB2120GFEP
2	40	14-8 Cu/12-8 Al	10kA	THQB2140GFEP



THQB32020ST1

THQB, THHQB 120/240 Vac, High Intensity Discharge Lighting Loads²

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
1	20	14-8 Cu/12-8 Al	10kA	THQB1120HID ³
1	25	14-8 Cu/12-8 Al	10kA	THQB1125HID

THQB 120 Vac with Factory Installed 120 Vac Shunt Trip⁴

# of Poles	Ampere Rating	Wire Range ¹	120 Vac Interrupting Rating	Ordering Code
1	20	14-8 Cu/12-8 Al	10kA	THQB1120ST1

THQB 120 Vac, Internal Common Trip with Factory Installed 120 Vac Shunt Trip⁴

# of Poles	Ampere Rating	Wire Range ¹	120 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	10kA	THQB2120ST1
2	30	14-8 Cu/12-8 Al	10kA	THQB2130ST1
3	20	14-8 Cu/12-8 Al	10kA	THQB32020ST1
3	30	14-8 Cu/12-8 Al	10kA	THQB32030ST1
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	90	6-1/0 Cu/4-1/0 Al	10kA	THQB32090ST1
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQB32100ST1

¹Solid or stranded for 14-10 AWG.

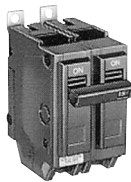
²UL listed as HID (high intensity discharge).

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

⁴20-60 ampere are UL listed as HACR (heating, air conditioning and refrigeration).

Q-Line miniature circuit breakers

240V class



THHQB2115

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

# of Poles	Ampere Rating	Wire Range ¹	120 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	10kA	THQB21WY20

THHQB 120/240 Vac

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
1	15	14-8 Cu/12-8 Al	22kA	THHQB1115 ²
1	20	14-8 Cu/12-8 Al	22kA	THHQB1120 ²
1	25	14-8 Cu/12-8 Al	22kA	THHQB1125
1	30	14-8 Cu/12-8 Al	22kA	THHQB1130
1	40	8-3 Cu/8-3 Al	22kA	THHQB1140
1	50	8-3 Cu/8-3 Al	22kA	THHQB1150

THQB/THHQB 120/240 Vac, Low Magnetic Pickup

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	10 kA	THQB2120LM

THHQB 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Ordering Code
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	50	8-3 Cu/8-3 Al	22kA	THHQB2150
2	60	8-3 Cu/8-3 Al	22kA	THHQB2160
2	80	6-1/0 Cu/4-1/0 Al	22kA	THHQB2180
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 ¹	240 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	22kA	THHQB22020
2	30	14-8 Cu/12-8 Al	22kA	THHQB22030
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

¹Solid or stranded for 14-10 AWG.

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

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

Q-Line miniature circuit breakers

Cable-in Cable-out (lug lug), 240V class

THQC, THHC 120/240 Vac

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Product Number ²	120/240 Vac Interrupting Rating	Ordering Code
1	15	14-8 Cu/12-8 Al	10kA	THQC1115WL ^{3,4}	22kA	THHC1115WL ³
1	20	14-8 Cu/12-8 Al	10kA	THQC1120WL ^{3,4}	22kA	THHC1120WL ³
1	30	14-8 Cu/12-8 Al	10kA	THQC1130WL ³	22kA	THHC1130WL ³
1	40	8-3 Cu/8-3 Al	10kA	THQC1140WL ³	22kA	THHC1140WL ³
1	50	8-3 Cu/8-3 Al	10kA	THQC1150WL ³	–	–
1	60	8-3 Cu/8-3 Al	10kA	THQC1160WL ³	–	–
1	70	6-1/0 Cu/4-1/0 Al	10kA	THQC1170WL	–	–

THQC, THHC 120/240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range ¹	120/240 Vac Interrupting Rating	Product Number ²	120/240 Vac Interrupting Rating	Ordering Code
2	15	14-8 Cu/12-8 Al	10kA	THQC2115WL ³	22kA	THHC2115WL ³
2	20	14-8 Cu/12-8 Al	10kA	THQC2120WL ³	22kA	THHC2120WL ³
2	25	14-8 Cu/12-8 Al	10kA	THQC2125WL ³	–	–
2	30	14-8 Cu/12-8 Al	10kA	THQC2130WL ³	–	–
2	35	8-3 Cu/8-3 Al	10kA	THQC2135WL ³	–	–
2	40	8-3 Cu/8-3 Al	10kA	THQC2140WL ³	–	–
2	50	8-3 Cu/8-3 Al	10kA	THQC2150WL ³	22kA	THHC2150WL ³
2	60	8-3 Cu/8-3 Al	10kA	THQC2160WL ³	22kA	THHC2160WL ³
2	70	6-1/0 Cu/4-1/0 Al	10kA	THQC2170WL	–	–
2	80	6-1/0 Cu/4-1/0 Al	10kA	THQC2180WL	–	–
2	90	6-1/0 Cu/4-1/0 Al	10kA	THQC2190WL	22kA	THHC2190WL
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQC21100WL	22kA	THHC21100WL

THQC, THHC 240 Vac, Internal Common Trip

# of Poles	Ampere Rating	Wire Range ¹	240 Vac Interrupting Rating	Product Number ²	240 Vac Interrupting Rating	Ordering Code
2	20	14-8 Cu/12-8 Al	10kA	THQC22020WL	22kA	THHC22020WL
2	25	14-8 Cu/12-8 Al	10kA	THQC22025WL	–	–
2	30	14-8 Cu/12-8 Al	10kA	THQC22030WL	22kA	THHC22030WL
2	40	8-3 Cu/8-3 Al	10kA	THQC22040WL	–	–
2	50	8-3 Cu/8-3 Al	–	–	22kA	THHC22050WL
2	60	8-3 Cu/8-3 Al	–	–	22kA	THHC22060WL
2	100	6-1/0 Cu/4-1/0 Al	10kA	THQC22100WL	22kA	THHC22100WL
3	15	14-8 Cu/12-8 Al	10kA	THQC32015WL	22kA	THHC32015WL
3	20	14-8 Cu/12-8 Al	10kA	THQC32020WL	22kA	THHC32020WL
3	25	14-8 Cu/12-8 Al	10kA	THQC32025WL	22kA	THHC32025WL
3	30	14-8 Cu/12-8 Al	10kA	THQC32030WL	22kA	THHC32030WL
3	40	8-3 Cu/8-3 Al	10kA	THQC32040WL	22kA	THHC32040WL
3	50	8-3 Cu/8-3 Al	10kA	THQC32050WL	22kA	THHC32050WL
3	60	8-3 Cu/8-3 Al	10kA	THQC32060WL	22kA	THHC32060WL
3	70	6-1/0 Cu/4-1/0 Al	10kA	THQC32070WL	22kA	THHC32070WL
3	80	6-1/0 Cu/4-1/0 Al	10kA	THQC32080WL	–	–
3	90	6-1/0 Cu/4-1/0 Al	10kA	THQC32090WL	–	–
3	100	6-1/0 Cu/4-1/0 Al	10kA	THQC32100WL	22kA	THHC32100WL

¹Solid or stranded for 14-10 AWG.

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

³Suitable for mounting on standard 35mm DIN Rail. Refer to table on page 6-38 for termination options.

⁴UL 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 6-40 and 6-41.

Q-Line miniature circuit breakers

Stocked DIN-Rail Mount, 240V class

Product Features

Multi-terminal Configuration Breakers

- 35 mm DIN rail mounting
- Optional front/rear panel mounting kits–THQCFMK, page 6-40.
- 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	Ordering code No Lugs	Ordering code Line TQAL3A and Load THQECC
1	15	10kA	THQC1115LL ¹	–
1	20	10kA	THQC1120LL ¹	–
1	60	10kA	THQC1160LL	–
1	20	22kA	THHQC1120LL	THHQC1120CC

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	Ordering code No Lugs	Ordering code Line TQAL3A and Load THQECC
2	20	10kA	THQC2120LL ¹	–
2	25	10kA	THQC2125LL	–
2	30	10kA	THQC2130LL	–
2	35	10kA	–	THQC2135CC
2	40	10kA	THQC2140LL	–
2	45	10kA	–	THQC2145CC
2	50	10kA	–	THQC2150CC
2	15	22kA	THHQC2115LL	–
2	60	22kA	THHQC2160LL	–

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

SACE® Tmax® XT MCCBs main characteristics

SACE Tmax XT range performance

		XT1	XT2	XT3	XT4	XT5	XT6	XT7
Frame size (A)		125	125	225	250	600	800	1200
Poles		3, 4	3, 4	3, 4	3, 4	3, 4	3, 4	3, 4
Interrupt rating (kA)	240 V AC	50, 65, 100	65, 100, 150, 200	50, 65	65, 100, 150, 200	65, 100, 150, 200	65, 100, 200	65, 100, 200
	480 V AC	25, 35, 65	25, 35, 65, 100, 150, 200	25, 35	25, 35, 65, 100, 150, 200	35, 50, 65, 100, 150, 200	35, 50, 65	50, 65, 100
	600 V AC	–	18, 22, 25, 35, 42	–	18, 22, 25, 50, 65, 100	18, 25, 35, 65, 100	20, 25, 35	25, 50, 65
Dimensions (in.)	3-poles breaker	3 x 2.75 x 5.12	3.54 x 3.25 x 5.12	4.13 x 2.75 x 5.90	4.13 x 3.25 x 6.3	5.51 x 4.07 x 8.07	8.27 x 4.07 x 10.55	8.27 x 6.57 x 10.55
(W x D x H)	Packaging	5.04 x 5.63 x 5.31	5.12 x 5.71 x 8.19	6.10 x 7.48 x 7.48	5.71 x 6.61 x 8.27	9.76 x 11.22 x 9.45	12.01 x 14.57 x 11.22	11.02 x 14.17 x 13.78
Trip units	TMF	✓	✓	✓	✓	–	–	–
	TMA	–	✓	–	✓	✓	✓	–
	Ekip DIP	–	✓	–	✓	✓	✓	✓
	Ekip	–	✓	–	✓	✓	–	✓
	Touch	–	–	–	–	–	–	–

SACE Tmax XT range trip units capabilities

Thermomagnetic trip units

Electronic trip units



Features	TMF	TMA	Ekip DIP (LS/I, LIG, LSI and LSIG)	Ekip Touch, Touch measuring and Hi-Touch (LSI and LSIG)
Overload (L) and Instantaneous (I) protection	✓	✓	✓	✓
Ground fault protection (G)	–	–	✓ (with LSIG)	✓ (with LSIG)
Selective short circuit protection (S)	–	–	✓ (with LS/I ¹ , LSI or LSIG)	✓
L protection adjustability (I1)	Fixed	0.7–1 x In*	0.4...1.0 x In Steps of 0.04 (LS/I) or 0.02 (LSI/LSIG)	0.4...1.0 x In Steps of 0.001 x In
S protection adjustability (I2) ²	–	–	Off, 1...10 x In Steps of 0.5 x In ³	Off, 0.6...10 x In Steps of 0.1 x In
I protection adjustability (I3) ²	Fixed	5–10 x In	1...10 x In Steps of 0.5 x In ³	1.5...10 x In (15 x In for XT7) Steps of 0.1 x In
G protection adjustability (I4) ²	–	–	Off, 0.2, 0.25, 0.45, 0.55, 0.75, 0.80 and 1 x In	Off, 0.1...1 x In 0.001 x In
Communication	–	–	–	–
Cloud connectivity	–	–	–	–
Bluetooth ⁴ connectivity	–	–	–	✓
Current measurements	–	–	–	✓
Voltage, power and energy measurements	–	–	–	✓ (with Ekip Touch measuring)
Voltage, power and energy measurements and protections	–	–	–	✓ (with Ekip Hi-Touch)
Embedded functions	–	–	–	–
RELT (reduced energy let-through feature)	–	–	–	–
Event recorder, contact wear information and self-diagnosis	–	–	–	✓

Legend

– Not a possible feature

✓ Included

○ Optional

* In = Trip unit sensor

¹ Either S or I must be selected during commissioning

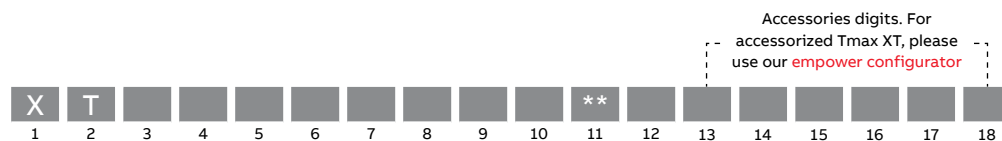
² Valid for Tmax XT1-6. For Tmax XT7, please refer to Tech Catalog

³ 4, 5, 6 and 9.5 x In not available

⁴ Bluetooth is a trademark of Bluetooth SIG, Inc.

SACE® Tmax® XT molded case circuit breakers

Ordering code construction



1 & 2 Version

Digit
X T

3 Frame

Digit
1 2 3 4 5 6 7

4 Interrupting ratings – 480 V AC

Digits	XT1	XT2	XT3	XT4	XT5	XT6	XT7
N	25	25	25	25	35	35	–
S	35	35	35	35	50	50	50
H	65	65	–	65	65	65	65
L	–	100	–	100	100	–	100
V	–	150	–	150	150	–	–
X	–	200	–	200	200	–	–

5 Standard UL and IEC

Digit
U UL 489 80% / IEC 60947-2
Q UL 489 100% / IEC 60947-2
C UL 80% + CCC
D UL 100% + CCC
E IEC only
S IEC 50 °C

6 Number of poles

Digit
3 3 Poles
4 4 Poles 100%
N 4 Poles 50% (IEC only)

7, 8, 9 Frame amps

XT1–4		XT5–7	
Digits	Amps	Digits	Amps
0 1 0	10	2 5 A	250 (XT5)
0 1 5	15	3 0 A	300 (XT5)
0 2 0	20	3 2 A	320 (XT5 IEC ¹)
0 2 5	25	4 0 A	400 (XT5)
0 3 0	30	5 0 B	500 (XT5)
0 3 5	35	6 0 B	600 (XT5)
0 4 0	40	6 0 0	600 (XT6)
0 4 5	45	6 0 C	600 (XT7)
0 5 0	50	6 3 B	630 (XT5 IEC ¹)
0 6 0	60	6 3 0	630 (XT6 IEC ¹)
0 7 0	70	8 0 0	800 (XT6)
0 8 0	80	8 0 C	800 (XT7)
0 9 0	90	1 K 0	1000 (XT6 IEC ¹)
1 0 0	100	1 0 D	1000 (XT7)
1 1 0	110	1 2 E	1200/1250 (XT7)
1 2 5	125	1 6 F	1600 (XT7 IEC ¹)
1 5 0	150		
1 7 5	175		
2 0 0	200		
2 2 5	225		
2 5 0	250		

10 Trip unit

Power distribution		
Digit	Protection	Trip Unit
A	TMF	Thermal-magnetic
B	TMA	Thermal-magnetic adjustable
E	LS/I*	Ekip DIP
C	LIG	Ekip DIP
F	LSI	Ekip DIP
P	LSI	Ekip Touch
R	LSI	Ekip Touch Measuring
T	LSI	Ekip Hi-Touch
G	LSIG	Ekip DIP
Q	LSIG	Ekip Touch
S	LSIG	Ekip Touch Measuring
U	LSIG	Ekip Hi-Touch

Generator protection

Digit	Protection	Trip Unit
X	LS/I*	Ekip G DIP
Y	LSIG	Ekip G Touch
Z	LSIG	Ekip G Hi-Touch

Motor protection

Digit	Protection	Trip Unit
M	MA (MCP)	Magnetic Adjustable
J	I (MCP) XT2/4	Ekip M DIP
K	I (MCP)	Ekip M DIP
K	I (MCP) XT5/6/7	Ekip M DIP
W	LRIU (MPCB)	Ekip M Touch

Molded Case Switch

Digit	Protection	Trip Unit
D	MCS	–



** Must be “Y” for ReliaGear neXT breakers, used in ReliaGear neXT power panelboards and ReliaGear SB switchboards.

⁽¹⁾ IEC only.

This ordering code structure is meant for field identification of a SACE Tmax XT.

Reference only. For stocked items, see following pages.

* Selectable either S or I only (use for LI)

Lugs PN Scheme (positions 11-12)

Installed Lug	Digits 11 (Top of the breaker) and 12 (Bottom of the breaker)						
	XT1	XT2	XT3	XT4	XT5	XT6	XT7
F Front terminals, no lugs installed	F	F	F	F	F	F	F
FC Cu 1x 14-1/0 AWG	A	A	G	G			
FC CuAl 1x 14-1/0 AWG (MCP)	B						
FC CuAl 1x 14-1/0 AWG AuxV		C	H	H			
FC CuAl 1x 10-2/0 AWG	D	D					
FC CuAl 1x 10-2/0 AWG AuxV	E	E					
FC CuAl 1x 4 AWG-300 kcmil			J	J			
FC CuAl 1x 4 AWG-300 kcmil AuxV			K	K			
FC CuAl 1x 3/0 AWG-350 (External)				L			
FC CuAl 1x 3/0 AWG-350 AuxV (External)				M			
FC CuAl 1x 3/0 AWG-350 Kcmil (Internal)				8			
FC CuAl 1x 3/0 AWG-350 Kcmil AuxV (Internal)				9			
FC CuAl 1x 4/0AWG-500kcmil					8		
FC CuAl 1x 6AWG-350kcmil					9		
FC CuAl 2x 2/0-500kcmil					N		
FC CuAl 1x 500kcmil AuxV					P		
FC CuAl 1x 350kcmil AuxV					Q		
FC CuAl 2x 500kcmil AuxV					R	R	
FC CuAl 1x 750 kcmil					B		
FC CuAl 1x 750 kcmil AuxV					C		
FC CuAl 2x 500-750 kcmil					S	S	
FC CuAl 2x 500-750 kcmil AuxV					O	O	
FC CuAl 2x 250-500kcmil						T	
FC CuAl 3x 2/0AWG-400kcmil						U	
FC CuAl 3x 400kcmil AuxV						V	
FC CuAl 4x 4/0 AWG - 500kcmil							W
FC CuAl 4x 4/0 AWG - 500kcmil AuxV							5
FC CuAl 3x 500-750kcmil							X
VR - Rear vertical terminals							I
MC Cu 6x 14-2 AWG (multi cable lug)	Z	Z	Z	Z	Z		
EF Extended front terminals	1	1	1	1	1	1	1
ES Extended spread terminals	2	2	2	2	2	2	2
FB Terminals for flexible busbar	3	3	3	3			
R Rear terminals	4	4	4	4	4	4	4
Plug-in kit	6	6	6	6	6		
Withdrawable kit		7		7	7	7	7
ReliaGear® Tmax® XT Breaker**	Y*	Y*		Y*	Y*	Y*	Y*

*Note: Y represents the plug-in connector on the line side (top) of the MCCB. A ReliaGear® Tmax® XT Breaker will always include a load side (bottom) Lug (Digit 12).

** ReliaGear® Tmax® XT Breaker is an MCCB used as a Feeder or Horizontal Main in ABB ReliaGear® neXT Power Panelboard and SB Switchboard, and also compatible with ABB's OEM bus stack offering.

SACE® Tmax® XT molded case circuit breakers

XT1 base breakers



XT1 125A Fixed (F) - 3 poles - with Cu 1x14-1/0 AWG saddle terminals (A) - UL/CSA

		N	S	H
Interrupting rating @ 480v		25kA	35kA	65kA
In	I ₃	Ordering Code	Ordering Code	Ordering Code
Fixed thermal magnetic trip unit (TMF)				
15	500	XT1NU3015AAA000XXX	---	---
20	500	XT1NU3020AAA000XXX	---	---
25	500	XT1NU3025AAA000XXX	---	---
30	500	XT1NU3030AAA000XXX	---	---
30A (100% rated)	500	XT1NQ3030AAA000XXX	---	---
35	500	XT1NU3035AAA000XXX	---	---
40	500	XT1NU3040AAA000XXX	---	---
45	500	XT1NU3045AAA000XXX	---	---
50	500	XT1NU3050AAA000XXX	---	---
60	600	XT1NU3060AAA000XXX	XT1SU3060AAA000XXX	---
70	700	XT1NU3070AAA000XXX	---	---
80	800	XT1NU3080AAA000XXX	---	---
90	900	XT1NU3090AAA000XXX	---	---
100	1000	XT1NU3100AAA000XXX	---	---
100A (100% rated)	1000	XT1NQ3100AAA000XXX	---	---
110	1100	XT1NU3110AAA000XXX	---	---
125	1250	XT1NU3125AAA000XXX	---	---

Ordering code linked to product datasheet.

SACE® Tmax® XT molded case circuit breakers

XT1 base breakers



XT1 125A Fixed (F) - 3 poles - without lugs (see lugs on page 6-28) - UL/CSA

		N	S	H
Interrupting rating @ 480v		25kA	35kA	65kA
In	I ₃	Ordering Code	Ordering Code	Ordering Code
Fixed thermal magnetic trip unit (TMF)				
15	500	XT1NU3015AFF000XXX	XT1SU3015AFF000XXX	XT1HU3015AFF000XXX
20	500	XT1NU3020AFF000XXX	XT1SU3020AFF000XXX	XT1HU3020AFF000XXX
25	500	XT1NU3025AFF000XXX	XT1SU3025AFF000XXX	XT1HU3025AFF000XXX
30	500	XT1NU3030AFF000XXX	XT1SU3030AFF000XXX	XT1HU3030AFF000XXX
35	500	XT1NU3035AFF000XXX	XT1SU3035AFF000XXX	XT1HU3035AFF000XXX
40	500	XT1NU3040AFF000XXX	XT1SU3040AFF000XXX	XT1HU3040AFF000XXX
45	500	XT1NU3045AFF000XXX	---	XT1HU3045AFF000XXX
50	500	XT1NU3050AFF000XXX	XT1SU3050AFF000XXX	XT1HU3050AFF000XXX
60	600	XT1NU3060AFF000XXX	XT1SU3060AFF000XXX	XT1HU3060AFF000XXX
70	700	XT1NU3070AFF000XXX	XT1SU3070AFF000XXX	XT1HU3070AFF000XXX
70A (100% rated)	700	XT1NQ3070AFF000XXX	---	---
80	800	XT1NU3080AFF000XXX	XT1SU3080AFF000XXX	XT1HU3080AFF000XXX
90	900	XT1NU3090AFF000XXX	XT1SU3090AFF000XXX	XT1HU3090AFF000XXX
100	1000	XT1NU3100AFF000XXX	XT1SU3100AFF000XXX	XT1HU3100AFF000XXX
100A (100% rated)	1000	XT1NQ3100AFF000XXX	XT1SQ3100AFF000XXX	---
110	1100	XT1NU3110AFF000XXX	XT1SU3110AFF000XXX	XT1HU3110AFF000XXX
125	1250	XT1NU3125AFF000XXX	XT1SU3125AFF000XXX	XT1HU3125AFF000XXX
Magnetic trip unit (MCP)				
3	9-33	---	---	XT1HU3003MFF000XXX
7	21-77	---	---	XT1HU3007MFF000XXX
15	45-165	---	---	XT1HU3015MFF000XXX
30	90-330	---	---	XT1HU3030MFF000XXX
50	150-550	---	---	XT1HU3050MFF000XXX
70	210-770	---	---	XT1HU3070MFF000XXX
80	240-880	---	---	XT1HU3080MFF000XXX
100	300-1100	---	---	XT1HU3100MFF000XXX
125	375-1375	---	---	XT1HU3125MFF000XXX
Molded case switch (MCS)				
In	Mag. override			
125	1000	XT1NU3125DFF000XXX	XT1SU3125DFF000XXX	XT1HU3125DFF000XXX

SACE® Tmax® XT molded case circuit breakers

XT2 base breakers



XT2 125A - Fixed (F) - 3 poles - without lugs (see lugs on page 6-28) - UL/CSA

	N	S	H	L
Interrupting rating @ 480v	25kA	35kA	65kA	100kA
In	Ordering Code	Ordering Code	Ordering Code	Ordering Code
Thermal magnetic fixed (TMF)				
15	XT2NU3015AFF000XXX	XT2SU3015AFF000XXX	XT2HU3015AFF000XXX	XT2LU3015AFF000XXX
20	XT2NU3020AFF000XXX	XT2SU3020AFF000XXX	XT2HU3020AFF000XXX	XT2LU3020AFF000XXX
25	XT2NU3025AFF000XXX	XT2SU3025AFF000XXX	XT2HU3025AFF000XXX	---
30	XT2NU3030AFF000XXX	XT2SU3030AFF000XXX	XT2HU3030AFF000XXX	XT2LU3030AFF000XXX
35	XT2NU3035AFF000XXX	XT2SU3035AFF000XXX	XT2HU3035AFF000XXX	XT2LU3035AFF000XXX
40	XT2NU3040AFF000XXX	XT2SU3040AFF000XXX	XT2HU3040AFF000XXX	XT2LU3040AFF000XXX
50	XT2NU3050AFF000XXX	XT2SU3050AFF000XXX	XT2HU3050AFF000XXX	XT2LU3050AFF000XXX
60	XT2NU3060AFF000XXX	XT2SU3060AFF000XXX	XT2HU3060AFF000XXX	XT2LU3060AFF000XXX
70	XT2NU3070AFF000XXX	XT2SU3070AFF000XXX	XT2HU3070AFF000XXX	XT2LU3070AFF000XXX
Thermal magnetic adjustable (TMA)				
80	XT2NU3080BFF000XXX	XT2SU3080BFF000XXX	XT2HU3080BFF000XXX	XT2LU3080BFF000XXX
90	XT2NU3090BFF000XXX	XT2SU3090BFF000XXX	XT2HU3090BFF000XXX	XT2LU3090BFF000XXX
100	XT2NU3100BFF000XXX	XT2SU3100BFF000XXX	XT2HU3100BFF000XXX	XT2LU3100BFF000XXX
110	---	---	XT2HU3110BFF000XXX	XT2LU3110BFF000XXX
125	XT2NU3125BFF000XXX	XT2SU3125BFF000XXX	XT2HU3125BFF000XXX	XT2LU3125BFF000XXX
Magnetic trip unit (MCP)				
7	---	---	XT2HU3007MFF000XXX	---
15	---	---	XT2HU3015MFF000XXX	---
30	---	---	XT2HU3030MFF000XXX	---
50	---	---	XT2HU3050MFF000XXX	---
70	---	---	XT2HU3070MFF000XXX	---
80	---	---	XT2HU3080MFF000XXX	---
100	---	---	XT2HU3100MFF000XXX	---
125	---	---	XT2HU3125MFF000XXX	---
Ekip Dip LS/I trip unit				
60	XT2NU3060EFF000XXX	XT2SU3060EFF000XXX	XT2HU3060EFF000XXX	---
100	XT2NU3100EFF000XXX	XT2SU3100EFF000XXX	XT2HU3100EFF000XXX	XT2LU3100EFF000XXX
125	XT2NU3125EFF000XXX	XT2SU3125EFF000XXX	XT2HU3125EFF000XXX	---
125 (100% rated)	XT2NQ3125EFF000XXX	XT2SQ3125EFF000XXX	XT2HQ3125EFF000XXX	---
Ekip Dip LSIG trip unit				
25	XT2NU3025GFF000XXX	XT2SU3025GFF000XXX	---	---
60	---	---	XT2HU3060GFF000XXX	---
100	XT2NU3100GFF000XXX	XT2SU3100GFF000XXX	XT2HU3100GFF000XXX	---
125	XT2NU3125GFF000XXX	XT2SU3125GFF000XXX	XT2HU3125GFF000XXX	---
Molded case switch (MCS)				
In				
125	---	---	XT2HU3125DFF000XXX	---

SACE® Tmax® XT molded case circuit breakers

XT3 base breakers



XT3 225A - Fixed (F) - 3 poles - without lugs (see lugs on page 6-28) - UL/CSA

		N	S
Interrupting rating @ 480v		25kA	35kA
In	I ₃	Ordering Code	Ordering Code
Fixed thermal magnetic trip unit (TMF)			
60	600	XT3NU3060AFF000XXX	---
80	800	XT3NU3080AFF000XXX	---
90	900	XT3NU3090AFF000XXX	---
100	1000	XT3NU3100AFF000XXX	XT3SU3100AFF000XXX
110	1100	XT3NU3110AFF000XXX	XT3SU3110AFF000XXX
125	1250	XT3NU3125AFF000XXX	XT3SU3125AFF000XXX
150	1500	XT3NU3150AFF000XXX	XT3SU3150AFF000XXX
175	1750	XT3NU3175AFF000XXX	XT3SU3175AFF000XXX
200	2000	XT3NU3200AFF000XXX	XT3SU3200AFF000XXX
200A (100% rated)	2000	XT3NQ3200AFF000XXX	---
225	2250	XT3NU3225AFF000XXX	XT3SU3225AFF000XXX
Magnetic trip unit (MCP)			
110	660-1320	---	XT3SU3110MFF000XXX
125	750-1500	---	XT3SU3125MFF000XXX
150	900-1800	---	XT3SU3150MFF000XXX
200	1200-2400	---	XT3SU3200MFF000XXX
Molded case switch (MCS)			
In			
225	2250	XT3NU3225DFF000XXX	XT3SU3225DFF000XXX

SACE® Tmax® XT molded case circuit breakers

XT4 base breakers



XT4 250A - Fixed (F) - 3 poles - without lugs (see lugs on page 6-28) - UL/CSA

		N	S	H	L
Interrupting rating @480v		25kA	35kA	65kA	100kA
In	I ₃	Ordering Code	Ordering Code	Ordering Code	Ordering Code
Thermal magnetic fixed (TMF)					
150	1500	XT4NU3150AFF000XXX	XT4SU3150AFF000XXX	XT4HU3150AFF000XXX	XT4LU3150AFF000XXX
175	1750	XT4NU3175AFF000XXX	XT4SU3175AFF000XXX	XT4HU3175AFF000XXX	XT4LU3175AFF000XXX
200	2000	XT4NU3200AFF000XXX	XT4SU3200AFF000XXX	XT4HU3200AFF000XXX	XT4LU3200AFF000XXX
225	2250	XT4NU3225AFF000XXX	XT4SU3225AFF000XXX	XT4HU3225AFF000XXX	XT4LU3225AFF000XXX
250	2500	XT4NU3250AFF000XXX	XT4SU3250AFF000XXX	XT4HU3250AFF000XXX	XT4LU3250AFF000XXX
250A (100% rated)	2500	XT4NQ3250AFF000XXX	---	XT4HQ3250AFF000XXX	---
Thermal magnetic adjustable (TMA)					
150	750-1500	XT4NU3150BFF000XXX	XT4SU3150BFF000XXX	XT4HU3150BFF000XXX	---
175	875-1750	XT4NU3175BFF000XXX	XT4SU3175BFF000XXX	XT4HU3175BFF000XXX	XT4LU3175BFF000XXX
200	1000-2000	XT4NU3200BFF000XXX	XT4SU3200BFF000XXX	XT4HU3200BFF000XXX	XT4LU3200BFF000XXX
225	1125-2250	XT4NU3225BFF000XXX	XT4SU3225BFF000XXX	XT4HU3225BFF000XXX	XT4LU3225BFF000XXX
250	1250-2500	XT4NU3250BFF000XXX	XT4SU3250BFF000XXX	XT4HU3250BFF000XXX	XT4LU3250BFF000XXX
250	1250-2500	XT4NQ3250BFF000XXX	XT4SQ3250BFF000XXX	XT4HQ3250BFF000XXX	---
Magnetic trip unit (MCP)					
25	75-275	---	---	XT4HU3025MFF000XXX	---
50	150-550	---	---	XT4HU3050MFF000XXX	---
100	500-7000	---	---	XT4HU3100MFF000XXX	---
150	750-1500	---	---	XT4HU3150MFF000XXX	---
175	875-1750	---	---	XT4HU3175MFF000XXX	---
200	1000-2000	---	---	XT4HU3200MFF000XXX	---
250	1250-2500	---	---	XT4HU3250MFF000XXX	---
Ekip Dip LS/I trip unit					
150	---	XT4NU3150EFF000XXX	XT4SU3150EFF000XXX	XT4HU3150EFF000XXX	---
225	---	XT4NU3225EFF000XXX	XT4SU3225EFF000XXX	XT4HU3225EFF000XXX	---
250	---	XT4NU3250EFF000XXX	XT4SU3250EFF000XXX	XT4HU3250EFF000XXX	XT4LU3250EFF000XXX
250A (100% rated)	---	XT4NQ3250EFF000XXX	XT4SQ3250EFF000XXX	XT4HQ3250EFF000XXX	---
Ekip Dip LSIG trip unit					
150	---	XT4NU3150GFF000XXX	---	XT4HU3150GFF000XXX	---
225	---	XT4NU3225GFF000XXX	---	XT4HU3225GFF000XXX	---
250	---	XT4NU3250GFF000XXX	XT4SU3250GFF000XXX	XT4HU3250GFF000XXX	---
Molded case switch (MCS)					
In	Mag. Override				
250	2500	XT4NU3250DFF000XXX	XT4SU3250DFF000XXX	XT4HU3250DFF000XXX	---

SACE® Tmax® XT molded case circuit breakers

XT5 and XT6 base breakers



XT5 400/600A - Fixed (F) - 3 poles without lugs (see lugs on page 6-29) - UL

	N	S	H	L
Interrupting rating @ 480Vac	35kA	50kA	65kA	100kA
In	Ordering Code	Ordering Code	Ordering Code	Ordering Code
Thermal magnetic adjustable (TMA)				
300	XT5NU330ABFF000XXX	XT5SU330ABFF000XXX	XT5HU330ABFF000XXX	---
400	XT5NU340ABFF000XXX	XT5SU340ABFF000XXX	XT5HU340ABFF000XXX	---
600	XT5NU360BBFF000XXX	XT5SU360BBFF000XXX	XT5HU360BBFF000XXX	---
400A (100% rated)	XT5NQ340ABFF000XXX	---	---	---
Ekip Dip LS/I trip unit				
300	XT5NU330AEFF000XXX	---	---	---
400	XT5NU340AEFF000XXX	---	XT5HU340AEFF000XXX	---
400A (100% rated)	XT5NQ340AEFF000XXX	XT5SQ340AEFF000XXX	XT5HQ340AEFF000XXX	---
600	XT5NU360BEFF000XXX	---	XT5HU360BEFF000XXX	---
Ekip Dip LSI trip unit				
400	---	XT5SU340AFF000XXX	XT5HU340AFF000XXX	---
600	---	---	XT5HU360BFFF000XXX	---
Molded case switch (MCS)				
400	---	---	XT5HU340ADFF000XXX	---
600	XT5NU360BFFF000XXX	XT5SU360BFFF000XXX	XT5HU360BDFF000XXX	---
Ekip I trip unit				
400	XT5NU340AKFF000XXX	---	---	XT5LU340AKFF000XXX
500	---	---	---	XT5LU350BKFF000XXX



XT6 800A - Fixed (F) - 3 poles without lugs (see lugs on page 6-29) - UL

	N	S	H
Interrupting rating @ 480Vac	35kA	50kA	65kA
In	Ordering Code	Ordering Code	Ordering Code
Thermal magnetic adjustable (TMA)			
600	XT6NU3600BFF000XXX	XT6SU3600BFF000XXX	XT6HU3600BFF000XXX
800A	XT6NU3800BFF000XXX	XT6SU3800BFF000XXX	XT6HU3800BFF000XXX
Ekip Dip LS/I trip unit			
600A (100% rated)	XT6NQ3600EFF000XXX	XT6SQ3600EFF000XXX	---
800	XT6NU3800EFF000XXX	XT6SU3800EFF000XXX	XT6HU3800EFF000XXX
800A (100% rated)	XT6NQ3800EFF000XXX	XT6SQ3800EFF000XXX	XT6HQ3800EFF000XXX
Ekip Dip LSI trip unit			
800	---	---	XT6HU3800GFF000XXX
800A (100% rated)	---	---	XT6HQ3800GFF000XXX
Molded case switch (MCS)			
800	---	---	XT6HU3800DFF000XXX

SACE® Tmax® XT molded case circuit breakers

XT7 base breakers



XT7 1200A - Fixed (F) - 3poles without lugs (see lugs on page 6-29) - UL

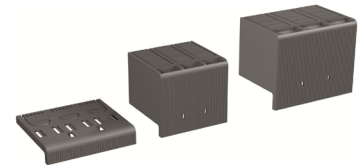
	S	H	L
Interrupting rating @ 480Vac	35kA	65kA	100kA
In	Ordering Code	Ordering Code	Ordering Code
Ekip Dip LS/I trip unit			
1000A (100% rated)	XT7SQ310DEFF000XXX	---	---
1200	XT7SU312EEFF000XXX	---	---
Ekip Dip LSI trip unit			
800	XT7SU380CFFF000XXX	XT7HU380CFFF000XXX	---
1000	XT7SU310DFFF000XXX	XT7HU310DFFF000XXX	---
1200	XT7SU312EFFF000XXX	XT7HU312EFFF000XXX	---
Ekip Dip LSIG trip unit			
1000	XT7SU310DGFF000XXX	XT7HU310DGFF000XXX	XT7LU310DGFF000XXX
Ekip M Dip I trip unit			
800	---	---	XT7LU380CKFF000XXX
Molded case switch (MCS)			
1200	---	XT7HU312EDFF000XXX	XT7LU312EDFF000XXX

Terminal kits, insulating kits and phase barriers

Terminal kits	Control Tap	Cable type	# cables and wire size	Wire size													Ordering Code					
XT5				4	3	2	1	1/0	2/0	3/0	4/0	250	300	350	400	500	600	700	750			
Front terminals (terminal nut insert only)																				KXT5F-3PC		
Extended front terminals																				KXT5EF-3PC		
Mechanical lug		Cu/Al	1x 4/0 AWG - 500 kcmil								•	•	•	•	•	•					KXT5CUAL500K-3PC	
Mechanical lug		Cu/Al	1x 350 - 750 kcmil												•	•	•	•	•	•	KXT5CUAL1X750KC-3	
Mechanical lug		Cu/Al	2x 2/0 AWG - 500 kcmil				•				•	•	•	•	•	•					KXT5CUAL2X500K-3PC	
Mechanical lug		Cu/Al	2x 500 - 750 kcmil												•	•	•	•			KXT5CUAL2X750KC-3	
Mechanical lug		x	Cu/Al	1x 4 AWG - 350 kcmil				•	•	•	•	•	•	•							KXT5CUAL350KC-3PC	
Mechanical lug		x	Cu/Al	1x 350 - 750 kcmil								•				•	•	•	•	•	KXT5CUAL1X750KCC-3	
Mechanical lug		x	Cu/Al	2x 2/0 AWG - 500 kcmil				•				•	•	•	•	•	•				KXT5CUAL2X500KC-3	
Mechanical lug		x	Cu/Al	2x 500 - 750 kcmil												•	•	•	•			KXT5CUAL2X750KCC-3
XT6				4	3	2	1	1/0	2/0	3/0	4/0	250	300	350	400	500	600	700	750			
Front terminals (terminal nut insert only)																				KXT6F-3PC		
Extended front terminals																				KXT6EF-3PC		
Mechanical lug		Cu/Al	2x 250 - 500 kcmil								•	•	•	•	•						KXT6CUAL2X500K-3PC	
Mechanical lug		Cu/Al	3x 2/0 AWG - 400 kcmil				•				•	•	•	•	•						KXT6CUAL3X400K-3PC	
Mechanical lug		x	Cu/Al	2x 250 - 500 kcmil								•	•	•	•	•						KXT6CUAL2X500KC-3
Mechanical lug		x	Cu/Al	3x 2/0 AWG - 400 kcmil				•				•	•	•	•	•						KXT6CUAL3X400KC-3
Mechanical lug		x	Cu/Al	2x 500 - 750 kcmil												•	•	•	•			KXT6CUAL2X750KCC-3
XT7				4	3	2	1	1/0	2/0	3/0	4/0	250	300	350	400	500	600	700	750			
Mechanical lug		Cu/Al	3x 500 - 750 kcmil												•	•	•	•			KXT7CUAL3X750KC-3	
Mechanical lug		Cu/Al	4x 4/0 AWG - 500 kcmil				•				•	•	•	•	•						KXT7CUAL4X500K-3PC	
Mechanical lug		Cu/Al	4x 4/0 AWG - 500 kcmil				•				•	•	•	•	•						KXT7CUAL4X500KC3PC	

SACE® Tmax® XT accessories

Terminal kits, insulating kits and phase barriers

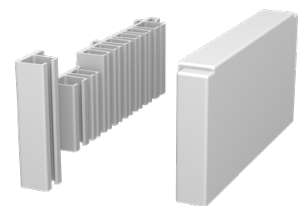


Optional insulating terminal covers	XT1	XT2	XT3	XT4	XT5	XT6	XT7
	KXT1LTC-3	KXT2LTC-3	KXT3LTC-3	KXT4LTC-3	KXT5LTC-3	---	---
HTC high terminal covers for front terminals	KXT1HTC-3	KXT2HTC-3	KXT3HTC-3	KXT4HTC-3	KXT5HTC-3	KXT6HTC-3	KXT7HTC2pcs-3
HTC_BS High terminal covers with back shield for extended front terminals	---	---	---	---	KXT5HTCBS-3	---	---

Phase barriers	XT1	XT2	XT3	XT4	XT5	XT6
PB height 25mm/0.98in	KXTBPPB25-3	KXTCPPB25-3	KXTBPPB25-3	KXTCPPB25-3	KXT5PB25UL-3	---
PB height 100mm/3.94in	KXTBPPB100-3	KXTCPPB100-3	KXTBPPB100-3	KXTCPPB100-3	KXT5PB100UL-3	KXT6PB100UL-3
PB height 200mm/7.87in	KXTBPPB200-3	KXTCPPB200-3	KXTBPPB200-3	KXTCPPB200-3	KXT5PB200UL-3	KXT6PB200UL-3
PS – Rear phase separators for FP	---	---	---	---	KXT5PBFP-3	---

	XT1	XT2	XT3	XT4
Din rail adapter	KXT1EDIN-3	KXT2DIN-3	---	KXT4DIN-3

	XT5	XT6
Cable Rack	KXTFACCRCK	KXTFACCRCK



Cable rack instruction sheet

SACE® Tmax® XT accessories

Electrical

Shunt trip (YO, SOR), pre-wired for fixed breakers

Voltage DC	Voltage AC	Ordering Code
XT1, XT2, XT3, XT4		
12V	-	KXTASORCFPA
24-30V	24-30V	KXTASORCFPB
110-125V	110-127V	KXTASORCFPD
220-250V	220-240V	KXTASORCFPE
-	480-525V	KXTASORCFPG
XT5, XT6		
12V	-	KXTFYOCFPA
24-60V	24-60V	KXTFYOCFPB
110-250V	110-250V	KXTFYOCFPD



Undervoltage release (UVR), pre-wired for fixed breakers

Voltage DC	Voltage AC	Ordering Code
XT1, XT2, XT3, XT4		
24-30V	24-30V	KXTAUVRCFP1
110-125V	110-127V	KXTAUVRCFP4
220-250V	220-240V	KXTAUVRCFP5
-	480-525V	KXTAUVRCFP7
XT5, XT6		
24-30V	24-30V	KXTFYUC1
110-125V	110-127V	KXTFYUC4
220-250V	220-240V	KXTFYUC5
-	480-525V	KXTFYUC7

SACE® Tmax® XT accessories

Electrical



Q	SY	S51	S52	XT1	XT2	XT3	XT4	XT5	XT6	XT7
# of contacts, 24V DC rated										
1	1							KXT5AUXCDQYFP ¹		
1	1			KXTAAXCDQSYFP	KXTAAXCDQSYFP	KXTAAXCDQSYFP	KXTAAXCDQSYFP	KXTAAXCDQSYFP	KXTAAXCDQSYFP	
3	1				KXTDAXCD3QSYFP	KXTDAXCD3QSYFP	KXTDAXCD3QSYFP	KXTDAXCD3QSYFP	KXTDAXCD3QSYFP	
	1									KXT7AUXDY
	1				KXTCAXDS51FP		KXTCAXDS51FP	KXTCAXDS51FP	KXTCAXDS51FP	
# of contacts, 250V AC rated										
1	1							KXT5AUXC2QYFP ¹		
1	1			KXTAAXCQSYFP	KXTAAXCQSYFP	KXTAAXCQSYFP	KXTAAXCQSYFP	KXTAAXCQSYFP	KXTAAXCQSYFP	
2	1			KXTAAXC2QSYFP	KXTAAXC2QSYFP	KXTAAXC2QSYFP	KXTAAXC2QSYFP	KXTAAXC2QSYFP	KXTAAXC2QSYFP	
2	2	1			KXTCAXC2Q2SYS51FP		KXTCAXC2Q2SYS51FP			
3	1				KXTDAXC3QSYFP	KXTDAXC3QSYFP	KXTDAXC3QSYFP	KXTDAXC3QSYFP	KXTDAXC3QSYFP	
3	2				KXTCAXC3Q2SYFP		KXTCAXC3Q2SYFP			
3				KXT1AXC3QL ¹	KXTCAXC3QL ¹	KXT3AXC3QL ¹	KXTCAXC3QL ¹			
	1				KXTCAXCS51FP		KXTCAXCS51FP	KXTCAXCS51FP	KXTCAXCS51FP	
# of contacts, 400V AC rated										
1	1				KXTCAXC4QSYFP		KXTCAXC4QSYFP	KXT5AUXC4QYFP		
2					KXTCAXC42QFP		KXTCAXC42QFP	KXT5AUXC4Q2FP		
	1									KXT7AUX4Y

¹ to be installed on left side of the breaker, consult compatible accessories in technical catalog

- open/closed (Q): indication of the status of the circuit-breaker power contacts;
- trip (SY): signals that the circuit-breaker is opening due to the intervention of the trip unit, or to the intervention residual current device, or to the opening of undervoltage/shunt opening releases, or to the use of the emergency opening pushbutton of the motor operator, or to the use of the test button;
- trip unit tripping (S51): indicates that one of the protection functions of the electronic or thermal-magnetic trip unit has tripped. In case of the Tmax XT5 equipped with thermal-magnetic trip unit and residual current device, S51 is activated also by the intervention of the residual current device.
- YO/YU tripping (S52): indicates that the under voltage or shunt opening release has been activated.
The signaling depends on the service release used. For Tmax XT6 S52 can be used only with YU and is not available for YO. For Tmax XT5, in case of YO, shunt opening release must be permanently supplied to maintain the S52 signal.

SACE® Tmax® XT accessories

Electrical



Stored energy motor operator

Rated voltage	XT1-XT3	XT2-XT4	XT5	XT6
MOE Motor operator				
24V DC	KXTBMOD24	KXTCMOE24	KXT5MOE24	KXT6MOE24
110...125V AC/DC	KXTBMOD110-125	KXTCMOE110-125	KXT5MOE110-125	KXT6MOE110-125
220...250V AC/DC	KXTBMOD220-250	KXTCMOE220-250	---	---
480...525V AC	---	KXTCMOE480-525	---	---
MOE-E Motor operator to be used with Ekip Com communication modules				
24V DC	---	KXTCMOEE24	KXT5MOEE24	---
110...125V AC/DC	---	KXTCMOEE110-125	KXT5MOEE110-125	---

External neutral current sensor	XT1	XT2	XT3	XT4	XT5	XT6
CT External neutral 100A Ekip Dip	---	KXT2ECT100	---	---	---	---
CT External neutral 250A Ekip Dip	---	---	---	KXT4ECT250	---	---
CS External neutral 300A Ekip Dip	---	---	---	---	KXT5CTUDIPA300	---
CS External neutral 400A Ekip Dip	---	---	---	---	KXT5CTUDIPA400	---
CS External neutral 600A Ekip Dip	---	---	---	---	KXT5CTUDIPA600	KXT6CTUDIPA600
CS Internal neutral 800A Ekip Dip	---	---	---	---	---	KXT6CTUDIPA800

Rating Plugs	XT1	XT2	XT3	XT4	XT5	XT6	XT7
Rating plug in = 800 A XT7-XT7 M (Type A)	---	---	---	---	---	---	KXT7RP800ULA
Rating plug in = 800 A XT7-XT7 M (Type B)	---	---	---	---	---	---	KXT7RP800ULB
Rating plug in = 1000 A XT7-XT7 M (Type A)	---	---	---	---	---	---	KXT7RP1000ULA
Rating plug in = 1000 A XT7-XT7 M (Type B)	---	---	---	---	---	---	KXT7RP1000ULB
Rating plug in = 1200 A XT7-XT7 M (Type B)	---	---	---	---	---	---	KXT7RP1200ULB

SACE® Tmax® XT accessories

Manual operators



Direct Rotary handles	XT1	XT2	XT3	XT4	XT5	XT6	XT7
RHD Standard Direct Handle	KXTBRHDSTFP	KXTCRHDSTFP	KXTBRHDSTFP	KXTCRHDSTFP	KXT5RHDSTFP	KXT6RHDSTFP	---
RHD Emergency Direct Handle	---	KXTCRHDEMFP	---	KXTCRHDEMFP	---	---	---
RHS-R Standard Right Side Handle	KXTBRHSRSTFP	KXTCRHSRSTFP	KXTBRHSRSTFP	KXTCRHSRSTFP	---	---	---

Rotary operators - through-door	XT1 - XT2 - XT3 - XT4	XT5	XT6	XT7
RHE_MB Metallic base for transmitted handle	KXTMRHESTFP	KXT5MRHESTFP	KXT6MRHESTFP	KXT7MRHEST
Standard Pistol Hdl w/reset, 65mm, NEMA 3R,12	OHB65J10B	OHB65J10B	OHB65J10B	OHB65J10B
Emerg. Pistol Hdl w/reset, 65mm, NEMA 3R,12	OHY65J10B	OHY65J10B	OHY65J10B	OHY65J10B
Standard Pistol Hdl w/reset, 65mm, NEMA 4,4X	OHB65L10B	OHB65L10B	OHB65L10B	OHB65L10B
Emerg. Pistol Hdl w/reset, 65mm, NEMA 4, 4X	OHY65L10B	OHY65L10B	OHY65L10B	OHY65L10B
Standard Pistol Hdl w/reset, 125mm, NEMA 3R,12	OHB125J10B	OHB125J10B	OHB125J10B	OHB125J10B
Emerg. Pistol Hdl w/reset, 125mm, NEMA 3R,12	OHY125J10B	OHY125J10B	OHY125J10B	OHY125J10B
Standard Pistol Hdl w/reset, 125mm, NEMA 4,4X	OHB125L10B	OHB125L10B	OHB125L10B	OHB125L10B
Emerg. Pistol Hdl w/reset, 125mm, NEMA 4,4X	OHY125L10B	OHY125L10B	OHY125L10B	OHY125L10B
148mm Pistol Hdl Shaft	EXP10X148	EXP10X148	EXP10X148	EXP10X148
225mm Pistol Hdl Shaft	EXP10X225	EXP10X225	EXP10X225	EXP10X225
500mm Pistol Hdl Shaft	EXP10X500	EXP10X500	EXP10X500	EXP10X500
Shaft Support for RHE_MB	KXTMRHESS	---	---	---

Flange handles(1)		XT-XT2-XT3-XT4	XT5	XT6	XT7
Mechanism	-	KXTAFLHDLMECH	KXT5FLHDLMECH	KXT6FLHDLMECH	KXT7FLHDLMECH
Handle	NEMA 12/3R	KXTAFLHDL6IN	KXTAFLHDL6IN	KXTAFLHDL6IN	KXTBFLHDL10IN
	NEMA 4/4X	KXTAFLHDL6IN4X	KXTAFLHDL6IN4X	KXTAFLHDL6IN4X	KXTBFLHDL10IN4X
Cable	3ft	SC3L	SC3L	SC3L	SC3H
	4ft	SC4L	SC4L	SC4L	SC4H
	6ft	SC6L	SC6L	SC6L	SC6H
	8ft	SC8L	SC8L	SC8L	SC8H
	10ft	SC10L	SC10L	SC10L	SC10H

(1) requires mechanism, handle and cable for complete solution

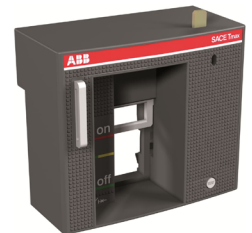
SACE® Tmax® XT accessories

Handles and accessories

Toggle extensions	XT5	XT6	XT7
Toggle extension	KXTJTGLEXT	KXTJTGLEXT	---
Toggle extension - foldable	---	---	KXT7TGLEXT



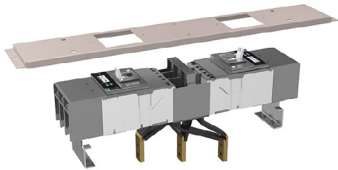
Padlock provisions	XT1	XT2	XT3	XT4	XT5	XT6	XT7
Removable in open position	KXTBPLLREM	---	KXTBPLLREM	---	---	---	---
Fixed	KXTBPLLOP	KXTCPLLOP	KXTBPLLOP	KXTCPLLOP	KXT5PLLOP	KXT6PLLOP	KXT7PLLOP
Fixed in open/closed position	KXTBPLLOPCL	KXTCPLLOPCL	KXTBPLLOPCL	KXTCPLLOPCL	KXT5PLLOPLC	KXT6PLLOPLC	---



Operating lever mechanisms and locks	XT1	XT2	XT3	XT4	XT5	XT6	XT7
FLD Front for operating lever mechanism	---	KXTCFLDFP	---	KXTCFLDFP	KXT5FLDFP	KXT6FLDFP	---
FLD Front for operating lever mechanism (withdrawal)	---	---	---	---	KXT5FLDW	KXT6FLDW	---
KLC-A Kirk key lock provision	---	---	---	---	KXTFKLCAKIRK	KXTFKLCAKIRK	---

SACE® Tmax® XT accessories

Retrofit kits



Retrofit kit for Spectra bolt-on panelboards and switchboards	XT1		XT4		XT5		XT7	
	Box width range/ X height		Box width range/ X height		Box width range/ X height		Box width range/ X height	
Single mount kit	---	---	SRFB3XT4FPX	27"-44" / 3X	SRFB3XT5MFPX ¹	27"-44" / 4X	SRFB3XT7MFPX	40"-44" / 6X
Dual mount kit	SRFB6XT1FPX	27"-44" / 3X	SRFB6XT4FPX	31"-44" / 3X	SRFB6XT5BFPX ²	40"-44" / 4X	---	---

¹ 600A
² 400A

Maximum of two SACE Tmax XT4, XT5 or XT7 retrofit kits can be installed side by side in an existing Spectra power panelboard installation
Tmax XT5 can only be dual mounted up to 400A
If Kirk provisions are required, replace the „X“ (last digit) with „K“ (example: SRFB6XT1FPX becomes SRFB6XT1FPK)
Kits are only for use with 80% rated breakers
XT7 breaker handle extension included with SRFB3XT7MFPX
XT7 retrofit kit can be used for main or feeder breakers

Enclosed circuit breakers

Breakers and accessories

NEMA Enclosures (breaker not included)

NEMA rating	Mounting	Formula A2	XT1	XT2	XT3	XT4	XT5	XT6	XT7
1	Flush	A2ENCL250F	XT1ENCL125F	XT2ENCL125F	---	XT4ENCL250F	---	---	---
1	Surface	A2ENCL250S	XT1ENCL125S	XT2ENCL125S	XT3ENCL225S	XT4ENCL250S	XT5ENCL600S	XT6ENCL800S	XT7ENCL1200S
12	Surface	---	XT1ENCL125J	XT2ENCL125J	---	---	---	---	---
3R	Surface	A2ENCL250R	XT1ENCL125R	---	XT3ENCL225R	XT4ENCL250R	XT5ENCL600R	XT6ENCL800R	XT7ENCL1200R
4/4X	Surface	---	XT1ENCL125CS	---	XT3ENCL225CS	XT4ENCL250CS	XT5ENCL600CS	XT6ENCL800CS	---

Formula A2 NEMA Enclosed Breakers

Description	Ordering Code
NEMA 3R, surface mount, 2 pole 150A Circuit Breaker Factory Installed	A2A250W150ECB
NEMA 3R, surface mount, 2 pole 200A Circuit Breaker Factory Installed	A2A250W200ECB

Formula breaker rated 10kA at 240v

Accessories - Ground kits

Description	Ordering Code
70-125A	TGL1
150-400A	TGL1 + TGL20
600-1200A	TGL6

TEY molded case circuit breakers

Ordering code construction



Part identifier

TEY = 14kA@227V

TEYF = 18kA@277V

TEYD = 25kA@277V

TEYL = 65kA@277V

Poles

1 = 1 Pole

2 = 2 Pole

3 = 3 Pole

Mounting suffix

= Bot-on (14-18kA)

B = Bolt-on (25-65kA)

Amps

15 = 15 Amps

20 = 20 Amps

25 = 25 Amps

30 = 30 Amps

35 = 35 Amps

40 = 40 Amps

45 = 45 Amps

50 = 50 Amps

60 = 60 Amps

70 = 70 Amps

80 = 80 Amps

90 = 90 Amps

100 = 100 Amps

110 = 110 Amps

125 = 125 Amps

Note: For available configurations, see the ordering information pages

Reference only. For stocked items, see following pages.

TEY molded case circuit breakers

Breakers



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

Ampere	Wire range	Ordering Code	Ordering Code
Single Pole - Includes Integral Cu/Al Load Lugs		Type TEY 14kA @ 277 Vac	Type TEYF 18kA @ 277 Vac
15	#14-#10	TEY115	---
20	#14-#10	TEY120	TEYF120
25	#14-#10	TEY125	---
30	#14-#10	TEY130	---
35	#10-#4	TEY135	---
40	#10-#4	TEY140	---
45	#10-#4	TEY145	---
50	#10-#4	TEY150	---
60	#10-#4	TEY160	---
100	#4-1/0	TEY1100	---

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

Ampere	Wire range	Ordering Code	Ordering Code
Two-Pole - Includes Integral Cu/Al Load Lugs		Type TEY 14kA @ 480/ 277 Vac	Type TEYF 18kA @ 480/ 277 Vac
15	#14-#10	TEY215	TEYF215
20	#14-#10	TEY220	TEYF220
25	#14-#10	TEY225	TEYF225
30	#14-#10	TEY230	---
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

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

Ampere	Wire range	Ordering Code	Ordering Code
Three-Pole - Includes Integral Cu/Al Load Lugs		Type TEY 14kA @ 480/ 277 Vac	Type TEYF 18kA @ 480/ 277 Vac
15	---	TEY315	TEYF315
20	---	TEY320	TEYF320
25	---	TEY325	TEYF325
30	---	TEY330	TEYF330
35	---	TEY335	TEYF335
40	---	TEY340	TEYF340
45	---	TEY345	---
50	---	TEY350	TEYF350
60	---	TEY360	TEYF360
70	---	TEY370	TEYF370
80	---	TEY380	TEYF380
90	---	TEY390	TEYF390

Table continues on next page.

TEY molded case circuit breakers

Breakers



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

Ampere	Wire range	Ordering Code	Ordering Code
Three-Pole - Includes Integral Cu/Al Load Lugs		Type TEY 14kA @ 480 / 277 Vac	Type TEYF 18kA @ 480 / 277 Vac
100	---	TEY3100	TEYF3100
110	---	---	---
125	---	---	TEYF3125B

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

Ampere	Wire range	Ordering Code	Ordering Code	Ordering Code
Single pole w/lugs Includes integral Cu/Al load lugs		Type TEYD 25kA @ 480 / 277 Vac	Type TEYD 35kA @ 480 / 277 Vac	Type TEYD 65kA @ 480 / 277 Vac
15	#14-#10	TEYD1015B	TEYH1015B	TEYL1015B
20	#14-#10	TEYD1020B	TEYH1020B	TEYL1020B
25	#10-#4	---	---	TEYL1025B
30	#10-#4	TEYD1030B	---	TEYL1030B
40	#10-#4	---	---	TEYL1040B
50	#10-#4	---	---	TEYL1050B

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

Ampere	Wire range	Ordering Code	Ordering Code	Ordering Code
Two pole w/lugs Includes integral Cu/Al load lugs		Type TEYD 25kA @ 480 / 277 Vac	Type TEYD 35kA @ 480 / 277 Vac	Type TEYD 65kA @ 480 / 277 Vac
15	#14-#10	TEYD2015B	---	TEYL2015B
20	#14-#10	TEYD2020B	---	TEYL2020B
30	#10-#4	---	---	TEYL2030B
40	#10-#4	TEYD2040B	---	---
125	#4-2/0	---	---	TEYL2125B

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

Ampere	Wire range	Ordering Code	Ordering Code	Ordering Code
Three w/lugs Includes integral Cu/Al load lugs		Type TEYD 25kA @ 480 / 277 Vac	Type TEYD 35kA @ 480 / 277 Vac	Type TEYD 65kA @ 480 / 277 Vac
15	#14-#10	TEYD3015B	TEYH3015B	TEYL3015B
20	#14-#10	TEYD3020B	TEYH3020B	TEYL3020B
25	#10-#4	TEYD3025B	---	TEYL3025B
30	#10-#4	TEYD3030B	TEYH3030B	TEYL3030B
35	#10-#4	TEYD3035B	---	TEYL3035B
40	#10-#4	TEYD3040B	TEYH3040B	TEYL3040B
45	#10-#4	TEYD3045B	---	TEYL3045B
50	#10-#4	TEYD3050B	---	TEYL3050B
60	#10-#4	TEYD3060B	TEYH3060B	TEYL3060B
70	#4-2/0	TEYD3070B	TEYH3070B	TEYL3070B
80	#4-2/0	---	---	TEYL3080B
90	#4-2/0	TEYD3090B	---	TEYL3090B
100	#4-2/0	TEYD3100B	TEYH3100B	TEYL3100B
110	#4-2/0	---	---	TEYL3110B
125	#4-2/0	TEYD3125B	---	TEYL3125B

TEY Accessories

Accessories

Description	Ordering Code
Variable depth operating mechanism/handles	
TEYD/H/L 2-POLE HANDLE TIE	TEYXHT2
TEYD/H/L 3-POLE HANDLE TIE	TEYXHT3
TEYDHL PADLOCKING DEVICE	TEYXPLD1
TEY HANDLE LOCK	TEYLD1
E150 PADLOCK KIT	TEYPLD1
TEYD/H/L 2-POLE HANDLE TIE	TEYXHT2
TEYD/H/L 3-POLE HANDLE TIE	TEYXHT3
TEYDHL PADLOCKING DEVICE	TEYXPLD1

—

7

Panelboards

Section 7

Panelboards

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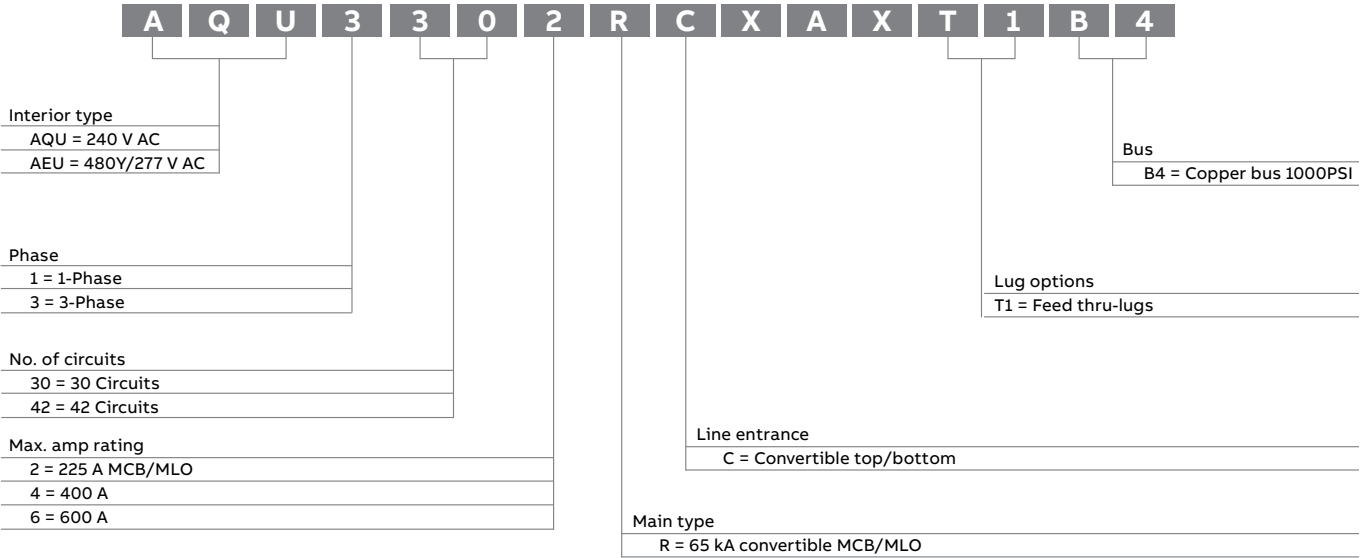
ReliaGear® Merchandised neXT SuperBox Power Panelboards

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ReliaGear® neXT circuit breaker testing fixture

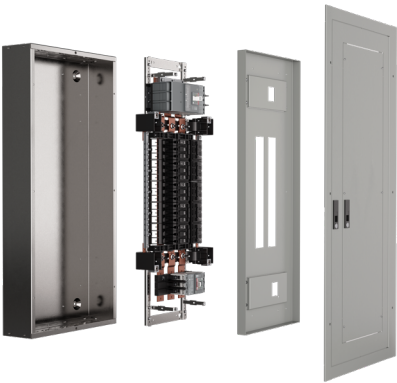
ReliaGear® neXT circuit breaker testing fixture	7-18
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ReliaGear® Merchandised Lighting Panelboards
Ordering code construction



ReliaGear® Merchandised Lighting Panelboards

Step 1: Select Interior



Select the interior by panel rating, number of circuits and ampacity. Identify the box/front height for interior selected.

Feed-thru copper bus

Voltage	Rating (amps)	No. of circuits	Ordering code ¹	Box/front height (in.)	No. of TGL2 ground bars required ²
240 V AC, 1-Phase	100–225	30	AQU1302RCXAXT1B4	43.5	3
		42	AQU1422RCXAXT1B4	49.5	4
	400	42	AQU1424RCXAXT1B4	76.5	4
		42	AQU1426RCXAXT1B4	76.5	4
208Y/120 V AC, 3-Phase	100–225	30	AQU3302RCXAXT1B4	43.5	3
		42	AQU3422RCXAXT1B4	49.5	4
	400	42	AQU3424RCXAXT1B4	76.5	4
		42	AQU3426RCXAXT1B4	76.5	4
480Y/277 V AC, 3-Phase	100–225	30	AEU3302RCXAXT1B4	43.5	3
		42	AEU3422RCXAXT1B4	49.5	4
	400	42	AEU3424RCXAXT1B4	76.5	4
		42	AEU3426RCXAXT1B4	76.5	4

¹ See table below for TGL20 ground lug quantities.

² For isolated ground, use EGS12. When using the EGS12, 5 and 7 ground lugs (TGL20s) are required for 30 and 42 circuit panels respectively.

³ 600 A available as main lug only.

TGL20 ground lugs required by panel type

Interior type	100-225 A	400 A	600 A
Main lug only	1	1	2
Main lug and sub-feed	2	2	4
Main lug and feed-thru	2	2	4
Main breaker only	1	1	
Main breaker and sub-feed	2	2	
Main breaker and feed-thru	2	2	

ReliaGear® Merchandised Lighting Panelboards

Step 2-3: Select Box and Front



Select a 20" wide box of correct height based on interior selected on Page 7-2.

Note: Boxes come with blank endwalls.

Box height (in.)	NEMA 1 ordering code	NEMA 3R ordering code
43.5	AB43B	AB433
49.5	AB49B	AB493
76.5	AB76B	AB763



For NEMA 1 enclosures only, select a front of correct height based on interior selected on Page 7-2 and box selected above.

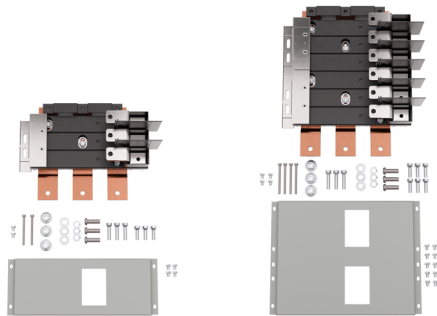
- Standard fronts are equipped with concealed hinges and trim adjusting screws hinges, trim adjusting screws and quarter-turn locks
- Door within door fronts are convenient for easy access to equipment from the front of the panel as it allows access to the gutters without removing the front
- Front hinged to box fronts are similar to door within door fronts for convenient access to gutters, but four screws must be removed to access the outer door

Front height (in.)	Standard	Standard	Door within door	Front hinged to box
	Flush ordering code	Surface ordering code	Surface ordering code	Surface ordering code
43.5	AF43F	AF43S	AF43SP	AF43SD
49.5	AF49F	AF49S	AF49SP	AF49SD
76.5 ¹⁾	AF76FT	AF76ST	AF76SPT	AF76SDT

1) 76.5" fronts include quarter-turn lock, enabling applications with XT5 circuit breakers

ReliaGear® Merchandised Lighting Panelboards

Step 4: Select main and/or sub-feed breaker kit(s)



MBA13

MBA16

Select the main breaker kit appropriate for your interior type, amp rating and kAIC rating. If a sub-feed breaker is required, repeat the selection process.

Interior type	Ordering code ¹	Rating (amps)	No. of poles	Breaker short circuit rating (kAIC)						
				10	14	22	25	35	50	65
AQU1: 240 V AC, 1-Phase	MB612	100	2	THQB	–	THHQB	–	–	–	–
	MB614	100	4	(x2) THQB	–	(x2) THHQB	–	–	–	–
	MBA12	225	2	A2A	–	A2N2	–	–	–	–
	MBM324	400	2	–	–	–	–	–	–	XT5N
AQU3: 208Y/120 V AC, 3-Phase	MB613	100	3	THQB	–	THHQB	–	–	–	–
	MB616 ⁴	100	6	(x2) THQB	–	(x2) THHQB	–	–	–	–
	MBA13	225	3	A2A	–	A2N ²	–	–	–	–
	MBA16	400	6	(x2) A2A	–	(x2) A2N ²	–	–	–	–
	MBB33	150	3	–	–	–	–	–	–	XT4N
	MBB33	225	3	–	–	–	–	–	–	XT4N
	MBB36 ³	400	6 ³	–	–	–	–	–	–	(x2) XT4N
	MBM334	400	3	–	–	–	–	–	–	XT5N
AEU3: 480Y/277 V AC, 3-Phase	MB423	100	3	–	TEY	–	–	–	–	–
	MB426	100	6	–	(x2) TEY	–	–	–	–	–
	MBC33	125	3	–	–	–	XT1N	XT1S	–	XT1H
	MBB33	150	3	–	–	–	XT4N	XT4S	–	XT4H
	MBB33	225	3	–	–	–	XT4N	XT4S	–	XT4H
	MBB36 ³	400	6 ³	–	–	–	(x2) XT4N	(x2) XT4S	–	(x2) XT4H
		MBM334	400	3	–	–	–	–	XT5N	XT5S

¹ Breaker not included

² Actual breaker short circuit rating is 25 kAIC

³ 6 poles of sub-feed applies only to 400 A and 600 A interiors

⁴ Can use (2) 3-pole devices only, no 2-pole allowed

ReliaGear® Merchandised Lighting Panelboards

Step 5: Select main and/or sub-feed circuit breaker(s)

To correlate breaker types with the kAIC rating in specific panelboards, see the table for Step 4. For THQB and TEY main breakers, see branch breakers tables in Step 7.

Tmax® XT breakers (3-pole) for use with appropriate main breaker or sub-feed breaker kit.

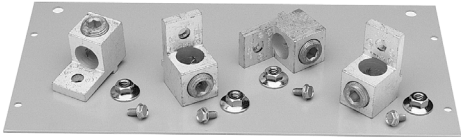
240 V kAIC	480 V kAIC	Breaker description	Wire range (Cu/Al)	Cables per lug	Ordering code
65	65	XT1H 125 TMF 30 amps 3P	Cu Al 1x14–2/0 AWG	1	XT1HU3030AFD000XXX
65	65	XT1H 125 TMF 60 amps 3P	Cu Al 1x14–2/0 AWG	1	XT1HU3060AFD000XXX
65	65	XT1H 125 TMF 100 amps 3P	Cu Al 1x14–2/0 AWG	1	XT1HU3100AFD000XXX
65	65	XT1H 125 TMF 125 amps 3P	Cu Al 1x14–2/0 AWG	1	XT1HU3125AFD000XXX
65	35	XT1S 125 TMF 100 amps 3P	Cu Al 1x14–2/0 AWG	1	XT1SU3100AFD000XXX
65	65	XT4H 250 TMF 150 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4HU3150AFJ000XXX
65	65	XT4H 250 TMF 200 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4HU3200AFJ000XXX
65	65	XT4H 250 TMF 225 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4HU3225AFJ000XXX
65	35	XT4S 250 TMF 175 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4SU3175AFJ000XXX
65	35	XT4S 250 TMF 200 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4SU3200AFJ000XXX
65	35	XT4S 250 TMF 225 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4SU3225AFJ000XXX
65	25	XT4N 250 Ekip DIP 60–150 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4NU3150FFJ000XXX
65	35	XT4S 250 Ekip DIP 100–250 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4SU3250FFL000XXX
65	65	XT4H 250 Ekip DIP 100–250 amps 3P	Cu Al 1x4 AWG–300 kcmil	1	XT4HU3250FFL000XXX
65	65	XT5H 400 TMA 400 amps 3P	Cu Al 2x2/0 AWG–500 kcmi	2	XT5HU340ABFN000XXX
65	50	XT5S 400 TMA 300 amps 3P	Cu Al 2x2/0 AWG–500 kcmi	2	XT5SU330ABFN000XXX
65	50	XT5S 400 TMA 400 amps 3P	Cu Al 2x2/0 AWG–500 kcmi	2	XT5SU340ABFN000XXX
65	35	XT5N 400 Ekip DIP 16–400 amps 3P	Cu Al 2x2/0 AWG–500 kcmi	2	XT5NU340AFFN000XXX
65	65	XT5H 400 Ekip DIP 16–400 amps 3P	Cu Al 2x2/0 AWG–500 kcmi	2	XT5HU340AFFN000XXX

Main or sub-feed breakers for use with RQ panels (208Y/120 V AC 3-phase or 240 V AC 1-phase).

Amp rating	2-pole		3-pole	
	10 kAIC	22 kAIC	10 kAIC	22 kAIC
	Ordering code	Ordering code	Ordering code	Ordering code
125	A2A125TL-2	A2N125TL-2	A2A125TT	A2N125TT
150	A2A150TL-2	A2N150TL-2	A2A150TT	A2N150TT
175	A2A175TL-2	A2N175TL-2	A2A175TT	A2N175TT
200	A2A200TL-2	A2N200TL-2	A2A200TT	A2N200TT
225	A2A225TL-2	A2N225TL-2	A2A225TT	A2N225TT

ReliaGear® Merchandised Lighting Panelboards

Step 6: Select main and/or feed-thru lug kit(s)



Select lug kit(s) for main lug and/or feed-thru applications, if required.

Main lug kits

Lug type	Amp rating	Wire range	Ordering code	200% Neutral ordering code
Mechanical	225	Standard: 6–350 kcmil	MLA1	NKA
	225	Oversized: 1–600 kcmil or (2) 1/0–250 kcmil	MLA2	
	400	Standard: 2–600 kcmil or (2) 1/0–250 kcmil	MLA41	NK4A ¹
	400	Oversized: 3/0–800 kcmil	MLA62	
	600	Standard: (2) 2/0–500 kcmil	MLA61	–
	600	Oversized: 3/0–800 kcmil	MLA62	

¹ For 200% neutral feed-thru, order NKA4FT, (GO-101P). Wire range (2) 2/0–600 kcmil or (4) 4–250 kcmil.

ReliaGear® Merchandised Lighting Panelboards

Step 7: Select bolt-on branch circuit breakers

Select branch circuit breakers from the tables below.

- THQB and THHQB breakers are only compatible with RQ panels.
- TEY and TEYF breakers are only compatible with RE panels.

Branch circuit breakers for use with RQ panels (208Y/120 V AC 3-phase or 240 V AC 1-phase)

Amp rating	10 kAIC			22 kAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code
15	THQB1115 ^{1,2,3,4}	THQB2115 ^{1,4}	THQB32015	THHQB1115 ^{1,2,3,4}	THHQB2115 ^{1,4}	THHQB32015
20	THQB1120 ^{1,2,3,4}	THQB2120 ^{1,4}	THQB32020	THHQB1120 ^{1,2,3,4}	THHQB2120 ^{1,4}	THHQB32020
25	THQB1125 ¹	THQB2125 ¹	THQB32025	THHQB1125 ¹	THHQB2125 ⁴	THHQB32025
30	THQB1130 ^{1,4}	THQB2130 ^{1,4}	THQB32030	THHQB1130 ^{1,4}	THHQB2130 ^{1,4}	THHQB32030
35	THQB1135	THQB2135	THQB32035	THHQB1135	THHQB2135	THHQB32035
40	THQB1140	THQB2140 ⁴	THQB32040	THHQB1140	THHQB2140	THHQB32040
45	THQB1145	THQB2145	THQB32045	THHQB1145	THHQB2145	THHQB32045
50	THQB1150	THQB2150	THQB32050	THHQB1150	THHQB2150	THHQB32050
60	THQB1160	THQB2160	THQB32060	THHQB1160	THHQB2160	THHQB32060
70	THQB1170	THQB2170	THQB32070	THHQB1170	THHQB2170	THHQB32070
80	–	THQB2180	THQB32080	–	THHQB2180	THHQB32080
90	–	THQB2190	THQB32090	–	THHQB2190	THHQB32090
100	–	THQB21100	THQB32100	–	THHQB21100	THHQB32100

¹ For ground fault, add 'GFT' suffix to breaker SKU

² For AFCI, add 'AF2' suffix to breaker SKU

³ For AFCI/GFCI, add 'DF' suffix to breaker SKU

⁴ For equipment ground fault, add 'GFEP' suffix to breaker SKU

Branch circuit breakers for use with RE panels (480Y/277 V AC 3-phase)

Amp rating	14 kAIC			18 kAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code
15	TEY115	TEY215	TEY315	TEYF115	TEYF215	TEYF315
20	TEY120	TEY220	TEY320	TEYF120	TEYF220	TEYF320
25	TEY125	TEY225	TEY325	TEYF125	TEYF225	TEYF325
30	TEY130	TEY230	TEY330	TEYF130	TEYF230	TEYF330
35	TEY135	TEY235	TEY335	TEYF135	TEYF235	TEYF335
40	TEY140	TEY240	TEY340	TEYF140	TEYF240	TEYF340
45	TEY145	TEY245	TEY345	TEYF145	TEYF245	TEYF345
50	TEY150	TEY250	TEY350	TEYF150	TEYF250	TEYF350
60	TEY160	TEY260	TEY360	TEYF160	TEYF260	TEYF360
70	TEY170	TEY270	TEY370	–	TEYF270	TEYF370
80	TEY180	TEY280	TEY380	–	TEYF280	TEYF380
90	TEY190	TEY290	TEY390	–	TEYF290	TEYF390
100	TEY1100	TEY2100	TEY3100	–	TEYF2100	TEYF3100

ReliaGear® Lighting Panelboards

Branch breakers for RQ panels

THQB and THHQB branch circuit breakers for use with RQ panels (208/120 V AC 3-phase)

Amp rating	10 kAIC			22 kAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code
15	THQB1115 ⁽¹⁾	THQB2115 ⁽¹⁾	THQB32015	THHQB1115	THHQB2115	THHQB32015
20	THQB1120 ^(1,2,3)	THQB2120 ^(1,3)	THQB32020	THHQB1120 ⁽¹⁾	THHQB2120 ⁽¹⁾	THHQB32020
25	THQB1125	THQB2125	THQB32025	THHQB1125	THHQB2125	THHQB32025
30	THQB1130 ^(1,3)	THQB2130 ^(1,3)	THQB32030	THHQB1130	THHQB2130 ⁽¹⁾	THHQB32030
35	THQB1135	THQB2135	THQB32035	–	THHQB2135	THHQB32035
40	THQB1140	THQB2140 ⁽³⁾	THQB32040	THHQB1140	THHQB2140	THHQB32040
45	–	THQB2145	THQB32045	–	–	THHQB32045
50	THQB1150	THQB2150	THQB32050	THHQB1150	THHQB2150	THHQB32050
60	THQB1160	THQB2160	THQB32060	–	THHQB2160	THHQB32060
70	–	THQB2170	THQB32070	–	–	THHQB32070
80	–	THQB2180	THQB32080	–	THHQB2180	THHQB32080
90	–	THQB2190	THQB32090	–	–	THHQB32090
100	–	THQB21100	THQB32100	–	THHQB21100	THHQB32100

⁽¹⁾ For ground fault, add 'GFT' suffix to breaker SKU
⁽²⁾ For AFCI, add 'AF2' suffix to breaker SKU
⁽³⁾ For equipment ground fault, add 'GFEP' suffix to breaker SKU

ReliaGear® Lighting Panelboards

Branch breakers for RE panels

TEY and TEYF branch circuit breakers for use with RE panels (480Y/277 V AC 3-phase)

Amp rating	14 kAIC			18 KAIC		
	1-pole	2-pole	3-pole	1-pole	2-pole	3-pole
	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code	Ordering code
15	TEY115	TEY215	TEY315	–	TEYF215	TEYF315
20	TEY120	TEY220	TEY320	TEYF120	TEYF220	TEYF320
25	TEY125	TEY225	TEY325	–	TEYF225	TEYF325
30	TEY130	TEY230	TEY330	–	TEYF230	TEYF330
35	TEY135	TEY235	TEY335	–	TEYF235	TEYF335
40	TEY140	TEY240	TEY340	–	TEYF240	TEYF340
45	TEY145	TEY245	TEY345	–	TEYF245	TEYF345
50	TEY150	TEY250	TEY350	–	TEYF250	TEYF350
60	TEY160	TEY260	TEY360	–	TEYF260	TEYF360
70	–	TEY270	TEY370	–	TEYF270	TEYF370
80	–	TEY280	TEY380	–	TEYF280	TEYF380
90	–	TEY290	TEY390	–	TEYF290	TEYF390
100	–	TEY2100	TEY3100	–	TEYF2100	TEYF3100

ReliaGear® Merchandised neXT SuperBox Power Panelboards

SuperBox panels



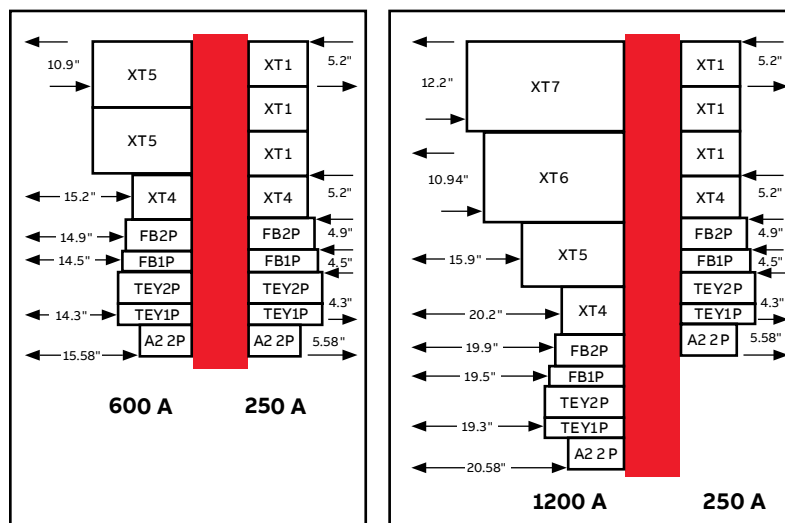
ReliaGear® neXT SuperBox Power Panelboards

Ordering code	Description	Amps	Enclosure type	Main	Dimensions (H x W x D inches)	X-space left	X-space right
RNSB06L6040A	600A MLO NEMA 1 60 x 40 16X no breakers	600 A	NEMA 1	Main lugs (2x #2–600 kcmil)	60 x 40 x 11	12	12
RNSB06B6040A	600A MCB NEMA 1 60 x 40 16X no breakers	600 A	NEMA 1	Main breaker ¹	61 x 40 x 11	16	16
RNSB06L6040R	600A MLO NEMA 3R 60 x 40 16X no breakers	600 A	NEMA 3R	Main lugs (2x #2–600 kcmil)	59 x 40 x 14.5 ²	12	12
RNSB06B6040R	600A MCB NEMA 3R 60 x 40 16X no breakers	600 A	NEMA 3R	Main breaker ¹	60 x 40 x 14.5 ²	16	16
RNSB08L7245A	800A MLO NEMA 1 72 x 45 24X no breakers	800 A	NEMA 1	Main lugs (4x #2–600 kcmil)	72 x 45 x 11	20	20
RNSB08B7245A	800A MCB NEMA 1 72 x 45 24X no breakers	800 A	NEMA 1	Main breaker ¹	73 x 45 x 11	24	24
RNSB08L7245R	800A MLO NEMA 3R 72 x 45 24X no breakers	800 A	NEMA 3R	Main lugs (4x #2–600 kcmil)	71 x 45 x 14.5 ²	20	20
RNSB08B7245R	800A MCB NEMA 3R 72 x 45 24X no breakers	800 A	NEMA 3R	Main breaker ¹	72 x 45 x 14.5 ²	24	24
RNSB12L8445A	1200A MLO NEMA 1 84 x 45 32X no breakers	1200 A	NEMA 1	Main lugs (4x #2–600 kcmil)	84 x 45 x 11	28	28
RNSB12B8445A	1200A MCB NEMA 1 84 x 45 32X no breakers	1200 A	NEMA 1	Main breaker ¹	85 x 45 x 11	32	32
RNSB12L8445R	1200A MLO NEMA 3R 84 x 45 32X no breakers	1200 A	NEMA 3R	Main lugs (4x #2–600 kcmil)	83 x 45 x 14.5 ²	28	28
RNSB12B8445R	1200A MCB NEMA 3R 84 x 45 32X no breakers	1200 A	NEMA 3R	Main breaker ¹	84 x 45 x 14.5 ²	32	32

¹ X-space required for main breaker must be accounted for based on specific breaker selected.

² Depth does not include 0.9" of hanger bracket.

Available configurations and wire bend space



40" offset box

45" offset box

All ReliaGear® neXT panelboards are double sided. Wire bending space requirements restrict XT5–XT7 mounting to the left side of the interior.

Wire bend space

Breaker	Left mount space (in)	Right mount space (in)
40" offset enclosure		
XT5	10.9	–
XT4	15.2	5.2
XT1	15.2	5.2
FB 1-pole	14.5	4.5
FB 2-pole	14.9	4.9
TEY 1-pole	14.3	4.3
TEY 2-pole	14.3	4.3
A2 2-pole	15.58	5.58
45" offset enclosure		
XT7	12.2	–
XT6	10.94	–
XT5	15.9	–
XT4	20.2	5.2
XT1	20.2	5.2
FB 1-pole	19.5	4.5
FB 2-pole	19.9	4.9
TEY 1-pole	19.3	4.3
TEY 2-pole	19.3	4.3
A2 2-pole	20.58	5.58

Power panelboards

ReliaGear® neXT XT1-XT2 circuit breakers



Frame	Int. rating at 480 V AC	Trip unit	Poles	Amps	Load side lugs (AWG or kcmil)	Ordering code
XT1 ³	N (25 kA)	TMF	3	15	1x #10-2/0	XT1NU3015AYD000XXX
XT1 ³	N (25 kA)	TMF	3	20	1x #10-2/0	XT1NU3020AYD000XXX
XT1 ³	N (25 kA)	TMF	3	30	1x #10-2/0	XT1NU3030AYD000XXX
XT1 ³	N (25 kA)	TMF	3	40	1x #10-2/0	XT1NU3040AYD000XXX
XT1 ³	N (25 kA)	TMF	3	50	1x #10-2/0	XT1NU3050AYD000XXX
XT1 ³	N (25 kA)	TMF	3	60	1x #10-2/0	XT1NU3060AYD000XXX
XT1 ³	N (25 kA)	TMF	3	70	1x #10-2/0	XT1NU3070AYD000XXX
XT1 ³	N (25 kA)	TMF	3	100	1x #10-2/0	XT1NU3100AYD000XXX
XT1 ³	N (25 kA)	TMF	3	125	1x #10-2/0	XT1NU3125AYD000XXX
XT1 ³	S (35 kA)	TMF	3	15	1x #10-2/0	XT1SU3015AYD000XXX
XT1 ³	S (35 kA)	TMF	3	20	1x #10-2/0	XT1SU3020AYD000XXX
XT1 ³	S (35 kA)	TMF	3	30	1x #10-2/0	XT1SU3030AYD000XXX
XT1 ³	S (35 kA)	TMF	3	40	1x #10-2/0	XT1SU3040AYD000XXX
XT1 ³	S (35 kA)	TMF	3	50	1x #10-2/0	XT1SU3050AYD000XXX
XT1 ³	S (35 kA)	TMF	3	60	1x #10-2/0	XT1SU3060AYD000XXX
XT1 ³	S (35 kA)	TMF	3	70	1x #10-2/0	XT1SU3070AYD000XXX
XT1 ³	S (35 kA)	TMF	3	100	1x #10-2/0	XT1SU3100AYD000XXX
XT1 ³	S (35 kA)	TMF	3	125	1x #10-2/0	XT1SU3125AYD000XXX
XT1 ³	H (65 kA)	TMF	3	15	1x #10-2/0	XT1HU3015AYD000XXX
XT1 ³	H (65 kA)	TMF	3	20	1x #10-2/0	XT1HU3020AYD000XXX
XT1 ³	H (65 kA)	TMF	3	30	1x #10-2/0	XT1HU3030AYD000XXX
XT1 ³	H (65 kA)	TMF	3	35	1x #10-2/0	XT1HU3035AYD000XXX
XT1 ³	H (65 kA)	TMF	3	40	1x #10-2/0	XT1HU3040AYD000XXX
XT1 ³	H (65 kA)	TMF	3	50	1x #10-2/0	XT1HU3050AYD000XXX
XT1 ³	H (65 kA)	TMF	3	60	1x #10-2/0	XT1HU3060AYD000XXX
XT1 ³	H (65 kA)	TMF	3	70	1x #10-2/0	XT1HU3070AYD000XXX
XT1 ³	H (65 kA)	TMF	3	80	1x #10-2/0	XT1HU3080AYD000XXX
XT1 ³	H (65 kA)	TMF	3	90	1x #10-2/0	XT1HU3090AYD000XXX
XT1 ³	H (65 kA)	TMF	3	100	1x #10-2/0	XT1HU3100AYD000XXX
XT1 ³	H (65 kA)	TMF	3	110	1x #10-2/0	XT1HU3110AYD000XXX
XT1 ³	H (65 kA)	TMF	3	125	1x #10-2/0	XT1HU3125AYD000XXX
XT2	H (65 kA)	TMA	3	80	1x #10-2/0	XT2HU3080BYD000XXX
XT2	H (65 kA)	TMA	3	100	1x #10-2/0	XT2HU3100BYD000XXX
XT2	H (65 kA)	TMA	3	125	1x #10-2/0	XT2HU3125BYD000XXX
XT2	L (100 kA)	TMA	3	100	1x #10-2/0	XT2LU3100BYD000XXX
XT2	N (25 kA)	Ekip DIP LSI	3	125	1x #10-2/0	XT2NU3125FYD000XXX
XT2	H (65 kA)	Ekip DIP LSI	3	60	1x #10-2/0	XT2HU3060FYD000XXX
XT2	H (65 kA)	Ekip DIP LSI	3	100	1x #10-2/0	XT2HU3100FYD000XXX
XT2	H (65 kA)	Ekip DIP LSI	3	125	1x #10-2/0	XT2HU3125FYD000XXX
XT2	L (100 kA)	Ekip DIP LSI	3	60	1x #10-2/0	XT2LU3060FYD000XXX
XT2	L (100 kA)	Ekip DIP LSI	3	100	1x #10-2/0	XT2LU3100FYD000XXX
XT2	L (100 kA)	Ekip DIP LSI	3	125	1x #10-2/0	XT2LU3125FYD000XXX

¹Additional Tmax® XT plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.

²All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.

³Separate mounting rail required. See details in accessories table.

Power panelboards

ReliaGear® neXT XT4 circuit breakers



Frame	Int. rating at 480 V	Trip unit	Poles	Amps	Load side lugs (AWG or kcmil)	Ordering code
XT4	N (25 kA)	TMF	3	150	1x 3/0-350	XT4NU3150AY8000XXX
XT4	N (25 kA)	TMF	3	175	1x 3/0-350	XT4NU3175AY8000XXX
XT4	N (25 kA)	TMF	3	200	1x 3/0-350	XT4NU3200AY8000XXX
XT4	N (25 kA)	TMF	3	225	1x 3/0-350	XT4NU3225AY8000XXX
XT4	N (25 kA)	TMF	3	250	1x 3/0-350	XT4NU3250AY8000XXX
XT4	S (35 kA)	TMF	3	150	1x 3/0-350	XT4SU3150AY8000XXX
XT4	S (35 kA)	TMF	3	175	1x 3/0-350	XT4SU3175AY8000XXX
XT4	S (35 kA)	TMF	3	200	1x 3/0-350	XT4SU3200AY8000XXX
XT4	S (35 kA)	TMF	3	225	1x 3/0-350	XT4SU3225AY8000XXX
XT4	S (35 kA)	TMF	3	250	1x 3/0-350	XT4SU3250AY8000XXX
XT4	H (65 kA)	TMF	3	150	1x 3/0-350	XT4HU3150AY8000XXX
XT4	H (65 kA)	TMF	3	150	1x 4-300	XT4HU3150AYJ000XXX
XT4	H (65 kA)	TMF	3	175	1x 3/0-350	XT4HU3175AY8000XXX
XT4	H (65 kA)	TMF	3	200	1x 3/0-350	XT4HU3200AY8000XXX
XT4	H (65 kA)	TMF	3	225	1x 3/0-350	XT4HU3225AY8000XXX
XT4	H (65 kA)	TMF	3	250	1x 3/0-350	XT4HU3250AY8000XXX
XT4	N (25 kA)	TMA	3	150	1x 4-300	XT4NU3150BYJ000XXX
XT4	N (25 kA)	TMA	3	175	1x 4-300	XT4NU3175BYJ000XXX
XT4	N (25 kA)	TMA	3	200	1x 4-300	XT4NU3200BYJ000XXX
XT4	N (25 kA)	TMA	3	225	1x 4-300	XT4NU3225BYJ000XXX
XT4	N (25 kA)	TMA	3	250	1x 3/0-350	XT4NU3250BY8000XXX
XT4	H (65 kA)	TMA	3	125	1x 4-300	XT4HU3125BYJ000XXX
XT4	H (65 kA)	TMA	3	150	1x 4-300	XT4HU3150BYJ000XXX
XT4	H (65 kA)	TMA	3	175	1x 4-300	XT4HU3175BYJ000XXX
XT4	H (65 kA)	TMA	3	200	1x 4-300	XT4HU3200BYJ000XXX
XT4	H (65 kA)	TMA	3	225	1x 4-300	XT4HU3225BYJ000XXX
XT4	H (65 kA)	TMA	3	250	1x 3/0-350	XT4HU3250BY8000XXX
XT4	L (100 kA)	TMA	3	100	1x 4-300	XT4LU3100BYJ000XXX
XT4	L (100 kA)	TMA	3	150	1x 4-300	XT4LU3150BYJ000XXX
XT4	L (100 kA)	TMA	3	175	1x 4-300	XT4LU3175BYJ000XXX
XT4	L (100 kA)	TMA	3	200	1x 4-300	XT4LU3200BYJ000XXX
XT4	L (100 kA)	TMA	3	225	1x 4-300	XT4LU3225BYJ000XXX
XT4	L (100 kA)	TMA	3	250	1x 3/0-350	XT4LU3250BY8000XXX
XT4	H (65 kA)	Ekip DIP LS/I	3	150	1x 4-300	XT4HU3150EYJ000XXX
XT4	H (65 kA)	Ekip DIP LS/I	3	225	1x 4-300	XT4HU3225EYJ000XXX
XT4	N (25 kA)	Ekip DIP LSI	3	100	1x 4-300	XT4NU3100FYJ000XXX
XT4	N (25 kA)	Ekip DIP LSI	3	225	1x 4-300	XT4NU3225FYJ000XXX
XT4	N (25 kA)	Ekip DIP LSI	3	250	1x 3/0-350	XT4NU3250FY8000XXX
XT4	S (35 kA)	Ekip DIP LSI	3	100	1x 4-300	XT4SU3100FYJ000XXX
XT4	S (35 kA)	Ekip DIP LSI	3	250	1x 3/0-350	XT4SU3250FY8000XXX
XT4	H (65 kA)	Ekip DIP LSI	3	100	1x 4-300	XT4HU3100FYJ000XXX
XT4	H (65 kA)	Ekip DIP LSI	3	150	1x 4-300	XT4HU3150FYJ000XXX
XT4	H (65 kA)	Ekip DIP LSI	3	225	1x 4-300	XT4HU3225FYJ000XXX
XT4	H (65 kA)	Ekip DIP LSI	3	250	1x 3/0-350	XT4HU3250FY8000XXX
XT4	L (100 kA)	Ekip DIP LSI	3	40	1x 14-1/0	XT4LU3040FYG000XXX
XT4	L (100 kA)	Ekip DIP LSI	3	60	1x 14-1/0	XT4LU3060FYG000XXX
XT4	L (100 kA)	Ekip DIP LSI	3	100	1x 4-300	XT4LU3100FYJ000XXX
XT4	L (100 kA)	Ekip DIP LSI	3	150	1x 4-300	XT4LU3150FYJ000XXX
XT4	L (100 kA)	Ekip DIP LSI	3	250	1x 3/0-350	XT4LU3250FY8000XXX

¹Additional Tmax® XT plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.

²All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.

Power panelboards

ReliaGear® neXT XT5-XT7 circuit breakers



Frame	Int. rating at 480 V	Trip unit	Poles	Amps	Load side lugs (AWG or kcmil)	Ordering code
XT5	N (25 kA)	TMA	3	300	2x 2/0-500	XT5NU330ABYN000XXX
XT5	N (25 kA)	TMA	3	400	2x 2/0-500	XT5NU340ABYN000XXX
XT5	N (25 kA)	TMA	3	500	2x 2/0-500	XT5NU350BBYN000XXX
XT5	N (25 kA)	TMA	3	600	2x 2/0-500	XT5NU360BBYN000XXX
XT5	S (35 kA)	TMA	3	300	2x 2/0-500	XT5SU330ABYN000XXX
XT5	S (35 kA)	TMA	3	400	2x 2/0-500	XT5SU340ABYN000XXX
XT5	S (35 kA)	TMA	3	600	2x 2/0-500	XT5SU360BBYN000XXX
XT5	H (65 kA)	TMA	3	300	2x 2/0-500	XT5HU330ABYN000XXX
XT5	H (65 kA)	TMA	3	400	2x 2/0-500	XT5HU340ABYN000XXX
XT5	H (65 kA)	TMA	3	500	2x 2/0-500	XT5HU350BBYN000XXX
XT5	H (65 kA)	TMA	3	600	2x 2/0-500	XT5HU360BBYN000XXX
XT5	L (100 kA)	TMA	3	300	2x 2/0-500	XT5LU330ABYN000XXX
XT5	L (100 kA)	TMA	3	400	2x 2/0-500	XT5LU340ABYN000XXX
XT5	L (100 kA)	TMA	3	600	2x 2/0-500	XT5LU360BBYN000XXX
XT5	N (25 kA)	Ekip DIP LSI	3	400	2x 2/0-500	XT5NU340AFYN000XXX
XT5	N (25 kA)	Ekip DIP LSI	3	600	2x 2/0-500	XT5NU360BFYN000XXX
XT5	S (35 kA)	Ekip DIP LSI	3	400	2x 2/0-500	XT5SU340AFYN000XXX
XT5	S (35 kA)	Ekip DIP LSI	3	600	2x 2/0-500	XT5SU360BFYN000XXX
XT5	H (65 kA)	Ekip DIP LSI	3	400	2x 2/0-500	XT5HU340AFYN000XXX
XT5	H (65 kA)	Ekip DIP LSI	3	600	2x 2/0-500	XT5HU360BFYN000XXX
XT5	L (100 kA)	Ekip DIP LSI	3	400	2x 2/0-500	XT5LU340AFYN000XXX
XT5	L (100 kA)	Ekip DIP LSI	3	600	2x 2/0-500	XT5LU360BFYN000XXX
XT6	N (25 kA)	TMA	3	800	3x 2/0-400	XT6NU3800BYU000XXX
XT6	S (35 kA)	TMA	3	800	3x 2/0-400	XT6SU3800BYU000XXX
XT6	H (65 kA)	TMA	3	800	3x 2/0-400	XT6HU3800BYU000XXX
XT6	N (25 kA)	Ekip DIP LSI	3	800	3x 2/0-400	XT6NU3800FYU000XXX
XT6	H (65 kA)	Ekip DIP LSI	3	800	3x 2/0-400	XT6HU3800FYU000XXX
XT7	S (35 kA)	Ekip DIP LSI	3	1000	4x 4/0-500	XT7SU310DFYW000XXX
XT7	S (35 kA)	Ekip DIP LSI	3	1200	4x 4/0-500	XT7SU312EFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	800	4x 4/0-500	XT7HU380CFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	1000	4x 4/0-500	XT7HU310DFYW000XXX
XT7	H (65 kA)	Ekip DIP LSI	3	1200	4x 4/0-500	XT7HU312EFYW000XXX
XT7	S (35 kA)	Ekip Touch LSI	3	1000	4x 4/0-500	XT7SU310DPYW000XXR
XT7	S (35 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	XT7SU312EPYW000XXR
XT7	H (65 kA)	Ekip Touch LSI	3	1000	4x 4/0-500	XT7HU310DPYW000XXR
XT7	H (65 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	XT7HU312EPYW000XXR
XT7	L (100 kA)	Ekip Touch LSI	3	1200	4x 4/0-500	XT7LU312EPYW000XXR
XT7	S (35 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	XT7SU312EQYW000XXR
XT7	H (65 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	XT7HU312EQYW000XXR
XT7	L (100 kA)	Ekip Touch LSIG	3	1200	4x 4/0-500	XT7LU312EQYW000XXR

¹Additional Tmax® XT plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.

²All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.

³If 750 kcmil lugs are needed, a factory assembled ReliaGear neXT configuration will be required.

Power panelboards

ReliaGear® neXT TEY and Record Plus FB circuit breakers



1-pole FB



2-pole FB



1-pole TEY



2-pole TEY

Frame	Int. rating at 480 V	Trip unit	Poles	Amps	Phase	Load side lugs (AWG or kcmil)	Ordering code
TEY	D (25 kA)	TMF	1	20	A	#14-#10 (Cu), #12-#10 (Al)	TEYADED0AAXXXXXX
TEY	D (25 kA)	TMF	1	20	B	#14-#10 (Cu), #12-#10 (Al)	TEYADED0BAXXXXXX
TEY	D (25 kA)	TMF	1	20	C	#14-#10 (Cu), #12-#10 (Al)	TEYADED0CAXXXXXX
TEY	H (35 kA)	TMF	1	20	A	#14-#10 (Cu), #12-#10 (Al)	TEYAHED0AAXXXXXX
TEY	H (35 kA)	TMF	1	20	B	#14-#10 (Cu), #12-#10 (Al)	TEYAHED0BAXXXXXX
TEY	H (35 kA)	TMF	1	20	C	#14-#10 (Cu), #12-#10 (Al)	TEYAHED0CAXXXXXX
TEY	L (65 kA)	TMF	1	20	A	#14-#10 (Cu), #12-#10 (Al)	TEYALEDOAAXXXXXX
TEY	L (65 kA)	TMF	1	20	B	#14-#10 (Cu), #12-#10 (Al)	TEYALEDOBAXXXXXX
TEY	L (65 kA)	TMF	1	20	C	#14-#10 (Cu), #12-#10 (Al)	TEYALEDOCAXXXXXX
TEY	D (25 kA)	TMF	2	40	AB	#10-#6 (Cu), #8-#4 (Al)	TEYADFHBABXXXXX
TEY	D (25 kA)	TMF	2	100	AB	#4-#1 (Cu), #2-1/0 (Al)	TEYADFQABDXXXXX
TEY	D (25 kA)	TMF	2	40	BC	#10-#6 (Cu), #8-#4 (Al)	TEYADFHBBCXXXXX
TEY	D (25 kA)	TMF	2	100	BC	#4-#1 (Cu), #2-1/0 (Al)	TEYADFQBCDXXXXX
TEY	D (25 kA)	TMF	2	40	AC	#10-#6 (Cu), #8-#4 (Al)	TEYADFHBACXXXXX
TEY	D (25 kA)	TMF	2	100	AC	#4-#1 (Cu), #2-1/0 (Al)	TEYADFQACDXXXXX
FB	V (35 kA) ³	TMF	1	20	A	#14-#10	NEFBV16TE020R2A
FB	V (35 kA) ³	TMF	1	20	B	#14-#10	NEFBV16TE020R2B
FB	V (35 kA) ³	TMF	1	20	C	#14-#10	NEFBV16TE020R2C
FB	N (65 kA) ³	TMF	1	20	A	#14-#10	NEFBN16TE020R2A
FB	N (65 kA) ³	TMF	1	30	A	#10-4	NEFBN16TE030R2A
FB	N (65 kA) ³	TMF	1	20	B	#14-#10	NEFBN16TE020R2B
FB	N (65 kA) ³	TMF	1	30	B	#10-4	NEFBN16TE030R2B
FB	N (65 kA) ³	TMF	1	20	C	#14-#10	NEFBN16TE020R2C
FB	N (65 kA) ³	TMF	1	30	C	#10-4	NEFBN16TE030R2C
FB	V (35 kA)	TMF	2	100	AB	#4-1/0	NEFBV26TE100R2AB
FB	V (35 kA)	TMF	2	100	BC	#4-1/0	NEFBV26TE100R2BC
FB	V (35 kA)	TMF	2	100	AC	#4-1/0	NEFBV26TE100R2AC
FB	N (65 kA)	TMF	2	20	AB	#14-#10	NEFBN26TE020R2AB
FB	N (65 kA)	TMF	2	30	AB	#10-4	NEFBN26TE030R2AB
FB	N (65 kA)	TMF	2	40	AB	#10-4	NEFBN26TE040R2AB
FB	N (65 kA)	TMF	2	50	AB	#10-4	NEFBN26TE050R2AB
FB	N (65 kA)	TMF	2	60	AB	#10-4	NEFBN26TE060R2AB
FB	N (65 kA)	TMF	2	100	AB	#4-1/0	NEFBN26TE100R2AB
FB	N (65 kA)	TMF	2	20	BC	#14-#10	NEFBN26TE020R2BC
FB	N (65 kA)	TMF	2	30	BC	#10-4	NEFBN26TE030R2BC
FB	N (65 kA)	TMF	2	40	BC	#10-4	NEFBN26TE040R2BC
FB	N (65 kA)	TMF	2	50	BC	#10-4	NEFBN26TE050R2BC
FB	N (65 kA)	TMF	2	60	BC	#10-4	NEFBN26TE060R2BC
FB	N (65 kA)	TMF	2	100	BC	#4-1/0	NEFBN26TE100R2BC
FB	N (65 kA)	TMF	2	20	AC	#14-#10	NEFBN26TE020R2AC
FB	N (65 kA)	TMF	2	30	AC	#10-4	NEFBN26TE030R2AC
FB	N (65 kA)	TMF	2	40	AC	#10-4	NEFBN26TE040R2AC
FB	N (65 kA)	TMF	2	50	AC	#10-4	NEFBN26TE050R2AC
FB	N (65 kA)	TMF	2	60	AC	#10-4	NEFBN26TE060R2AC
FB	N (65 kA)	TMF	2	100	AC	#4-1/0	NEFBN26TE100R2AC

¹Additional TEY and FB plug-in circuit breakers and accessories are available. Contact your local ABB sales team for more information.

²All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory assembled ReliaGear neXT configuration will be required.

³Interrupt rating at 240 V AC.

Power panelboards

ReliaGear® neXT Formula A2 circuit breakers



2-pole Formula A2

ReliaGear® neXT Formula A2 circuit breakers for branch feeder circuits^{1,2,3}

Ordering code	Frame	Int. rating at 240 V	Trip unit	Poles	Amps	Phase	Cu load side lugs (AWG or kcmil)	Al load side lugs (AWG or kcmil)
A2A2125ABDXXXX	A2	A (10 kA)	TMF	2	125	AB	1x 1-250	1x 2/0-300
A2A2125ACDXXXX	A2	A (10 kA)	TMF	2	125	AC	1x 1-250	1x 2/0-300
A2A2150ABDXXXX	A2	A (10 kA)	TMF	2	150	AB	1x 1-250	1x 2/0-300
A2A2150ACDXXXX	A2	A (10 kA)	TMF	2	150	AC	1x 1-250	1x 2/0-300
A2A2200ABDXXXX	A2	A (10 kA)	TMF	2	200	AB	1x 1-250	1x 2/0-300
A2A2200ACDXXXX	A2	A (10 kA)	TMF	2	200	AC	1x 1-250	1x 2/0-300
A2N2125ABDXXXX	A2	A (10 kA)	TMF	2	125	AB	1x 1-250	1x 2/0-300
A2N2125ACDXXXX	A2	N (25 kA)	TMF	2	125	AC	1x 1-250	1x 2/0-300
A2N2150ABDXXXX	A2	N (25 kA)	TMF	2	150	AB	1x 1-250	1x 2/0-300
A2N2150ACDXXXX	A2	N (25 kA)	TMF	2	150	AC	1x 1-250	1x 2/0-300
A2N2200ABDXXXX	A2	N (25 kA)	TMF	2	200	AB	1x 1-250	1x 2/0-300
A2N2200ACDXXXX	A2	N (25 kA)	TMF	2	200	AC	1x 1-250	1x 2/0-300
A2N2250ABDXXXX	A2	N (25 kA)	TMF	2	250	AB	1x 1-250	—

¹ Additional Formula A2 plug-on circuit breakers are available. Contact your local ABB sales team for more information.

² All breakers are standard rated (standard circuit breakers design considers 80% of the rated load). In case a 100% rated breaker is needed, a factory-assembled ReliaGear neXT configuration will be required.

³ 250 A Formula A2 plug-in breakers with 350 kcmil Al load side lugs available. Contact your local ABB sales team for more information.

Power panelboards

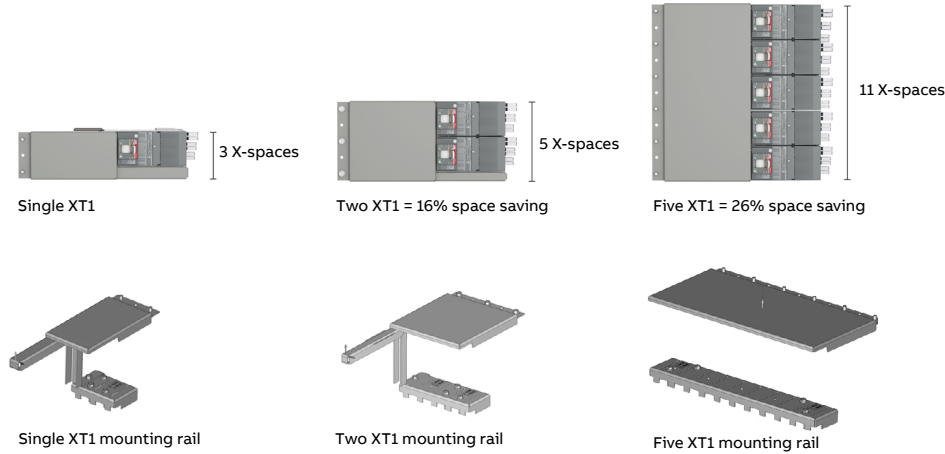
ReliaGear® neXT circuit breaker X-spacing

Each circuit breaker frame has specific requirements for the number of mounting positions (**X-spaces**). Thanks to the optimized dimensions of the XT1, the mounting positions required are lower when two or five breakers are mounted

close to one another. RELTs also require **X-space**, since they are plug-in modules. Refer to the table below and add up the number of **X-spaces** required for each breaker frame.

Frame	Max. ampacity (A)	Poles	X-spaces
Single XT1	125	3	3
Two XT1	125	3	5
Five XT1	125	3	11
XT4	250	3	3
XT5 ¹	600	3	4
XT6	800	3	6
XT7	1200	3	6
FB	100	1	1
FB	100	2	2
TEY	70	1	1
TEY	125	2	2
A2	250	2	2
RELT	—	—	3

¹Tmax® XT5 with electrical accessories requires 1 (one) additional X-space.



The small footprint of the XT1 allows this panel to offer multiple options to improve circuit breaker density. As you configure and order ReliaGear® neXT panelboards, you'll notice that XT1 are grouped in quantities of one, two or five. As part of this feature, unique mounting brackets are required when adding XT1 breaker assemblies. See above for X-space and mounting brackets required. These additional rails are not included with SuperBox configurations and must be ordered as accessories.

- Order codes for XT1 mounting rails**
- SR1XBF for 1 single XT1 breaker
 - SR2XBF for 2 adjacent XT1 breakers
 - SR5XBF for 5 adjacent XT1 breakers

Power panelboards

ReliaGear® neXT breaker accessories



Auxiliary contacts



Shunt trip



Fixed padlock



RELT



Mounting rail

Group	Type	Volts AC	XT1	XT2	XT4	XT5 ²	XT6	XT7	TEY	FB	A2
Auxiliary contacts Q = Indication of the status of the circuit breaker SY = Bell alarm	AUX-C 1 Q + 1 SY	250					KXTAAXCQSYFP				
	AUX-C 2 Q + 1 SY	250					KXTAAXC2QSYFP				
	AUX-C 1 Q + 1 SY	24					KXTAAXCDQSYFP				
	AUX-C 3 Q + 1 SY	24					KXTDAXCD3QSYFP				
	AUX 4Q	24						ZE1AUX4D			
	AUX 4Q	400						ZE1AUX4			
	AUX 1 SY	24						ZE1BAD			
Shunt trip	AUX 1 SY	250						ZE1BA			
	Pre-cabled (except for XT7)	24		KXTASORCFPB			KXTFYOCFPD	ZEZSZ			
	Pre-cabled (except for XT7)	110		KXTASORCFPD			KXTFYOCFPD	ZEASE			
	Pre-cabled (except for XT7)	220		KXTASORCFPE				ZEASG			
Undervoltage release	Pre-cabled (except for XT7)	24		KXTAUVRCFP1			KXTFYUC1	ZEUAU			
	Pre-cabled (except for XT7)	110		KXTAUVRCFP4			KXTFYUC4	ZEUAU			
	Pre-cabled (except for XT7)	220		KXTAUVRCFP5			KXTFYUC5	ZEUAU			
	Pre-cabled (except for XT7)	220		KXTAUVRCFP5			KXTFYUC5	ZEUAU			
Fixed padlock ¹	Open position	–	KXTBPLLOP	KXTCPLLOP	KXT5PLLOP	KXT6PLLOP	KXT7PLLOP				
	Open/closed position	–	KXTBLLOPL	KXTCPLLOPL	KXT5PLLOPLC	KXT6PLLOPLC		TEYXPLD1	FB1PF		
Removable padlock	Open position: KA2LD	–									KA2LDOR
RELT	RELT kit ⁴	120/240						RT04A			
	RELT kit ⁴	480						RT04B			
	RELT kit ⁴	600						RT04C			
	RELT wire connector	–						CN003			
Mounting rail	1 single Tmax® XT1	–	SR1XBF								
	2 adjacent Tmax® XT1	–	SR2XBF								
	5 adjacent Tmax® XT1	–	SR5XBF								
Blank and fillers	1X blank + filler	–									SR01BF
	1X blank only	–									SR01BB
	2X blank + filler	–									SR02BF
	2X blank only	–									SR02BB
	3X blank + filler	–									SR03BF
	3X blank only	–									SR03BB
	XT1 blank only	–	SRT1BB								

¹ Padlocks are not included in the kit.

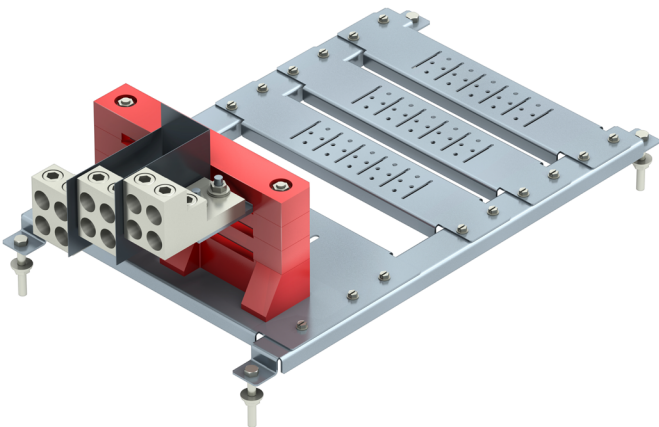
² Tmax® XT5 electrical accessories require 1 (one) extra X-space for installation.

³ Additional Tmax XT accessories are available. Contact your local ABB sales team for more information.

⁴ Requires XT7 equipped with Ekip Touch or above trip unit, 3 X-space factor required.

Power panelboards

ReliaGear® neXT circuit breaker test fixture



The ReliaGear® neXT circuit breaker test fixture simplifies ReliaGear neXT plug-in circuit breaker testing. With a specifically designed bus stack, quickly install and easily test ReliaGear neXT circuit breakers to confirm they are operational and within applicable standards and tolerances.

A single test fixture covers the complete ReliaGear neXT circuit breakers offering from XT1 to XT7.

Circuit Breaker Frame	Rating (A)	Ordering Code
XT1	125	RGXTBTF
XT2	125	
XT4	250	
XT5	600	
XT6	800	
XT7	1200	

—

8

Surge protective devices

Section 8

Surge protective devices

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Surge protective devices

Power - DIN rail series



UL 1449 5th edition

Poles	Voltage	Description	Ordering Code	Alt. ordering code
1	120	1-Phase, 2 wire	2CTB802341R0000	OVR T2 15-150 P U
3	277	3-Phase Delta, 4 wire	2CTB802345R2400	OVR T2 3L 40-320PU
3	480	3-Phase Delta, 4 wire	2CTB802345R3400	OVR T2 3L 40-550PU
3	480/277	3-Phase Wye, 5 wire	2CTB802346R2400	OVR T2 3N 40-320PU
3	480/277	3-Phase Wye, 5 wire	2CTB802346R3400	OVR T2 3N 40-550PU



UL 1449 5th edition

Poles	Voltage	Description	Ordering Code	Alt. ordering code
1	120	1-Phase, 2 wire	2CTB802341R2100	OVR T2 40-150 P TS U
1	120	1-Phase, 2 wire	2CTB802341R2000	OVR T2 40-150 P U
1	277	1-Phase, 2 wire	2CTB802341R2500	OVR T2 40-320 P TS U
1	347	1-Phase, 2 wire	2CTB802341R2900	OVR T2 40-440 P TS U
1	480	1-Phase, 2 wire	2CTB802341R3300	OVR T2 40-550 P TS U
1	600	1-Phase, 2 wire	2CTB802341R3700	OVR T2 40-660 P TS U
1	400/690	1-Phase	2CTB815101R9300	OVR T1 25 440-50
1	277	1-Phase, 2 wire	2CTB802341R0400	OVR T2 15-320 P U
1	120	1-Phase, 3 wire	2CTB802342R0000	OVR T2 1N 15-150 P U
1	277	1-Phase, 3 wire	2CTB802342R0400	OVR T2 1N 15-320 P U
1	120	1-Phase, 3 wire	2CTB802342R2100	OVR T2 1N 40-150 P TS U
1	277	1-Phase, 3 wire	2CTB802342R2500	OVR T2 1N 40-320 P TS U
1	347	1-Phase, 3 wire	2CTB802342R2900	OVR T2 1N 40-440 P TS U
1	480	1-Phase, 3 wire	2CTB802342R3300	OVR T2 1N4 0-550 P TS U
1	600	1-Phase, 3 wire	2CTB802342R3700	OVR T2 1N 40-660 P TS U
2	240/120	2-Phase, 3 wire	2CTB802343R0000	OVR T2 2L 15-150 P U
2	480/277	2-Phase, 3 wire	2CTB802343R0400	OVR T2 2L 15-320 P U
2	240/120	2-Phase, 3 wire	2CTB802343R2100	OVR T2 2L 40-150 P TS U
2	480/277	2-Phase, 3 wire	2CTB802343R2500	OVR T2 2L 40-320 P TS U
2	480/277	2-Phase, 3 wire	2CTB802343R2400	OVR T2 2L 40-320 P U
2	240/120	2-Phase, 4 wire	2CTB802344R0000	OVR T2 2N 15-150 P U
2	480/277	2-Phase, 4 wire	2CTB802344R0400	OVR T2 2N 15-320 P U
2	240/120	2-Phase, 4 wire	2CTB802344R2100	OVR T2 2N 40-150 P TS U
2	480/277	2-Phase, 4 wire	2CTB802344R2500	OVR T2 2N 40-320 P TS U
2	600/347	2-Phase, 4 wire	2CTB802344R2900	OVR T2 2N 40-440 P TS U
2	480/277	2-Phase, 4 wire	2CTB802344R3300	OVR T2 2N 40-550 P TS U
2	600/347	2-Phase, 4 wire	2CTB802344R3700	OVR T2 2N 40-660 P TS U

Table continues on next page.

Surge protective devices

Power - DIN rail series

UL 1449 5th edition

Poles	Voltage	Description	Ordering Code	Alt. ordering code
3	120	3-Phase Delta, 4 wire	2CTB802345R0000	OVR T2 3L 15150 P U
3	120	3-Phase Delta, 4 wire	2CTB802345R2100	OVR T2 3L 40-150 P TS U
3	277	3-Phase Delta, 4 wire	2CTB802345R2500	OVR T2 3L 40-320 P TS U
3	347	3-Phase Delta, 4 wire	2CTB802345R2900	OVR T2 3L 40-440 P TS U
3	480	3-Phase Delta, 4 wire	2CTB802345R3300	OVR T2 3L 40-550 P TS U
3	208/120	3-Phase Wye, 5 wire	2CTB802346R0000	OVR T2 3N 15-150 P U
3	480/277	3-Phase Wye, 5 wire	2CTB802346R0400	OVR T2 3N 15-320 P U
3	208/120	3-Phase Wye, 5 wire	2CTB802346R2100	OVR T2 3N 40-150 P TS U
3	480/277	3-Phase Wye, 5 wire	2CTB802346R2500	OVR T2 3N 40-320 P TS U
3	600/347	3-Phase Wye, 5 wire	2CTB802346R2900	OVR T2 3N 40-440 P TS U
3	480/277	3-Phase Wye, 5 wire	2CTB802346R3300	OVR T2 3N 40-550 P TS U
3	600/347	3-Phase Wye, 5 wire	2CTB802346R3700	OVR T2 3N 40-660 P TS U

Surge protective devices

Photovoltaic (PV) - DIN rail series

UL 1449 5th Edition



Poles	Voltage	Description	Ordering Code	Alt. ordering code
3	1500	1500V Photovoltaic SPD	2CTB802400R1500	OVR PV T2 40-1500 P
3	1500	1500V Photovoltaic SPD with Dry contacts	2CTB802401R1500	OVR PV T2 40-1500 P TS
3	1000	1000V Photovoltaic SPD	2CTB802400R1000	OVR PV T2 40-1000 P
3	1000	1000V Photovoltaic SPD with Dry contacts	2CTB802401R1000	OVR PV T2 40-1000 P TS
3	1000	1000V Photovoltaic Cartridge	2CTB802402R1000	OVR PV T2 40-1000 C
3	1500	1500V Photovoltaic Cartridge	2CTB802402R1500	OVR PV T2 40-1500 C

Surge protective devices

Data and signal protection - DIN rail series

UL 497B 4th Edition

Poles	Max. Voltage	Description	Ordering Code	Alt. ordering code
3	15 V	DATA SPD FOR RS485 SLIM 7mm WIDE	7TCA085400R0551	OVRSLRS485UL
3	15 V	DATA SPD FOR RS485 SLIM 7mm WIDE w/ LED	7TCA085400R0552	OVRSLRS485LUL
12	15 V	DATA SPD, 4-RS485 w/ SHIELDS SCREW TERM	7TCA085400R0572	OVRRS485QUL
12	15 V	DATA SPD, 4-RS485 w/ SHIELDS PUSH TERMS	7TCA085400R0579	OVRRS485QPTUL
12	30 V	DATA SPD FOR 4 PAIR SIGNAL 30V	7TCA085400R0568	OVR30QUL
12	30 V	DATA SPD FOR 4pr SIGNAL PUSH TERM 30V	7TCA085400R0575	OVR30QPTUL
3	6 V	DATA SPD FOR 2-WIRE SIGNAL 7mm SLIM 6V	7TCA085400R0527	OVRSL06UL
4	6 V	DATA SPD, 2-WIRE ISOSHIELD 7mm SLIM 6V	7TCA085400R0528	OVRSL06IUL
3	30V	DATA SPD, 2-WIRE SIGNAL 7mm SLIM 30V	7TCA085400R0535	OVRSL30UL
4	30 V	DATA SPD, 2-WIRE ISOSHIELD 7mm SLIM 30V	7TCA085400R0536	OVRSL30IUL
3	180 V	DATA SPD, 2-WIRE SIGNAL 7mm SLIM 180V	7TCA085400R0547	OVRSL180UL

Surge protective devices series

OVRHR series

UL 1449 5th Edition

NEMA Type	Voltage	Max surge current rating	Description	Ordering Code	Alt. ordering code
UL 1449 Type 1	240/120 V	36 kA	2-phase, 3-wire + ground	2CJC903120S0004	OVRHR361202S

Surge protective devices series

OVRHT3D series

UL 1449 5th Edition

NEMA Type	Voltage	Max surge current rating	Description	Ordering Code	Alt. ordering code
UL 1449 Type 1	240V	50 kA	1-phase, 2-wire + ground	2CJC705240P0000	OVRHT3D502401P
UL 1449 Type 1	277V	50 kA	1-phase, 2-wire + ground	2CJC705277P0000	OVRHT3D502771P
UL 1449 Type 1	240/120V	50 kA	2-phase, 3-wire + ground	2CJC705120S0000	OVRHT3D501202S
UL 1449 Type 1	208/120V	50 kA	3-phase Wye, 4-wire + ground	2CJC705120Y0000	OVRHT3D501203Y
UL 1449 Type 1	380/220V	50 kA	3-phase Wye, 4-wire + ground	2CJC705220Y0000	OVRHT3D502203Y
UL 1449 Type 1	480/277V	50 kA	3-phase Wye, 4-wire + ground	2CJC705277Y0000	OVRHT3D502773Y
UL 1449 Type 1	240V	50 kA	3-phase Delta, 3-wire + ground	2CJC705240D0000	OVRHT3D502403D
UL 1449 Type 1	380V	50 kA	3-phase Delta, 3-wire + ground	2CJC705380D0000	OVRHT3D503803D
UL 1449 Type 1	480V	50 kA	3-phase Delta, 3-wire + ground	2CJC705480D0000	OVRHT3D504803D

Automatic transfer switches



Section 9
Automatic transfer switches

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Ordering code construction

OX	A	1000	U	3	S	4	Q		B
ABB Brand OX = ABB TruONE ATS									
ATS type A = Open transition I - II (without stable OFF position for load disconnection) B = Delayed transition I - O - II (with stable OFF position for load disconnection)									Cabling direction Open style, no enclosure B = Bottom entry (sources on bottom, load on top) T = Top entry (sources on the top, load on the bottom)
ATS size UL = 30, 60, 100, 125, 160, 200, 260, 400, 600, 800, 1000, 1200 IEC = 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600									Enclosure rating Blank = _ (blank) Open style, no enclosure
Standard E = IEC U = UL									Voltage code Q = 200–480 VAC
Phase poles 1 = 1-pole 2 = 2-pole 3 = 3-pole									Controller 2 = Level 2 controls (DIP) 3 = Level 3 controls (LCD) 4 = Level 4 controls (Touch)
									Neutral S = Switched Neutral O = Overlapping Neutral X = None

Controller	Mode of control	Features
Level 2	DIP switch	Standard control with limited options
Level 3	LCD screen	Advanced control with optional module for communication and programmable I/O module
Level 4	Touch screen	Superior control with level 3 features and power measurement & predictive maintenance

TruONE™ automatic transfer switch

Switches and accessories

TruONE switches

AMP	Poles	Controller	Voltage code	Transition Type	Cabling direction	Ordering Code
60	3	Level 2 controls (DIP)	200-480 VAC	Delayed	Top	OXB60U3X2QT
100	3	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA100U3X3QB
100	3	Level 3 controls (LCD)	200-480 VAC	Open	Top	OXA100U3X3QT
200	3	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA200U3X3QB
200	4	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA200U3S3QB
200	4	Level 3 controls (LCD)	200-480 VAC	Open	Top	OXA200U3S3QT
200	3	Level 3 controls (LCD)	200-480 VAC	Delayed	Bottom	OXB200U3X3QB
400	4	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA400U3S3QB
400	3	Level 4 controls (Touch)	200-480 VAC	Open	Bottom	OXA400U3X4QB
400	3	Level 3 controls (LCD)	200-480 VAC	Delayed	Bottom	OXB400U3X3QB
600	3	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA600U3X3QB
600	3	Level 3 controls (LCD)	200-480 VAC	Open	Top	OXA600U3X3QT
600	4	Level 4 controls (Touch)	200-480 VAC	Delayed	Bottom	OXB600U3S4QB
800	3	Level 4 controls (Touch)	200-480 VAC	Open	Bottom	OXA800U3X4QB
800	4	Level 4 controls (Touch)	200-480 VAC	Delayed	Top	OXB800U3S4QT
800	3	Level 4 controls (Touch)	200-480 VAC	Delayed	Top	OXB800U3X4QT
800	4	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA800U3S3QB
800	4	Level 4 controls (Touch)	200-480 VAC	Delayed	Bottom	OXB800U3S4QB
1000	3	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA1000U3X3QB
1200	3	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA1200U3X3QB
1200	4	Level 3 controls (LCD)	200-480 VAC	Open	Bottom	OXA1200U3S3QB
1200	4	Level 4 controls (Touch)	200-480 VAC	Delayed	Bottom	OXB1200U3S4QB
1200	3	Level 4 controls (Touch)	200-480 VAC	Delayed	Top	OXB1200U3X4QT

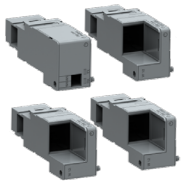


OXEA1

Accessories

Auxiliary power supply module

Suitable for switches	Aux Voltage	Ordering Code
OX30...1600	12-24 Vdc	OXEA1



EKIP COM

Communication modules

Suitable for switches	Protocol	Ordering Code
OX30...1600	EKIP COM MODBUS TCP	ZEAMODTCP
OX30...1600	EKIP COM MODBUS RS-485	ZEAMOD485



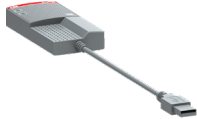
EKIP 2K SIGNALLING

Signalling Modules for Level 3 and Level 4 controllers

Suitable for switches	Type	Ordering Code
OX30....1200	TRUONE IO MOD 2I/2O MKG:11,12/11,12	2K-1-OX
OX30....1200	TRUONE IO MOD 2I/2O MKG:21,22/21,22	2K-2-OX

TruONE™ automatic transfer switch

Accessories



EKIP PROGRAMMING

Ekip Programming module

Suitable for switches	Type	Ordering Code
OX30...1600	EKIP Programming	ZEAEKPPGM



OXES_S

Terminal shrouds

Suitable for switches	Type	Ordering Code
OX30....1200	TERM SHROUD TRUONE UL30-200A L 3PC	OXES250G1L/3
OX30....1200	TERM SHROUD TRUONE UL30-200A L 4PC	OXES250G1L/4
OX30....1200	TERM SHROUD TRUONE UL30-200A S 3PC	OXES250G1S/3
OX30....1200	TERM SHROUD TRUONE UL30-200A S 4PC	OXES250G1S/4
OX30....1200	TERM SHROUD TRUONE UL260-600A L 3PC	OXES800G1L/3
OX30....1200	TERM SHROUD TRUONE UL260-600A L 4PC	OXES800G1L/4
OX30....1200	TERM SHROUD TRUONE UL260-600A S 3PC	OXES800G1S/3
OX30....1200	TERM SHROUD TRUONE UL260-600A S 4PC	OXES800G1S/4
OX30....1200	TERM SHROUD TRUONE UL800-1200 L 3PC	OXES1600G1L/3
OX30....1200	TERM SHROUD TRUONE UL800-1200 L 4PC	OXES1600G1L/4



OXES_L



OXEB_

Phase barriers

Suitable for switches	Type	Ordering Code
OX30...1600	30 -1200 Amps, 3 Pole	OXEB1600/4
	30 - 1200 Amps, 4 Pole	OXEB1600/6



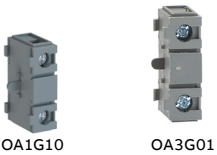
Oxec21

HMI Protective cover, IP54, NEMA 3R rated

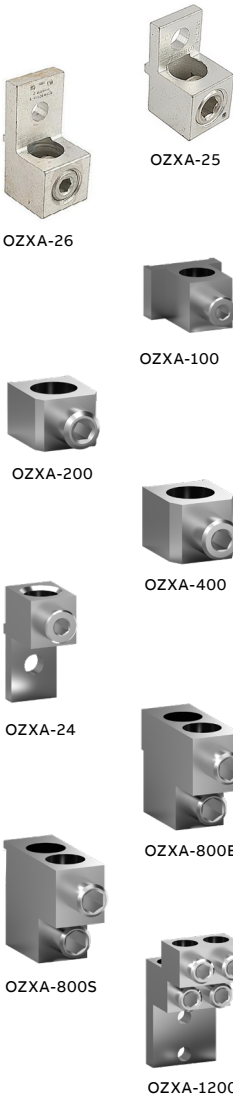
Suitable for switches	Type	Ordering Code
OX30...1600	TRUONE HMI PROTECT COVER UL30-1200	Oxec21

TruONE™ automatic transfer switch

Accessories



Auxiliary contacts		
Suitable for switches	Type	Ordering Code
OX30....1200	1-NO AUX SW OT/OS	OA1G10
OX30....1200	AUX SWITCH 1NC OS/OT	OA3G01



Terminal Lug kits						
Type	Wire Range	Wires per lug	2 lugs kit	3 lugs kit	4 lugs kit	6 lugs kit
OZXA-100	14-2/0 AWG	1			OZXA-100/4P	OZXA-100
OZXA-24	14-2/0 AWG	1	OZXA-24/2P	OZXA-24/3P	OZXA-24/4P	
OZXA-200	4 AWG - 300kcmil	1			OZXA-200/4	OZXA-200
OZXA-25	6 AWG - 300kcmil	1	OZXA-25/2P	OZXA-25/3P	OZXA-25/4P	
OZXA-400	2 AWG - 600kcmil	1			OZXA-400/4	OZXA-400
OZXA-26	2 AWG - 600kcmil	1	OZXA-26/2P	OZXA-26/3P	OZXA-26/4P	
OZXA-412	2 AWG - 600kcmil	1 or 2			OZXA-412/4P	OZXA-412
OZXA-412L	2 AWG - 600kcmil	1 or 2	OZXA-412L/2P	OZXA-412L/3P	OZXA-412L/4P	
OZXA-800E	2 AWG - 600kcmil	2			OZXA-800E/4P	OZXA-800E
OZXA-800S	2 AWG - 600kcmil	2			OZXA-800S/4P	OZXA-800S
OZXA-800LT	2 AWG - 600kcmil	2	OZXA-800LT/2	OZXA-800LT/3	OZXA-800LT/4	
OZXA-1200	2 AWG - 600kcmil	4			OZXA-1200/4	OZXA-1200

- (1) One complete kit contains enough pieces for both Source S2 and Load terminals.
- (2) Apply 2 pieces to Source S2 terminal of each pole.
- (3) One complete kit contains enough pieces for both Load and Source S1 terminals.

NEMA and definite purpose controls

Section 10

NEMA and definite purpose controls

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Lighting contactors

460 series contactors and accessories	10-13
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Definite purpose contactors

Contactors and accessories



		2 NO (2P)	3 NO (3P)
Coil Voltage	Frame Size	Ordering Code	Ordering Code
24V AC	30A	DP30C2P-F	---
	40A	---	DP40C3P-F
120V AC	20A	DP20C2P-1	---
	30A	DP30C2P-1	DP30C3P-1
	40A	---	DP40C3P-1
	50A	---	DP50C3P-1
	60A	---	DP60C3P-1

Auxiliary contact block for 3- and 4-pole configurations

Description	Ordering Code
Double "Form C" (1NO + 1NC aux) SPDT	CADP40-20

NEMA Pump Panels

Ordering code construction

CR	3	4	1				4					1	A	A	
Pump panel Type 3, 4, 1 = Pump panel w/ disconnect switch															
NEMA size C = Size 1 D = Size 2 E = Size 3 F = Size 4															
Disconnect type 0 = Standard IC Class H/J fuse clips 1 = Higher IC rating, Class R fuse clips															
Overload relay 1 = Thermal OL 4 = No overload X = Class 10-20-30 electronic															
Line voltage 4 = 460/480															
Disconnect type B = 30A C = 60A D = 100A E = 200A															
Control options A = HOA switch, Start PB															
													Electronic Overload Range E = 1.6 - 3.4 F = 3.2 - 6.8 G = 6.5 - 13.5 H = 13 - 27 J = 25 - 50 L = 35 - 70 M = 65 - 135		
													Undervoltage/phase failure A = None		
													Auxiliary contacts A = None		
													Control circuit protection 1 = None		
													Control power A = None C = Fused control circuit		

Field modification - Refer to control catalog for order codes
Auxiliary contacts
Coil conversion
Control power transformer
Pushbuttons, selector switches, pilot lights

NEMA Pump Panels

CR341 (FVNR) full voltage non-reversing pump panels



NEMA Size	Disconnect Type	Line Voltage	Disconnect Size	Horse Power	Overload	Ordering Code
Size 1	Fusible	460-480 Vac	30A	10	None	341C044BAA1AA
Size 2	Fusible	460-480 Vac	60A	25	None	341D044CAA1AA
Size 3	Fusible	460-480 Vac	100A	50	Thermal*	341E014DAA1AA
	Fusible	460-480 Vac	100A	50	None	341E044DAA1AA
	Fusible	460-480 Vac	100A	50	Class 10-20-30 electronic	341E0X4DAA1AAL
Size 4	Fusible	460-480 Vac	200A	100	Thermal*	341F014EAC1AA
	Fusible	460-480 Vac	200A	100	None	341F044EAC1AA
	Fusible	460-480 Vac	200A	100	Class 10-20-30 electronic	341F0X4EAC1AAM

*Thermal overload relays require 1 heater element per phase

NEMA Starters

Enclosed combination starters ordering code construction

CR

A

A

Starter type

3, 0, 8 = Starter w/ disconnect switch, hard-tooled enclosure

4, 0, 8 = Starter w/ disconnect switch, welded enclosure

3, 0, 7 = Starter w/ circuit breaker

NEMA size

B = Size 0

C = Size 1

D = Size 2

E = Size 3

F = Size 4

Enclosure type

T or 1 = Nema 1

Control voltage

0, 2 = 120V, no fuses

F, 2 = 120V, with fuses

1, 4 = 120V, with CPT

Disconnect type

	Non Fused	1, A
30A	200-208vac	R, A
	460-480vac	R, 3
	200-208vac	R, B
	460-480vac	R, 6
60A	200-208vac	R, C
	460-480vac	R, 1
	200-208vac	R, D
	460-480vac	R, 2
100A	15A	T, C
	50A	T, H
	100A	T, N
	175A	T, S

Control options

A = None

Pilot lights

1 = Red run

2 = Green run

5 = Red run, green off

Pushbuttons/ selector switches

A = None

J = Start/Stop PBs

L = HOA switch

M = On/Off switch

S = HOA switch, start PB

Monitoring

A = None

AUX Contacts

A = None

B = 1NO

C = 1NC

D = 1NO/1NC

Overload relay

4 = Thermal OL (NO/NC)

C = Electronic 0.4 - 0.85A

D = Electronic 0.8 - 1.7A

E = Electronic 1.6 - 3.4A

F = Electronic 3.2 - 6.8A

G = Electronic 6.5 - 13.5A

H = Electronic 13 - 27A

J = Electronic 25 - 50A

L = Electronic 35 - 70A

M = Electronic 65 - 135A

Field modification kits - Refer to control catalog for order codes

Auxiliary contacts

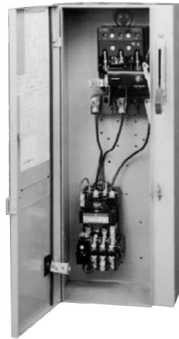
Control power transformer

Coil conversion

Pushbuttons, selector Switches, pilot lights

NEMA Starters

CR300/400 (FVNR) full voltage non-reversing combination starters



NEMA Size	Disconnect Type	Line Voltage	Disconnect Size	Horse Power	Overload	Ordering Code
Size 0	Non-fused	575-600 Vac	30A	5	Electronic 6.5-13amp	308BT021AGAAAAA
Size 0	Non-fused	575-600 Vac	30A	5	Thermal*	308BT021A4AAAAA
Size 1	Non-fused	575-600 Vac	30A	10	Electronic 13-27amp	308CT021AHAAAAA
Size 1	Non-fused	575-600 Vac	30A	10	Thermal*	308CT021A4AAAAA
Size 2	Non-fused	575-600 Vac	60A	25	Thermal*	408D1021A4AAAAA
Size 2	Non-fused	575-600 Vac	60A	25	Electronic 25-50amp	408D1021AJAAAAA
Size 3	Non-fused	575-600 Vac	100A	50	Thermal*	408E1021A4AAAAA
Size 3	Non-fused	575-600 Vac	100A	50	Electronic 35-70amp	408E1021ALAAAAA
Size 4	Non-fused	575-600 Vac	200A	100	Thermal*	408F1021A4AAAAA
Size 4	Non-fused	575-600 Vac	200A	100	Electronic 65-135amp	408F1021AMAAAAA
Size 0	Fusible	200-208 Vac	30A	3	Thermal*	308BT02RA4AAAAA
Size 0	Fusible	200-208 Vac	30A	3	Electronic 6.5-13amp	308BT02RAGAAAAA
Size 0	Fusible	460-480 Vac	30A	5	Thermal*	308BT02R34AAAAA
Size 0	Fusible	460-480 Vac	30A	5	Electronic 6.5-13amp	308BT02R3GAAAAA
Size 1	Fusible	200-208 Vac	30A	5	Thermal*	308CT02RA4AAAAA
Size 1	Fusible	200-208 Vac	30A	5	Electronic 13-27amp	308CT02RAHAAAAA
Size 1	Fusible	200-208 Vac	60A	7.5	Thermal*	408C102RB4AAAAA
Size 1	Fusible	460-480 Vac	30A	10	Thermal*	308CT02R34AAAAA
Size 1	Fusible	460-480 Vac	30A	10	Electronic 13-27amp	308CT02R3HAAAAA
Size 2	Fusible	200-208 Vac	60A	10	Thermal*	408D102RB4AAAAA
Size 2	Fusible	200-208 Vac	60A	10	Electronic 25-50amp	408D102RBJAAAAA
Size 2	Fusible	460-480 Vac	30A	15	Thermal*	308DT02R34AAAAA
Size 2	Fusible	460-480 Vac	30A	15	Electronic 25-50amp	308DT02R3JAAAAA
Size 2	Fusible	460-480 Vac	60A	25	Thermal*	408D102R64AAAAA
Size 2	Fusible	460-480 Vac	60A	25	Electronic 25-50amp	408D102R6JAAAAA
Size 3	Fusible	200-208 Vac	200A	25	Thermal*	408E1F2RD4AAAAA
Size 3	Fusible	200-208 Vac	200A	25	Electronic 35-70amp	408E1F2RDLAAAAA
Size 3	Fusible	460-480 Vac	60A	30	Thermal*	408E102R64AAAAA
Size 3	Fusible	460-480 Vac	60A	30	Electronic 35-70amp	408E102R6LAAAAA
Size 3	Fusible	460-480 Vac	100A	50	Thermal*	408E102R14AAAAA
Size 4	Fusible	460-480 Vac	200A	100	Electronic 65-135amp	408F1F2R2MAAAAAA
Size 4	Fusible	460-480 Vac	100A	60	Electronic 65-135amp	408F102R1MAAAAAA
Size 4	Fusible	460-480 Vac	100A	60	Thermal*	408F102R14AAAAA
Size 4	Fusible	460-480 Vac	200A	100	Thermal*	408F1F2R24AAAAA
Size 4	Fusible	460-480 Vac	100A	50	Electronic 35-70amp	408E102R1LAAAAA
Size 0	Circuit Breaker	200-208 Vac	15A	3	Electronic 6.5-13amp	307BT02TCGAAAAA
Size 0	Circuit Breaker	200-208 Vac	15A	3	Thermal*	307BT02TC4AAAAA
Size 1	Circuit Breaker	200-208 Vac	25A	5	Thermal*	307CT02TE4AAAAA
Size 1	Circuit Breaker	200-208 Vac	40A	10	Thermal*	307CT02TG4AAAAA
Size 1	Circuit Breaker	200-208 Vac	60A	10	Thermal*	307DT02TJ4AAAAA
Size 1	Circuit Breaker	200-208 Vac	25A	5	Electronic 13-27amp	307CT02TEHAAAAA
Size 1	Circuit Breaker	200-208 Vac	40A	7.5	Electronic 13-27amp	307CT02TGHAAAAA
Size 2	Circuit Breaker	200-208 Vac	60A	10	Electronic 25-50amp	307DT02TJJAAAAA

*Thermal overloads relays require 1 heater element per phase

NEMA Starters

Enclosed non-combination starters ordering code construction

CR	3	0	6		1			0	0					
Starter type 3, 0, 6 = Starter only														
NEMA size B = Size 0 C = Size 1 D = Size 2 E = Size 3 F = Size 4														
Enclosure type 1 = NEMA 1														
Control voltage 0, 2 = 120V 0, 3 = 240V 0, 4 = 480V 0, 5 = 600V 2, 3 = 208V 2, 4 = 24V(AC)														
				Disconnect type 0, 0 = None										
				Overload relay A = Thermal OL (1NO) X = Solid State OL										
										Electronic Overload Range (If applicable) C = Electronic 0.4 - 0.85A D = Electronic 0.8 - 1.7A E = Electronic 1.6 - 3.4A F = Electronic 3.2 - 6.8A G = Electronic 6.5 - 13.5A H = Electronic 13 - 27A J = Electronic 25 - 50A L = Electronic 35 - 70A M = Electronic 65 - 135A				
										Pilot lights A = None B = Red across coil				
										Pushbuttons and switches A = None B = Start/Stop PBs D = HOA switch				
										Control Circuit Options A = No CPT, No Fuses D = No CPT, Fused T = CPT with 2 Primary, 1 Secondary Fuse				

NEMA Starters

CR306 (FVNR) full voltage non-reversing non-combination starters



NEMA Size	Line Voltage	Horse Power	Switch Type	Ordering Code
Size 0	460-480 Vac	5	None	306B10200AAAAA
	460-480 Vac	5	HOA	306B10200AADAA
Size 1	460-480 Vac	10	None	306C10200AAAAA
	460-480 Vac	10	HOA	306C10200AADAA
Size 2	460-480 Vac	25	None	306D10200AAAAA
	460-480 Vac	25	HOA	306D10200AADAA
Size 3	460-480 Vac	50	None	306E10200AAAAA
	460-480 Vac	50	HOA	306E10200AADAA
Size 4	460-480 Vac	100	None	306F10200AAAAA
	460-480 Vac	100	HOA	306F10200AADAA

Non-combination Field Installable Accessories

NEMA Size	Start/Stop PB ordering code	HOA Switch ordering code	On/Off switch ordering code	Red pilot light ordering code
Size 0,1	CR305X120N	CR305X130N	CR305X130P	CR305X150N
Size 2	CR305X220N	CR305X230N	CR305X230D	CR305X250N
Size 3,4	CR305X320B	CR305X330B	CR305X330D	CR305X350B

Manual Motor Starters

CR101H, CR101Y (FVNR) full voltage non-reversing manual starters



Toggle Operated Non-reversing Open*

Poles	Line Voltage	Horse Power	Ordering Code
1	115/230/277	1/1/0.75	CR101Y
2	115/230/277	1/1/0.75	CR101H

*For flush or outlet box mounting



Toggle Operated Non-reversing Enclosed NEMA Type 1

Poles	Line Voltage	Horse Power	Indicating Light	Ordering Code
1	115/230/277	1/1/0.75	No	CR101Y1
2	115/230/277	1/1/0.75	No	CR101H1
1	115/230/277	1/1/0.75	Yes*	CR101Y11
2	115/230/277	1/1/0.75	Yes*	CR101H11

*Light available at 115/230-volt lamps only



Lever Operated Non-reversing Enclosed NEMA Type 3/4/12

Poles	Line Voltage	Horse Power	Hubs	Ordering Code
1	115/230/277	1/1/0.75	3/4" hub on one end	CR101H400H
2	115/230/277	1/1/0.75	3/4" hub on one end	CR101Y400H

CR101H, CR101Y Enclosure Components

Description	Ordering Code
Plate Kit, with lock attachment (lock not included)	CR101X3
Standard Cover (front w/ screws)	CR101X5
Combo plate kit, w/Hand-auto switch & 115/230volt neon light	CR101X11
Combo flush plate and box (back)	CR101X14

Manual Motor Starters

CR101H, CR101Y (FVNR) full voltage non-reversing manual starters

CR101 Heaters

Max motor full load amps	Ordering Code
0.48	CR123H055A
0.53	CR123H061A
0.58	CR123H067A
0.65	CR123H074A
0.71	CR123H082A
0.78	CR123H090A
0.86	CR123H099A
0.95	CR123H108A
1.04	CR123H120A
1.14	CR123H132A
1.25	CR123H144A
1.37	CR123H158A
1.49	CR123H172A
1.63	CR123H188A
1.78	CR123H205A
1.95	CR123H224A
2.13	CR123H245A
2.32	CR123H267A
2.53	CR123H291A
2.76	CR123H317A
3.01	CR123H346A
3.27	CR123H377A
3.56	CR123H410A
3.88	CR123H446A
4.22	CR123H486A
4.6	CR123H529A
5	CR123H575A
5.43	CR123H625A
5.9	CR123H680A
6.41	CR123H739A
6.98	CR123H802A
7.6	CR123H873A
8.25	CR123H950A
8.95	CR123H103B
9.75	CR123H112B
10.6	CR123H122B
11.4	CR123H132B
12.5	CR123H144B
13.6	CR123H157B
14.8	CR123H171B
16	CR123H186B

Manual Motor Starters

Spec-Setter (FVNR) full voltage non-reversing manual starters



Toggle Operated Starter Non-reversing Open

General Duty			Motor HP Rating			
Poles	Amp Rating	System voltage	Horse Power 110 Vac	Horse Power 240 Vac	Horse Power 480 & 600 Vac	Ordering Code
2	30	240	---	2	2	TC2228S
3	30/20/20	240/480/600	3	7.5	15	TC2368S



Toggle Operated Non-reversing Enclosed NEMA Type 1

General Duty			Motor HP Rating			
Poles	Amp Rating	System voltage	Horse Power 110 Vac	Horse Power 240 Vac	Horse Power 480 & 600 Vac	Ordering Code
2	30	240	---	2	2	TC2228
3	30/20/20	240/480/600	3	7.5	15	TC2368

Overload relays, open components and accessories

Overload relays



Replace * in product number with appropriate digit from Full Load Current Selection Table below.

Solid state overload relays, 3 pole, 600 VAC

NEMA Size	Continuous Ampere Rating	Mounting Position	Product Number
1	27	Panel Mount	CR324CX*P
2	45	Panel Mount	CR324DX*P
3, 4	90,135	Panel Mount	CR324FX*P
1	27	for MRO & Replacement	CR324CX*S
2	45	for MRO & Replacement	CR324DX*S
3, 4	90,135	for MRO & Replacement	CR324FX*S ^{1,2}
5	270	for MRO & Replacement	CR324GX*S ³

¹If Product No. digit "K" is selected from Full Load Current Selection Table.

²Reset on CR324FX*S overloads is approximately 1" longer than on equivalent bimetal overloads. For ABB 300-Line enclosures, perform the actions noted below:

³CR324GX*S may be used as replacement for bimetal overload on size 5 starters. Use existing CTs.

⁴CR324HX*K kit must be used as solid-state replacement for bimetal overloads on size 6, since CT ratio changes, CTs included.

⁵CR324HX*S may be used as a replacement for existing solid-state overload on size 6. Use existing CTs.

Enclosure Reset Extension Type	Adjustment Required
Threaded Rod (standard)	Cut threaded shaft 1" and adjust for 1/8" gap.
"U" Style, 2 1/8" long	Replace extension with product number 55-512811G005.
"U" Style, 1 1/2" long	Replace extension with product number 55-512811G002.

Solid state overload relay options

Item	NEMA Size	Voltage	Product Number
Remote Reset	1-6	120 VAC	CR324XRRM02
Panel Mount Adapter	1	N/A	CR324CXPMMA
	2	N/A	CR324DXPMMA

Full load current selection table

For continuous rated motors, with a service factor of 1.15 to 1.25, select the heater with maximum motor Amperes equal to or immediately greater than the motor full-load current (provides a maximum of 125 percent protection). For continuous rated motors with no service factor, multiply the full-load current of the motor by 0.90 and use this value to select the heater.

Overload Range for Solid State Starters	NEMA Size	Fuse Max.	Breaker Max.	Insert Digit in Product Number
0.4-0.85	00-1	3	15	C
0.8-1.7	00-1	6	15	D
1.6-3.4	00-1	12	15	E
3.2-6.8	00-1	25	25	F
6.5-13.5	00-1	50	50	G
13-27	00-1	100	100	H
6.5-13.5	2	50	50	G
13-27	2	100	100	H
25-50	2	200	200	J
17-35	3 & 4	125	125	K
35-70	3 & 4	250	250	L
65-135	3 & 4	500	400	M
35-70	5	—	—	N
65-135	5	500	400	P
130-270	5	600	800	Q
130-270	6	1200	800	S
260-540	6	1200	800	T

Overload relays, open components, and accessories

Open components and accessories



Open contactors

Nema Size	Description	Line Voltage	Amp Rating	Ordering Code
Size 0	Contactora	115-120 Vac	20A	305B002
Size 1	Contactora	115-120 Vac	30A	305C002
Size 2	Contactora	115-120 Vac	50A	305D002
Size 3	Contactora	115-120 Vac	100A	305E002
Size 4	Contactora	115-120 Vac	150A	305F002



Open starters

Nema Size	Description	Line Voltage	Amp Rating	Overload	Ordering Code
Size 0	Starter	115-120 Vac	18A	Thermal*	306B002
Size 1	Starter	115-120 Vac	27A	Thermal*	306C002
Size 2	Starter	115-120 Vac	45A	Thermal*	306D002
Size 3	Starter	115-120 Vac	90A	Thermal*	306E002
Size 4	Starter	115-120 Vac	135A	Thermal*	306F002

*Thermal overloads relays require 1 heater element per phase

Pump panel, combination starter, non-combination starter, and contactor
Field Installable Accessories

NEMA Size	1NO AUX ordering code	1NC AUX ordering code	1NO/1NC AUX ordering code
Size 0,1	CR305X100A	CR305X100B	CR305X100C
Size 2	CR305X200A	CR305X200B	CR305X200C
Size 3,4	CR305X300A	CR305X300B	CR305X300C

460 series contactors and accessories



Coil voltage	Poles (NO)	General use	All voltages & loads	Ordering Code
115-120V 60 Hz/110V 50 Hz	4	600 Vac/30A	See Chart**	CR463L40AJA10A0
115-120V 60 Hz/110V 50 Hz	6	600 Vac/30A	See Chart**	CR463L60AJA10A0
115-120V 60 Hz/110V 50 Hz	8	600 Vac/30A	See Chart**	CR463L80AJA10A0

Coil voltage	Poles (NO)	General use	All voltages & loads	Ordering Code
115-120V 60 Hz/110V 50 Hz	4	600 Vac/30A	See Chart**	CR463L40AJA
115-120V 60 Hz/110V 50 Hz	6	600 Vac/30A	See Chart**	CR463L60AJA
115-120V 60 Hz/110V 50 Hz	8	600 Vac/30A	See Chart**	CR463L80AJA

Lighting Contactor Components	Ordering Code
12 POLE ELECTRICALLY HELD BASE, 120V COIL	460BJ
12 POLE ELECTRICALLY HELD BASE, 277V COIL	460BN
1 POLE POWER BLOCK**	460XP31
2 POLE POWER BLOCK**	460XP32
1 POLE AUXILIARY CONTACT (Reversible)	460XB1
2 POLE AUXILIARY CONTACT (Reversible)	460XB2
24V60 HZ/20V50HZ COIL	460XCC
115-120V60 HZ/110V50HZ COIL	460XCJ
208V60 HZ COIL	460XCL
277V60 HZ/240V50HZ COIL	460XCN
ENCLOSURE KIT NEMA 1	460XE1B
ENCLOSURE KIT TYPE 12/3R	460XE2B
OVERSIZED ENCLOSURE KIT TYPE 12/3R	460XE2D
RED/GREEN IND LIGHT KIT 120 V	460XLBj
2WIRE CONTROL MODULE KIT 120V	460XMC
3WIRE CONTROL MODULE KIT 120V	460XMN
HOA-ON/OFF/AUTO SS KIT	460XP4

MAXIMUM VOLTS POLES TO LOAD		LOAD TYPE	MAXIMUM AMPS	AC MOTOR STARTING (Break All Lines)			HP	FLA	UL LISTED INDUSTRIAL ADDC-CONT. EQ.	A800
1 For 1Ø	2 For 1Ø 3 For 3Ø			1Ø	1	18				
12Ø VAC		LED DRIVER / ELECTRONIC BALLAST	10A MAX	110-120V	1Ø 1	18			Wire Range: #14-8 AWG 75°C Copper Wire Only Torque: 35 lbs-in	
27Ø VAC		LED DRIVER / ELECTRONIC BALLAST	3A MAX	110-120V	1Ø 2	12				
27Ø VAC	48Ø VAC	TUNGSTEN	30A MAX	220-240V	1Ø 3	18.2				
34Ø VAC	60Ø VAC	BALLAST	30A MAX	440-480V	1Ø 5	14				
60Ø VAC	60Ø VAC	GENERAL USE / AC RESISTANCE	30A MAX	550-600V	1Ø 5	11.2			Position Block on Base for desired NO versus NC operation Power Contact Block for use with CR40 Series Contactor	
					3Ø 16	17				

POLES TO LOAD			3Ø AMP MAX. LOAD	AC3
1 For 1Ø	2 For 1Ø 3 For 3Ø			
23Ø VAC	48Ø VAC	AC-5s (2ØA ONLY)		
23Ø VAC	23Ø VAC	AC-5s	V 230 400 500 600	kV 1.5 5.5 5.5 5.5
60Ø VAC	60Ø VAC	AC-1		

IEC/EN 60947-1-1
 Ith=30A U=600V
 TORQUE : 3.9 N.m
 AC-15 A600

Softstarters

Section 11

Softstarters

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Softstarters

Open PSR softstarter - Normal duty

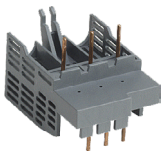


Max Motor Current	Motor Voltage	Control Voltage	In-Line Rating	In-Line Rating	Frame	Dimensions (inches)	Weight (lb)	Ordering Code
3.4A	208-600V	24V AC/DC	0.75 HP /240 VAC	2 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR3-600-11
3.4A	208-600V	120 -240 VAC	0.75 HP /240 VAC	2 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR3-600-70
6.1A	208-600V	24V AC/DC	1.5 HP /240 VAC	3 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR6-600-11
6.1A	208-600V	120 -240 VAC	1.5 HP /240 VAC	3 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR6-600-70
9.0A	208-600V	24V AC/DC	2 HP /240 VAC	5 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR9-600-11
9.0A	208-600V	120 -240 VAC	2 HP /240 VAC	5 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR9-600-70
11.0A	208-600V	24V AC/DC	3 HP /240 VAC	7.5 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR12-600-11
11.0A	208-600V	120 -240 VAC	3 HP /240 VAC	7.5 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR12-600-70
15.2A	208-600V	24V AC/DC	5 HP /240 VAC	10 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR16-600-11
15.2A	208-600V	120 -240 VAC	5 HP /240 VAC	10 HP / 480 VAC	A	5.51H x 1.77W x 4.49D	0.99	PSR16-600-70
24.2A	208-600V	24V AC/DC	7.5 HP /240 VAC	15 HP / 480 VAC	B	6.3H x 1.77W x 5.04D	1.43	PSR25-600-11
24.2A	208-600V	120 -240 VAC	7.5 HP /240 VAC	15 HP / 480 VAC	B	6.3H x 1.77W x 5.04D	1.43	PSR25-600-70
28.0A	208-600V	24V AC/DC	10 HP /240 VAC	20 HP / 480 VAC	B	6.3H x 1.77W x 5.04D	1.43	PSR30-600-11
28.0A	208-600V	120 -240 VAC	10 HP /240 VAC	20 HP / 480 VAC	B	6.3H x 1.77W x 5.04D	1.43	PSR30-600-70
34.0A	208-600V	24V AC/DC	10 HP / 240 VAC	25 HP / 480 VAC	C	7.36H x 2.13W x 6.02D	2.2	PSR37-600-11
34.0A	208-600V	120 -240 VAC	10 HP /240 VAC	25 HP / 480 VAC	C	7.36H x 2.13W x 6.02D	2.2	PSR37-600-70
46.2A	208-600V	24V AC/DC	15 HP /240 VAC	30 HP / 480 VAC	C	7.36H x 2.13W x 6.02D	2.2	PSR45-600-11
46.2A	208-600V	120 -240 VAC	15 HP /240 VAC	30 HP / 480 VAC	C	7.36H x 2.13W x 6.02D	2.2	PSR45-600-70
59.4A	208-600V	24V AC/DC	20 HP /240 VAC	40 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR60-600-11
59.4A	208-600V	120 -240 VAC	20 HP /240 VAC	40 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR60-600-70
68.0A	208-600V	24V AC/DC	25 HP /240 VAC	50 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR72-600-11
68.0A	208-600V	120 -240 VAC	25 HP /240 VAC	50 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR72-600-70
80.0A	208-600V	24V AC/DC	30 HP /240 VAC	60 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR85-600-11
80.0A	208-600V	120 -240 VAC	30 HP /240 VAC	60 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR85-600-70
104.0A	208-600V	24V AC/DC	40 HP /240 VAC	75 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR105-600-11
104.0A	208-600V	120 -240 VAC	40 HP /240 VAC	75 HP / 480 VAC	D	8.66H x 2.76W x 7.09D	4.85	PSR105-600-70

See page 19 in [catalog](#) for full description

Softstarters

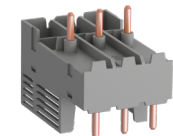
PSR accessories



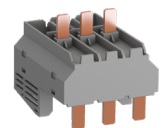
Connection kit
for PSR3...16



Connection kit
for PSR25...30



Connection kit
for PSR37...45



Connection kit
for PSR60...72



Fan



Terminal enlargements



Fieldbus plug adapter

Connection kit					
Article	Breaker type	Pkg qty	Net kg	lb	Ordering Code
PSR3...16	MS116/132	1	0.03	0.08	PSR16-MS116
PSR25...30	MS132	1	0.03	0.08	PSR30-MS132
PSR37...45	MS165	1	0.05	0.11	PSR45-MS165
PSR60...72	MS165	1	0.05	0.11	PSR60-MS165

Fan				
Article	Pkg qty	Net kg	lb	Ordering Code
PSR3...16	1	0.01	0.02	PSR-FAN3-45A
PSR25...30	1	0.01	0.03	PSR-FAN60-105A

Terminal enlargements				
Article	Pkg qty	Net kg	lb	Ordering Code
PSR60... PSR105	1	0.16	0.35	PSLW-72

Note: Wire range mm² 1 x 10...50 mm², 2 x 10...25 mm²

Fieldbus plug adapter with cable				
Article	Pkg qty	Net kg	lb	Ordering Code
Fieldbus plug adapter	1	0.05	0.11	PS-FBPA

Softstarters

Open PSE softstarter - Normal duty



Max Motor Current	Motor Voltage	Control Voltage	In-Line Rating	In-Line Rating	Frame	Dimensions (inches)	Weight (lb)	Ordering Code
18.0A	208-600V	120 -250 VAC	5 HP /240 VAC	10 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE18-600-70
25.0A	208-600V	120 -250 VAC	7.5 HP /240 VAC	15 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE25-600-70
28.0A	208-600V	120 -250 VAC	10 HP /240 VAC	20 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE30-600-70
34.0A	208-600V	120 -250 VAC	10 HP /240 VAC	25 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE37-600-70
42.0A	208-600V	120 -250 VAC	15 HP /240 VAC	30 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE45-600-70
60.0A	208-600V	120 -250 VAC	20 HP /240 VAC	40 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.29	PSE60-600-70
68.0A	208-600V	120 -250 VAC	25 HP /240 VAC	50 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.51	PSE72-600-70
80.0A	208-600V	120 -250 VAC	30 HP /240 VAC	60 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.51	PSE85-600-70
104.0A	208-600V	120 -250 VAC	40 HP /240 VAC	75 HP / 480 VAC	A	9.64H x 3.54W x 7.20D	5.51	PSE105-600-70
130.0A	208-600V	120 -250 VAC	50 HP /240 VAC	100 HP / 480 VAC	B	11.61H x 5.12W x 8.62D	9.26	PSE142-600-70
169.0A	208-600V	120 -250 VAC	60 HP /240 VAC	125 HP / 480 VAC	B	11.61H x 5.12W x 8.62D	9.26	PSE170-600-70
192.0A	208-600V	120 -250 VAC	75 HP /240 VAC	150 HP / 480 VAC	C	17.13H x 7.48W x 9.31D	27.34	PSE210-600-70-1
248.0A	208-600V	120 -250 VAC	100 HP /240 VAC	200 HP / 480 VAC	C	17.13H x 7.48W x 9.31D	30.64	PSE250-600-70-1
302.0A	208-600V	120 -250 VAC	100 HP /240 VAC	200 HP / 480 VAC	C	17.13H x 7.48W x 9.31D	30.64	PSE300-600-70-1
361.0A	208-600V	120 -250 VAC	150 HP /240 VAC	300 HP / 480 VAC	C	17.13H x 7.48W x 9.31D	30.64	PSE370-600-70-1

See page 47 in [catalog](#) for full description

Softstarters

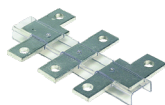
PSE accessories



Cable connectors for CU & AL cables

Cable connectors for Al or Cu building wire

Article	Wire range	No. of cables	Tightening torque in inch-pounds	Pkg qty	Net kg	oz	Previous ordering code	Ordering Code
PSE142 ... PSE170	6 ... 300 kcmil	1	300	3	0.163	5.76	ATK185	1SFN074817R1001
PSE210 ... PSE370	4 ... 400 kcmil	1	375	3	0.059	2.08	ATK300	1SFN075417R1001
PSE210 ... PSE370	4 ... 500 kcmil	2	375	3	0.157	5.52	ATK300/2	ATK300/2



Terminal enlargements

Terminal enlargements

Article	Dimensions hole ø mm²	bar mm²	Pkg qty	Net kg	lb	Ordering Code
PSE18 ... PSE105	6.5	15 x 3	1	0.07	0.14	LW110
PSE142 ... PSE170	10.5	17.5 x 5	1	0.29	0.64	LW185
PSE210 ... PSE370	10.5	20 x 5	1	0.49	1.08	LW300



Terminal kit

Terminal kit

Article	Pkg qty	Net kg	lb	Ordering Code
PSE142...PSE170	1	0.34	0.75	PSLE-185
PSE210...370	1	0.30	0.66	PSLE-300



Terminal extension

Terminal extension

Article	Pkg qty	Net kg	lb	Ordering Code
PSE142 ... PSE170 8.5 17.5 x 5	1	0.25	0.55	LX205
PSE210 ... PSE370 10.5 20 x 5	1	0.35	0.77	LX370

Softstarters

PSE accessories



Terminal shrouds

Terminal shrouds

Article	Pkg qty	Net kg	lb	Ordering Code
PSE18... PSE105, Screw terminals	2	0.07	0.15	LT140-30L
PSE142... PSE170, short for use with cable clamps	2	0.05	0.11	LT185-AC
PSE142... PSE170, long for use with compression lugs	2	0.22	0.49	LT185-AL
PSE210... PSE370, short for use with cable clamps	2	0.09	0.19	LT300-AC
PSE210... PSE370, long for use with compression lugs	2	0.28	0.62	LT300-AL



External keypad

External keypad including a 3m cable

Article	Pkg qty	Net kg	lb	Ordering Code
PSE18 ... PSE370	1	0.13	0.29	PSECK



USB cable

USB cable for Service Engineer Tool

Article	Pkg qty	Net kg	lb	Ordering Code
PSE18 ... PSE370	1	0.10	0.22	PSECA



Fieldbus plug adaptor

Fieldbus plug connection, cable included

Article	Pkg qty	Net kg	lb	Ordering Code
Fieldbus plug adaptor	1	0.15	0.33	PS-FBPA



Terminal extensions retrofit kit

Terminal extensions retrofit kit

Article	Pkg qty	Net kg	lb	Ordering Code
Terminal extensions retrofit kit	1	0.45	0.99	LXR370



Modbus adapter

Modbus adapter

Article	Pkg qty	Net kg	lb	Ordering Code
Modbus adapter	1	0.01	0.02	PS-MBIA

Softstarters

Open PSTX softstarter - Normal duty



Max Motor Current	Motor Voltage	Control Voltage	In-Line Rating	In-Line Rating	Frame	Dimensions (inches)	Weight (lb)	Ordering Code
28.0A	208-600V	120 -250 VAC	10 HP /240 VAC	20 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX30-600-70
34.0A	208-600V	120 -250 VAC	10 HP /240 VAC	25 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX37-600-70
42.0A	208-600V	120 -250 VAC	15 HP /240 VAC	30 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX45-600-70
60.0A	208-600V	120 -250 VAC	20 HP /240 VAC	40 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX60-600-70
68.0A	208-600V	120 -250 VAC	25 HP /240 VAC	50 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX72-600-70
80.0A	208-600V	120 -250 VAC	30 HP /240 VAC	60 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX85-600-70
104.0A	208-600V	120 -250 VAC	40 HP /240 VAC	75 HP / 480 VAC	A	12.4H x 5.9W x 7.7D	13.45	PSTX105-600-70
140.0A	208-600V	120 -250 VAC	50 HP /240 VAC	100 HP / 480 VAC	B	14.8H x 7.8W x 9.3D	21.16	PSTX142-600-70
169.0A	208-600V	120 -250 VAC	60 HP /240 VAC	125 HP / 480 VAC	B	14.8H x 7.8W x 9.3D	21.16	PSTX170-600-70
192.0A	208-600V	120 -250 VAC	75 HP /240 VAC	150 HP / 480 VAC	C	18.5H x 10.2W x 10.9D	27.99	PSTX210-600-70
248.0A	208-600V	120 -250 VAC	100 HP /240 VAC	200 HP / 480 VAC	C	18.5H x 10.2W x 10.9D	27.99	PSTX250-600-70
302.0A	208-600V	120 -250 VAC	100 HP /240 VAC	250 HP / 480 VAC	C	18.5H x 10.2W x 10.9D	27.99	PSTX300-600-70
361.0A	208-600V	120 -250 VAC	150 HP /240 VAC	300 HP / 480 VAC	C	18.5H x 10.2W x 10.9D	27.99	PSTX370-600-70
480.0A	208-600V	120 -250 VAC	200 HP /240 VAC	400 HP / 480 VAC	D	18.1H x 14.2W x 11.1D	55.12	PSTX470-600-70
590.0A	208-600V	120 -250 VAC	200 HP /240 VAC	500 HP / 480 VAC	D	18.1H x 14.2W x 11.1D	55.12	PSTX570-600-70
720.0A	208-600V	120 -250 VAC	300 HP /240 VAC	600 HP / 480 VAC	E	19.29H x 17.126W x 14.5D	101.85	PSTX720-600-70
840.0A	208-600V	120 -250 VAC	350 HP /240 VAC	700 HP / 480 VAC	E	19.29H x 17.126W x 14.5D	101.85	PSTX840-600-70
1062.0A	208-600V	120 -250 VAC	450 HP /240 VAC	900 HP / 480 VAC	F	20.2H x17.1W x 14.5D	141.54	PSTX1050-600-70
1250.0A	208-600V	120 -250 VAC	500 HP /240 VAC	1000 HP / 480 VAC	F	20.2H x17.1W x 14.5D	141.54	PSTX1250-600-70

See page 53 in [catalog](#) for full description

Softstarters

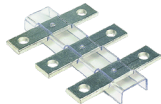
PSTX accessories



—
Cable connectors for Cu
and Al cables

Cable connectors for Al or Cu building wire

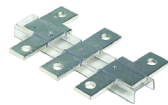
Article	Wire range	No. of cables	Tightening torque in inch-pounds	Pkg qty	Net kg	oz	Previous ordering code	Ordering Code
PSTX142 ... PSTX170	6 ... 300 kcmil	1	300	3	0.163	5.76	ATK185	1SFN074817R1001
PSTX210 ... PSTX370	4 ... 400 kcmil	1	375	3	0.059	2.08	ATK300	1SFN075417R1001
PSTX210 ... PSTX370	4 ... 500 kcmil	2	375	3	0.157	5.52	ATK300/2	ATK300/2
PSTX470 ... PSTX570	2/0 ... 500 kcmil	2	375	3	0.345	12.16	ATK580/2	1SFN075717R1002
PSTX470 ... PSTX570	2/0 ... 500 kcmil	3	375	3	1.077	38	ATK750/3	1SFN076117R1003
PSTX720 ... PSTX1050	2/0 ... 500 kcmil	2	375	3	0.345	12.16	ATK580/2	1SFN075717R1002
PSTX720 ... PSTX1050	2/0 ... 500 kcmil	3	375	3	1.077	38	ATK750/3	1SFN076117R1003
PSTX1250								



Terminal extensions

Terminal extensions

Article	Dimensions hole ø mm²	bar mm²	Pkg qty	Net kg	lb	Ordering Code
PSTX142 ... PSTX170	8.5	17.5 x 5	1	0.25	5.55	LX205
PSTX210 ... PSTX370	10.5	20 x 5	1	0.35	0.77	LX370
PSTX470 ... PSTX570	10.5	25 x 5	1	0.50	1.10	LX460
PSTX720 ... PSTX840	13	40 x 6	1	0.85	1.87	LX750



Terminal enlargements

Terminal enlargements

Article	Dimensions hole ø mm²	bar mm²	Pkg qty	Net kg	lb	Ordering Code
PSTX30 ... PSTX105	6.5	15 x 3	1	0.07	0.15	LW110
PSTX142 ... PSTX170	10.5	17.5 x 5	1	0.25	5.55	LW205
PSTX210 ... PSTX370	10.5	20 x 5	1	0.45	0.99	LW370
PSTX470 ... PSTX570	10.5	25 x 5	1	0.73	1.61	LW460
PSTX720 ... PSTX840	13	40 x 6	1	1.23	2.71	LW750



Terminal shrouds

Terminal shrouds

Article	Description	Pkg qty	Net kg	lb	Ordering Code
PSTX142 ... PSTX170	short for use with cable clamps	2	0.05	0.11	LT205-30C
PSTX142 ... PSTX170	long for use with compression lugs	2	0.22	0.49	LT205-30L
PSTX210 ... PSTX370	short for use with cable clamps	2	0.04	0.08	LT370-30C
PSTX210 ... PSTX370	long for use with compression lugs	2	0.28	0.62	LT370-30L
PSTX210 ... PSTX370	long and deep for use with extending cable clamps, ATK300/2 and OZXB4	2	0.15	0.33	LT370-30D
PSTX470 ... PSTX570	short for use with cable clamps	2	0.10	0.22	LT460-AC
PSTX470 ... PSTX570	long for use with compression lugs	2	0.80	1.76	LT460-AL
PSTX720 ... PSTX1250	short for use with cable clamps	2	0.12	0.27	LT750-AC
PSTX720 ... PSTX1250	long for use with compression lugs	2	0.83	1.82	LT750-AL

Softstarters

PSTX accessories



PSTX USB cable

Article	Pkg qty	Net kg	lb	Ordering Code
PSTX USB Cable	1	0.05	0.12	PSCA-1

USB cable



Fieldbus plug connection, cable included

Article	Pkg qty	Net kg	lb	Ordering Code
Fieldbus plug adaptor	1	0.05	0.11	PS-FBPA

Fieldbus plug adaptor



Anybus connection accessory for communication protocol suitable for PSTX30 ...PSTX1250

Article	Pkg qty	Net kg	lb	Ordering Code
Profibus	1	0.03	0.07	AB-PROFIBUS-1
DeviceNet	1	0.03	0.07	AB-DEVICENET-1
Modbus-RTU	1	0.03	0.07	AB-MODBUS-RTU-1
NEW BACnet IP	1	0.03	0.07	AB-BACNET-IP-2
EtherNet/IP (2-port)	1	0.03	0.07	AB-ETHERNET-IP-2
Modbus/TCP (2-port)	1	0.03	0.07	AB-MODBUS-TCP-2
Profinet (2-port)	1	0.03	0.07	AB-PROFINET-IO-2
NEW BACnet MS/TP	1	0.03	0.07	AB-BACNET-MSTP-1
NEW EtherCAT	1	0.03	0.07	AB-ETHERCAT-IP-2

- Profibus DP-V1
- Modbus RTU



DeviceNet



BACnet MS/TP



- BACnet IP
- EtherCAT
- EtherNet/IP
- Modbus TCP
- Profinet IO

Softstarters

Enclosed PSTX softstarter - Normal duty



Max Motor Current	Motor Voltage	Control Voltage	Heavy duty HP Class 30 starts	Normal duty HP Class 10 starts	Frame	Dimensions (inches)	SCCR Rating	Weight (lb)	Ordering Code
28A	480V	CPT supplied	15 HP / 480 VAC	20 HP / 480 VAC	A	24H x 20W x 12D	65 kA	77	X20-B4-48-ND
68A	480V	CPT supplied	40 HP / 480 VAC	50 HP / 480 VAC	A	24H x 20W x 12D	65 kA	77	X50-B4-48-ND
104A	480V	CPT supplied	50 HP / 480 VAC	75 HP / 480 VAC	A	24H x 20W x 12D	65 kA	78	X75-B4-48-ND
130A	480V	CPT supplied	75 HP / 480 VAC	100 HP / 480 VAC	B	30H x 30W x 12D	65 kA	131	X100-B4-48-ND
169A	480V	CPT supplied	100 HP / 480 VAC	125 HP / 480 VAC	B	30H x 30W x 12D	65 kA	131	X125-B4-48-ND
192A	480V	CPT supplied	125 HP / 480 VAC	150 HP / 480 VAC	C	48H x 36W x 16D	65 kA	280	X150-B4-48-ND
248A	480V	CPT supplied	150 HP / 480 VAC	200 HP / 480 VAC	C	48H x 36W x 16D	65 kA	280	X200-B4-48-ND
302A	480V	CPT supplied	200 HP / 480 VAC	250 HP / 480 VAC	C	48H x 36W x 16D	65 kA	291	X250-B4-48-ND
361A	480V	CPT supplied	250 HP / 480 VAC	300 HP / 480 VAC	C	48H x 36W x 16D	65 kA	300	X300-B4-48-ND
480A	480V	CPT supplied	300 HP / 480 VAC	400 HP / 480 VAC	C	48H x 36W x 16D	65 kA	327	X400-B4-48-ND
590A	480V	CPT supplied	400 HP / 480 VAC	500 HP / 480 VAC	C	48H x 36W x 16D	65 kA	353	X500-B4-48-ND

See [catalog](#) for full description

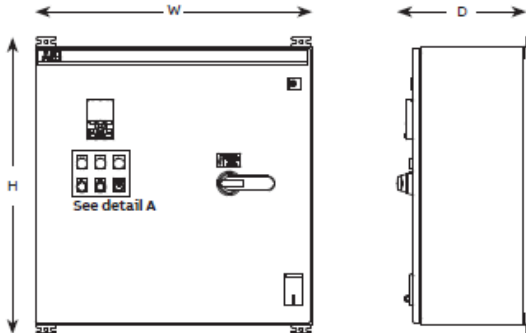


Typical heavy-duty applications include:

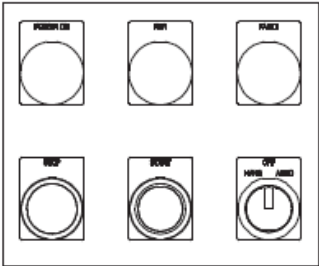
- Centrifugal fan
- Conveyor belt (long)
- Crusher
- Mill
- Mixer
- Stirrer

Typical normal-duty applications include:

- Belt thruster
- Centrifugal pump
- Compressor
- Conveyor belt (short)
- Elevator



Detail A



Door-mounted pilot devices include:

- PSTX keypad
- Hand-off-Auto Selector switch
- Start and stop pushbuttons
- Power on pilot light
- Run pilot light
- Fault pilot light

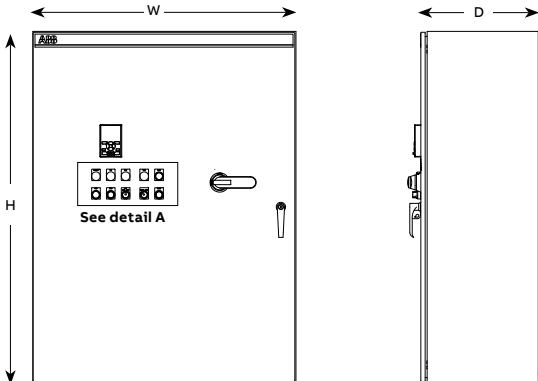
Softstarters

Enclosed PSTX softstarter - Extreme duty

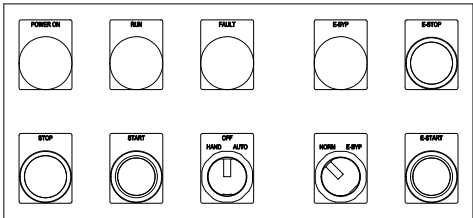


Max Motor Current	Motor Voltage	Control Voltage	Heavy duty HP Class 30 starts	Normal duty HP Class 10 starts	Frame	Dimensions (inches)	SCCR Rating	Weight (lb)	Ordering Code
80A	480V	CPT supplied	50 HP /480 VAC	60 HP /480 VAC	A	24H x 30W x 12D	65 kA	80	X50-B4-48-XD
130A	480V	CPT supplied	75 HP /480 VAC	100 HP /480 VAC	B	30H x 30W x 12D	65 kA	143	X75-B4-48-XD
169A	480V	CPT supplied	100 HP /480 VAC	125 HP /480 VAC	B	30H x 30W x 12D	65 kA	143	X100-B4-48-XD
192A	480V	CPT supplied	125 HP /480 VAC	150 HP /480 VAC	C	48H x 36W x 16D	65 kA	284	X125-B4-48-XD
248A	480V	CPT supplied	150 HP /480 VAC	200 HP /480 VAC	C	48H x 36W x 16D	65 kA	284	X150-B4-48-XD
302A	480V	CPT supplied	200 HP /480 VAC	250 HP /480 VAC	C	48H x 36W x 16D	65 kA	304	X200-B4-48-XD
361A	480V	CPT supplied	250 HP /480 VAC	300 HP /480 VAC	C	48H x 36W x 16D	65 kA	312	X250-B4-48-XD
480A	480V	CPT supplied	300 HP /480 VAC	400 HP /480 VAC	D	72H x 36W x 24D	65 kA	601	X300-B4-48-XD
590A	480V	CPT supplied	400 HP/480 VAC	500 HP/480 VAC	D	72H x 36W x 24D	65 kA	616	X400-B4-48-XD
720A	480V	CPT supplied	500 HP/480 VAC	600 HP/480 VAC	D	72H x 36W x 24D	65 kA	680	X500-B4-48-XD

See **catalog** for full description



Detail A



- Door-mounted pilot devices include:**
- PSTX keypad
 - Hand-off-Auto Selector Switch
 - Start and Stop Pushbuttons
 - Power On Pilot Light
 - Run Pilot Light
 - Fault Pilot Light
 - Normal-E-Bypass Selector Switch
 - E-Bypass Start and Stop Pushbuttons
 - E-Bypass Pilot Light

- Typical heavy-duty applications include:**
- Centrifugal fan
 - Conveyor belt (long)
 - Crusher
 - Mill
 - Mixer
 - Stirrer

- Typical normal-duty applications include:**
- Belt thruster
 - Centrifugal pump
 - Compressor
 - Conveyor belt (short)
 - Elevator

IEC style contactors, overload relays and manual motor starters

Section 12

IEC style contactors, overload relays and manual motor starters

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AF Contactors

Ordering code construction



AF **S** **09** **Z** - **30** - **10** **K** - **21**

Rating

09	25 A, 5 HP	190	250 A, 125 HP
12	28 A, 7.5 HP	205	300 A, 150 HP
16	30 A, 10 HP	265	350 A, 200 HP
26	45 A, 15 HP	305	400 A, 250 HP
30	50 A, 20 HP	370	520 A, 300 HP
38	50 A, 25 HP	400	550 A, 350 HP
40	60 A, 30 HP	460	650 A, 400 HP
52	80 A, 40 HP	580	750 A, 500 HP
65	90 A, 50 HP	750	900 A, 600 HP
80	105 A, 60 HP	1250	1210 A
96	115 A, 60 HP	1350	1350 A, 800 HP
116	160 A, 75 HP	1650	1650 A, 900 HP
140	200 A, 100 HP	2050	2100 A
146	200 A, 100 HP	2650	2700 A

UL/CSA general use amperage at 600V AC, HP at 480V 3-phase motor rating

Type

	Standard
C	AC control application
S	For safety applications
K	Push-In Spring
R	Reversing contactors
Z	Low consumption
ZR	Reversing, low consumption
N	NEMA
B	Railway

Main contacts

30	3 NO + 0 NC (3-pole)
40	4 NO + 0 NC (4-pole)
22	2 NO + 2 NC (4-pole)
04	0 NO + 4 NC (4-pole)***

Auxiliary contacts

00	0 NO + 0 NC
01	0 NO + 1 NC
10	1 NO + 0 NC
11	1 NO + 1 NC
22	2 NO + 2 NC

Coil voltage

11	24-60 V AC/20-60 V DC
12	48-130 V AC/DC
13	100-250 V AC/DC
14	250-500 V AC/DC
20	12-20 V DC**
21	20-60 V AC/DC**
22	48-130 V AC/DC**
23	100-250 V AC/DC**
30	24 V DC**
68	20-60 V DC*
69	48-130 V AC/DC*
70	100-250 V AC/DC*
71	250-500 V AC/DC*
81	24 V AC****
84	110-120 V AC****
80	220-240 V AC****

**low consumption coils
 *coils for AF400-AF750 only
 ***Configuration valid only for AFC16
 ****coils for AFC09-AFC65 only

AF Contactors

Full voltage non-reversing electronic contactors



		Main contacts					
		3 NO + 0 NC (30)				4 NO (40)	2 NO + 2 NC (22)
		Auxiliary contacts					
		none	1 NO	1 NC	1 NO + 1 NC	none	none
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(00)	(00)
24–60 V AC/ 20–60 V DC (11)	25 A, 5 HP (09)	---	AF09-30-10-11	AF09-30-01-11	---	AF09-40-00-11	AF09-22-00-11
	28 A, 7.5 HP (12)	---	AF12-30-10-11	AF12-30-01-11	---	---	---
	30 A, 10 HP (16)	---	AF16-30-10-11	AF16-30-01-11	---	AF16-40-00-11	AF16-22-00-11
	45 A, 15 HP (26)	AF26-30-00-11	---	---	AF26-30-11-11	AF26-40-00-11	AF26-22-00-11
	50 A, 20 HP (30)	AF30-30-00-11	---	---	---	---	---
	50 A, 25 HP (38)	AF38-30-00-11	---	---	---	---	---
	60 A, 30 HP (40)	AF40-30-00-11	---	---	AF40-30-11-11	---	---
	80 A, 40 HP (52)	AF52-30-00-11	---	---	AF52-30-11-11	---	---
	90 A, 50 HP (65)	AF65-30-00-11	---	---	AF65-30-11-11	---	---
	105 A, 60 HP (80)	AF80-30-00-11	---	---	AF80-30-11-11	---	---
	115 A, 60 HP (96)	AF96-30-00-11	---	---	AF96-30-11-11	---	---
	160 A, 75 HP (116)	AF116-30-00-11	---	---	AF116-30-11-11	---	---
	200 A, 100 HP (140)	---	---	---	AF140-30-11-11	---	---
	200 A, 100 HP (146)	---	---	---	AF146-30-11-11	---	---
	250 A, 125 HP (190)	---	---	---	AF190-30-11-11	---	---
	300 A, 150 HP (205)	---	---	---	AF205-30-11-11	---	---
	350 A, 200 HP (265)	---	---	---	AF265-30-11-11	---	---
	400 A, 250 HP (305)	---	---	---	AF305-30-11-11	---	---
	520 A, 300 HP (370)	---	---	---	AF370-30-11-11	---	---
48–130 V AC/ DC (12)	25 A, 5 HP (09)	---	AF09-30-10-12	AF09-30-01-12	---	---	AF09-22-00-12
	28 A, 7.5 HP (12)	---	AF12-30-10-12	---	---	---	---
	30 A, 10 HP (16)	---	AF16-30-10-12	---	---	---	---
	45 A, 15 HP (26)	AF26-30-00-12	---	---	---	---	---
	50 A, 20 HP (30)	AF30-30-00-12	---	---	---	---	---
	50 A, 25 HP (38)	AF38-30-00-12	---	---	---	---	---
	60 A, 30 HP (40)	AF40-30-00-12	---	---	---	---	---
	80 A, 40 HP (52)	AF52-30-00-12	---	---	---	---	---
	90 A, 50 HP (65)	AF65-30-00-12	---	---	---	---	---
	105 A, 60 HP (80)	AF80-30-00-12	---	---	AF80-30-11-12	---	---
	115 A, 60 HP (96)	AF96-30-00-12	---	---	---	---	---
	160 A, 75 HP (116)	---	---	---	AF116-30-11-12	---	---
	200 A, 100 HP (140)	---	---	---	AF140-30-11-12	---	---
	200 A, 100 HP (146)	---	---	---	AF146-30-11-12	---	---
	250 A, 125 HP (190)	---	---	---	AF190-30-11-12	---	---
	300 A, 150 HP (205)	---	---	---	AF205-30-11-12	---	---

Table continues on next page.

AF Contactors

Full voltage non-reversing electronic contactors

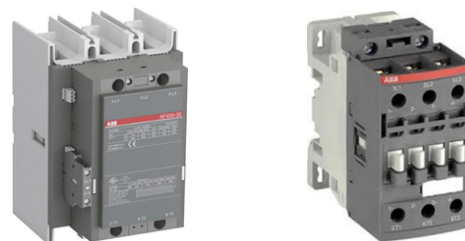


		Main contacts					
		3 NO + 0 NC (30)				4 NO (40)	2 NO + 2 NC (22)
		Auxiliary contacts					
		none	1 NO	1 NC	1 NO + 1 NC	none	none
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(00)	(00)
48–130 V AC/ DC (12)	350 A, 200 HP (265)	---	---	---	AF265-30-11-12	---	---
	400 A, 250 HP (305)	---	---	---	AF305-30-11-12	---	---
	520 A, 300 HP (370)	---	---	---	AF370-30-11-12	---	---
100–250 V AC/ DC (13)	25 A, 5 HP (09)	---	AF09-30-10-13	AF09-30-01-13	---	AF09-40-00-13	AF09-22-00-13
	28 A, 7.5 HP (12)	---	AF12-30-10-13	AF12-30-01-13	---	---	---
	30 A, 10 HP (16)	---	AF16-30-10-13	AF16-30-01-13	---	AF16-40-00-13	AF16-22-00-13
	45 A, 15 HP (26)	AF26-30-00-13	---	---	AF26-30-11-13	AF26-40-00-13	AF26-22-00-13
	50 A, 20 HP (30)	AF30-30-00-13	---	---	AF30-30-11-13	---	---
	50 A, 25 HP (38)	AF38-30-00-13	---	---	AF38-30-11-13	AF38-40-00-13	AF38-22-00-13
	60 A, 30 HP (40)	AF40-30-00-13	---	---	AF40-30-11-13	AF40-40-00-13	AF40-22-00-13
	80 A, 40 HP (52)	AF52-30-00-13	---	---	AF52-30-11-13	---	---
	90 A, 50 HP (65)	AF65-30-00-13	---	---	AF65-30-11-13	---	---
	105 A, 60 HP (80)	AF80-30-00-13	---	---	AF80-30-11-13	---	---
	115 A, 60 HP (96)	AF96-30-00-13	---	---	AF96-30-11-13	---	---
	160 A, 75 HP (116)	AF116-30-00-13	---	---	AF116-30-11-13	---	---
	200 A, 100 HP (140)	---	---	---	AF140-30-11-13	---	---
	200 A, 100 HP (146)	---	---	---	AF146-30-11-13	---	---
	250 A, 125 HP (190)	AF190-30-00-13	---	---	AF190-30-11-13	---	---
	300 A, 150 HP (205)	AF205-30-00-13	---	---	AF205-30-11-13	---	---
	350 A, 200 HP (265)	---	---	---	AF265-30-11-13	---	---
	400 A, 250 HP (305)	---	---	---	AF305-30-11-13	---	---
	520 A, 300 HP (370)	---	---	---	AF370-30-11-13	---	---
250–500 V AC/ DC (14)	25 A, 5 HP (09)	---	AF09-30-10-14	---	---	AF09-40-00-14	---
	28 A, 7.5 HP (12)	---	AF12-30-10-14	---	---	---	---
	30 A, 10 HP (16)	---	AF16-30-10-14	---	---	AF16-40-00-14	---
	45 A, 15 HP (26)	AF26-30-00-14	---	---	---	AF26-40-00-14	---
	50 A, 20 HP (30)	AF30-30-00-14	---	---	---	---	---
	50 A, 25 HP (38)	AF38-30-00-14	---	---	---	---	---
	60 A, 30 HP (40)	AF40-30-00-14	---	---	AF40-30-11-14	---	---
	80 A, 40 HP (52)	AF52-30-00-14	---	---	AF52-30-11-14	---	---
	90 A, 50 HP (65)	AF65-30-00-14	---	---	AF65-30-11-14	---	---
	105 A, 60 HP (80)	AF80-30-00-14	---	---	AF80-30-11-14	---	---
	115 A, 60 HP (96)	AF96-30-00-14	---	---	AF96-30-11-14	---	---
	160 A, 75 HP (116)	---	---	---	AF116-30-11-14	---	---

Table continues on next page.

AF Contactors

Full voltage non-reversing electronic contactors



		Main contacts					
		3 NO + 0 NC (30)				4 NO (40)	2 NO + 2 NC (22)
		Auxiliary contacts					
		none	1 NO	1 NC	1 NO + 1 NC	none	none
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(00)	(00)
250–500 V AC/ DC (14)	200 A, 100 HP (140)	---	---	---	AF140-30-11-14	---	---
	200 A, 100 HP (146)	---	---	---	AF146-30-11-14	---	---
	250 A, 125 HP (190)	---	---	---	AF190-30-11-14	---	---
	300 A, 150 HP (205)	---	---	---	AF205-30-11-14	---	---
	350 A, 200 HP (265)	---	---	---	AF265-30-11-14	---	---
	400 A, 250 HP (305)	---	---	---	AF305-30-11-14	---	---
	520 A, 300 HP (370)	---	---	---	AF370-30-11-14	---	---
20-60 V DC (68)	550 A, 350 HP (400)	---	---	---	AF400-30-11-68	---	---
	650 A, 400 HP (460)	---	---	---	AF460-30-11-68	---	---
	750 A, 500 HP (580)	---	---	---	AF580-30-11-68	---	---
	900 A, 600 HP (750)	---	---	---	AF750-30-11-68	---	---
48–130 V AC/ DC (69)	550 A, 350 HP (400)	---	---	---	AF400-30-11-69	---	---
	650 A, 400 HP (460)	---	---	---	AF460-30-11-69	---	---
100–250 V AC/ DC (70)	550 A, 350 HP (400)	---	---	---	AF400-30-11-70	---	---
	650 A, 400 HP (460)	---	---	---	AF460-30-11-70	---	---
	750 A, 500 HP (580)	---	---	---	AF580-30-11-70	---	---
	900 A, 600 HP (750)	---	---	---	AF750-30-11-70	---	---
	1210 A (1250)	---	---	---	AF1250-30-11-70	---	---
	1350 A, 800 HP (1350)	---	---	---	AF1350-30-11-70	---	---
	1650 A, 900 HP (1650)	---	---	---	AF1650-30-11-70	---	---
	2100 A (2050)	---	---	---	AF2050-30-11-70	---	---
	2700 A (2650)	---	---	---	AF2650-30-11-70	---	---
250 – 500 V AC/DC (71)	550 A, 350 HP (400)	---	---	---	AF400-30-11-71	---	---
	650 A, 400 HP (460)	---	---	---	AF460-30-11-71	---	---

AF Contactors

Electromagnetic contactors for AC control applications



		Main contacts						
		3 NO + 0 NC (30)			4 NO (40)		2 NO + 2 NC (22) 4 NC (04)	
		Auxiliary contacts						
		none	1 NO	1 NC	1 NO + 1 NC	none	none	
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(00)	(00)	
24 V AC (81)	25 A, 5 HP (09)	---	AFC09-30-10-81	---	---	---	---	---
	28 A, 7.5 HP (12)	---	AFC12-30-10-81	---	---	---	---	---
	30 A, 10 HP (16)	---	AFC16-30-10-81	---	---	---	---	AFC16-04-00-81
	45 A, 15 HP (26)	---	---	---	---	---	---	---
	50 A, 20 HP (30)	---	---	---	---	---	---	---
	50 A, 25 HP (38)	---	---	---	---	---	---	---
	60 A, 30 HP (40)	AFC40-30-00-81	---	---	---	---	---	---
	80 A, 40 HP (52)	---	---	---	---	---	---	---
	90 A, 50 HP (65)	---	---	---	---	---	---	---
110-120 V AC (84)	25 A, 5 HP (09)	---	AFC09-30-10-84	AFC09-30-01-84	---	AFC09-40-00-84	AFC09-22-00-84	---
	28 A, 7.5 HP (12)	---	AFC12-30-10-84	AFC12-30-01-84	---	---	---	---
	30 A, 10 HP (16)	---	AFC16-30-10-84	AFC16-30-01-84	---	AFC16-40-00-84	AFC16-22-00-84	AFC16-04-00-84
	45 A, 15 HP (26)	AFC26-30-00-84	---	---	---	AFC26-40-00-84	AFC26-22-00-84	---
	50 A, 20 HP (30)	AFC30-30-00-84	---	---	---	---	---	---
	50 A, 25 HP (38)	AFC38-30-00-84	---	---	---	---	---	---
	60 A, 30 HP (40)	AFC40-30-00-84	---	---	AFC40-30-11-84	---	---	---
	80 A, 40 HP (52)	AFC52-30-00-84	---	---	---	---	---	---
	90 A, 50 HP (65)	AFC65-30-00-84	---	---	AFC65-30-11-84	---	---	---
220-240 V AC (80)	25 A, 5 HP (09)	---	AFC09-30-10-80	---	---	---	---	---
	28 A, 7.5 HP (12)	---	AFC12-30-10-80	---	---	---	---	---
	30 A, 10 HP (16)	---	AFC16-30-10-80	---	---	AFC16-40-00-80	---	---
	45 A, 15 HP (26)	---	---	---	---	---	---	---
	50 A, 20 HP (30)	---	---	---	---	---	---	---
	50 A, 25 HP (38)	---	---	---	---	---	---	---
	60 A, 30 HP (40)	---	---	---	---	---	---	---
	80 A, 40 HP (52)	---	---	---	---	---	---	---
	90 A, 50 HP (65)	---	---	---	---	---	---	---

AF Contactors

Push-in (PI) spring and safety application contactors



		Main contacts				
		3 NO + 0 NC (30)				
		Auxiliary contacts				
		none	1 NO	1 NC	1 NO + 1 NC	2 NO + 2 NC
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(22)
Push-In (PI) Spring contactors						
24–60 V AC/	25 A, 5 HP (09)	---	AF09-30-10K-11	AF09-30-01K-11	---	---
20–60 V DC (11)	28 A, 7.5 HP (12)	---	AF12-30-10K-11	AF12-30-01K-11	---	---
	30 A, 10 HP (16)	---	AF16-30-10K-11	AF16-30-01K-11	---	---
	45 A, 15 HP (26)	AF26-30-00K-11	---	---	---	---
	50 A, 20 HP (30)	AF30-30-00K-11	---	---	---	---
	50 A, 25 HP (38)	AF38-30-00K-13	---	---	---	---
100–250 V AC/ DC (13)	25 A, 5 HP (09)	---	AF09-30-10K-13	AF09-30-01K-13	---	---
	28 A, 7.5 HP (12)	---	AF12-30-10K-13	AF12-30-01K-13	---	---
	30 A, 10 HP (16)	---	AF16-30-10K-13	AF16-30-01K-13	---	---
	45 A, 15 HP (26)	AF26-30-00K-13	---	---	---	---
	50 A, 20 HP (30)	AF30-30-00K-11	---	---	---	---
	50 A, 25 HP (38)	AF38-30-00K-13	---	---	---	---
Contactors for safety applications						
24–60 V AC/	25 A, 5 HP (09)	---	---	---	---	AFS09-30-22-11
20–60 V DC (11)	28 A, 7.5 HP (12)	---	---	---	---	AFS12-30-22-11
	30 A, 10 HP (16)	---	---	---	---	AFS16-30-22-11
	45 A, 15 HP (26)	---	---	---	---	AFS26-30-22-11
	50 A, 20 HP (30)	---	---	---	---	AFS30-30-22-11
	50 A, 25 HP (38)	---	---	---	---	AFS38-30-22-11
	80 A, 40 HP (52)	---	---	---	---	AFS52-30-22-11
	90 A, 50 HP (65)	---	---	---	---	AFS65-30-22-11
	105 A, 60 HP (80)	---	---	---	---	AFS80-30-22-11
	115 A, 60 HP (96)	---	---	---	---	AFS96-30-22-11
100–250 V AC/ DC (13)	25 A, 5 HP (09)	---	---	---	---	AFS09-30-22-13
	30 A, 10 HP (16)	---	---	---	---	AFS16-30-22-13
	45 A, 15 HP (26)	---	---	---	---	AFS26-30-22-13
	50 A, 20 HP (30)	---	---	---	---	AFS30-30-22-13
	80 A, 40 HP (52)	---	---	---	---	AFS40-30-22-13
	80 A, 40 HP (52)	---	---	---	---	AFS52-30-22-13
	90 A, 50 HP (65)	---	---	---	---	AFS65-30-22-13
	105 A, 60 HP (80)	---	---	---	---	AFS80-30-22-13
	115 A, 60 HP (96)	---	---	---	---	AFS96-30-22-13
Low consumption for safety applications						
24 V DC (30)	25 A, 5 HP (09)	---	---	---	AFS09Z-30-22-30	---
	28 A, 7.5 HP (12)	---	---	---	AFS12Z-30-22-30	---
	30 A, 10 HP (16)	---	---	---	AFS16Z-30-22-30	---
	45 A, 15 HP (26)	---	---	---	AFS26Z-30-22-30	---
	50 A, 20 HP (30)	---	---	---	AFS30Z-30-22-30	---
	50 A, 25 HP (38)	---	---	---	AFS38Z-30-22-30	---

AF Contactors

Pre-assembled Reversing contactors



		Main contacts				
		3 NO + 0 NC (30)				
		Auxiliary contacts				
		none	1 NO	1 NC	1 NO + 1 NC	2 NO + 2 NC
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(22)
Reversing contactors						
24–60 V AC/20–60 V DC (11)	25 A, 5 HP (09)	---	---	---	---	AF09R-30-22-11
	28 A, 7.5 HP (12)	---	---	---	---	AF12R-30-22-11
	30 A, 10 HP (16)	---	---	---	---	AF16R-30-22-11
	45 A, 15 HP (26)	---	---	---	---	AF26R-30-22-11
100–250 V AC/DC (13)	25 A, 5 HP (09)	---	---	---	---	AF09R-30-22-13
	28 A, 7.5 HP (12)	---	---	---	---	AF12R-30-22-13
	30 A, 10 HP (16)	---	---	---	---	AF16R-30-22-13
	45 A, 15 HP (26)	---	---	---	---	AF26R-30-22-13

AF Contactors

NEMA contactors and bar connections



		Main contacts				
		3 NO + 0 NC (30)				
		Auxiliary contacts				
		none	1 NO	1 NC	1 NO + 1 NC	2 NO + 2 NC
Coil Voltage	Rating	(00)	(10)	(01)	(11)	(22)
NEMA contactors						
100–250 V AC/ DC (13)	NEMA 00 (25 A, 5 HP)	---	AF09N00-30-10-13	---	---	---
	NEMA 0 (28 A, 7.5 HP)	---	AF12N0-30-10-13	---	---	---
	NEMA 1 (45 A, 15 HP)	AF26N1-30-00-13	---	---	AF26N1-30-11-13	---
	NEMA 2 (60 A, 30 HP)	---	---	---	AF40N2-30-11-13	---
	NEMA 3 (105 A, 60 HP)	---	---	---	AF80N3-30-11-13	---
	NEMA 4 (200 A, 100 HP)	---	---	---	AF140N4-30-11-13	---
	NEMA 5 (350 A, 200 HP)	---	---	---	AF265N5-30-11-13	---
100-250 V AC/ DC (70)	NEMA 6 (50 A, 400 HP)	---	---	---	AF460N6-3011-70	---
	NEMA 7 (900 A, 600 HP)	---	---	---	AF750N7-3011-70	---
Bar Connections						
100-250 V AC/ DC (13)	200 A, 100 HP (146)	---	---	---	AF146-30-11B-13	---

AF Contactors

Low consumption (Z) coil

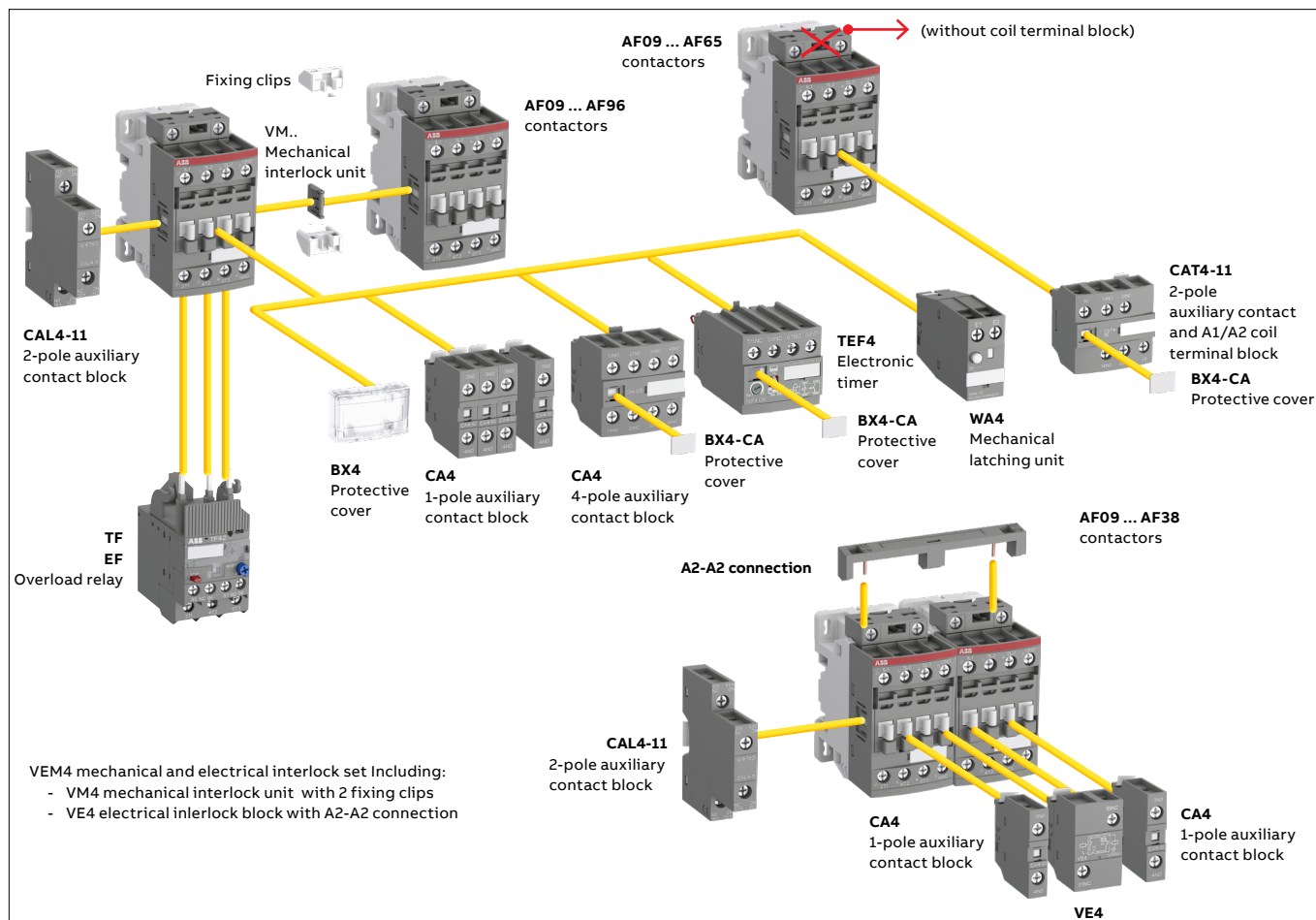


		Main contacts				
		3 NO + 0 NC (30)			4 NO (40)	
		Auxiliary contacts				
Coil voltage	Rating	n/a (00)	1 NO (10)	1 NC (01)	2 NO + 2 NC (22)	n/a (00)
Low consumption - standard						
12-20 V DC (20)	25 A, 5 HP (09)	---	AF09Z-30-10-20	---	---	---
	28 A, 7,5 HP (12)	---	AF12Z-30-10-20	---	---	---
	30 A, 10 HP (16)	---	AF16Z-30-10-20	---	---	---
	45 A, 15 HP (26)	AF26Z-30-00-20	---	---	---	---
	50 A 20 HP (30)	---	---	---	---	---
	50 A, 25 HP (38)	---	---	---	---	---
20-60 V AC/ DC (21)	25 A, 5 HP (09)	---	AF09Z-30-10-21	AF09Z-30-01-21	AF09Z-22-00-21	AF09Z-40-00-21
	28 A, 7,5 HP (12)	---	AF12Z-30-10-21	AF12Z-30-01-21	---	---
	30 A, 10 HP (16)	---	AF16Z-30-10-21	AF16Z-30-01-21	---	AF16Z-40-00-21
	45 A, 15 HP (26)	AF26Z-30-00-21	---	---	---	AF26Z-40-00-21
	50 A, 20 HP (30)	AF30Z-30-00-21	---	---	---	---
	50 A, 25 HP (38)	AF38Z-30-00-21	---	---	---	AF38Z-40-00-21
48-130 V AC/ DC (22)	25 A, 5 HP (09)	---	AF09Z-30-10-22	---	---	---
100-250 V AC/ DC (23)	25 A, 5 HP (09)	---	AF09Z-30-10-23	---	---	---
	28 A, 7,5 HP (12)	---	AF12Z-30-10-23	---	---	---
	30 A, 10 HP (16)	---	AF16Z-30-10-23	---	---	---
24 V DC (30)	25 A, 5 HP (09)	---	AF09Z-30-10-30	---	---	---
	28 A, 7,5 HP (12)	---	AF12Z-30-10-30	---	---	---
	30 A, 10 HP (16)	---	AF16Z-30-10-30	---	---	---
	45 A, 15 HP (26)	AF26Z-30-00-30	---	---	---	---
	50 A, 20 HP (30)	AF30Z-30-00-30	---	---	---	---
	50 A, 25 HP (38)	AF38Z-30-00-30	---	---	---	---
Low consumption - reversing						
20-60 V AC/DC (21)	25 A, 5 HP (09)	---	---	---	AF09ZR-30-22-21	---
	28 A, 7,5 HP (12)	---	---	---	AF12ZR-30-22-21	---
	30 A, 10 HP (16)	---	---	---	AF16ZR-30-22-21	---

Contact **Technical Support** for additional low consumption information.

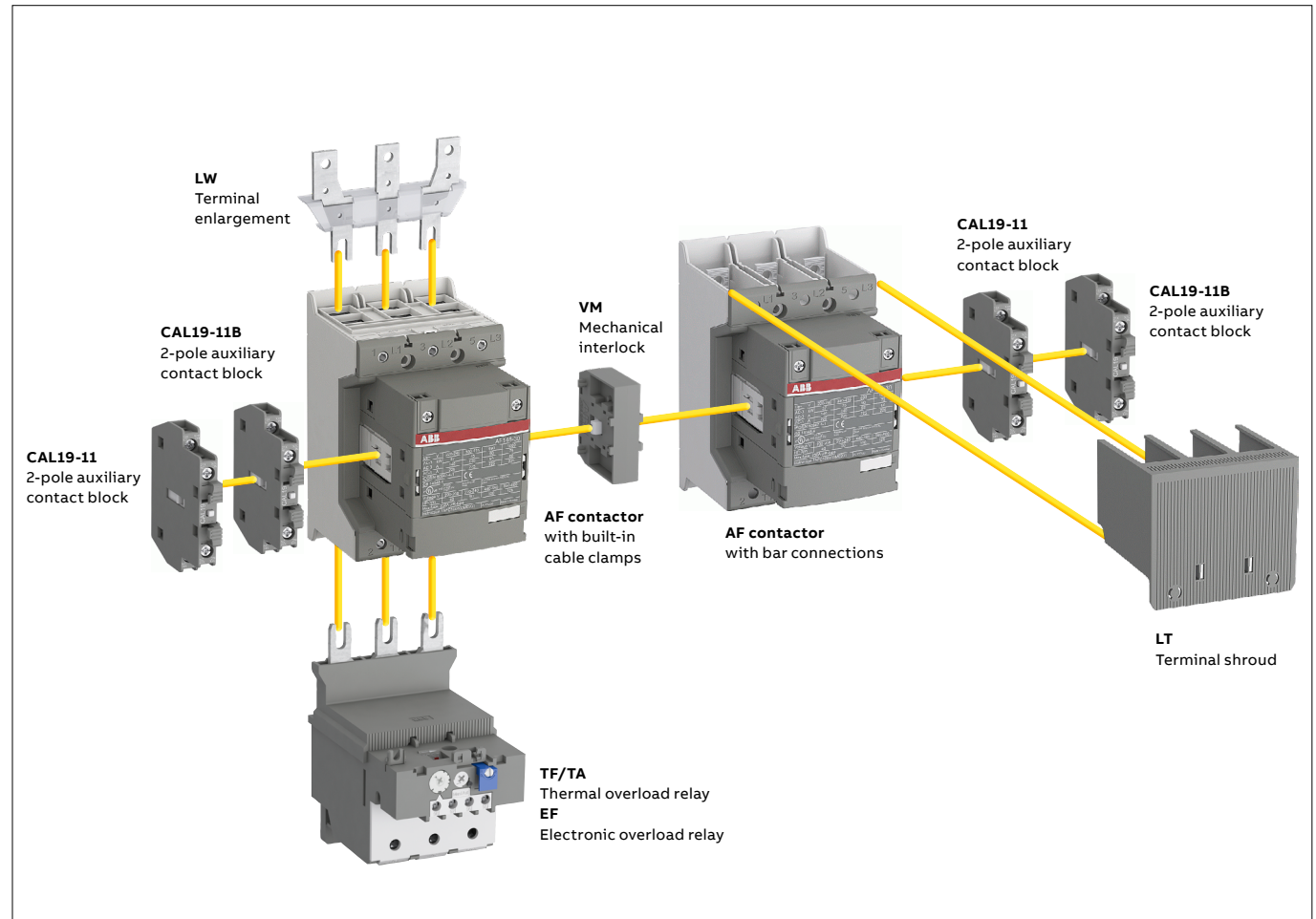
AF09 ... AF96 3-pole contactors

Contactors and main accessories



AF116 ... AF370 3-pole contactors

Contactors and main accessories



AF Contactors

Accessories



Auxiliary contacts

Contacts	For contactors	Ordering Code
Instantaneous auxiliary contact block - front mount		
1 NO	AF09-AF96	CA4-10
1 NC	AF09-AF96	CA4-01
2 NO + 2 NC	AF09-AF16	CA4-22M
3 NO + 1 NC	AF09-AF16	CA4-31M
1 NO + 3 NC	AF09-AF16	CA4-13M
4 NC	AF09-AF16	CA4-04M
2 NO + 2 NC	AF09-AF16	CA4-22U
3 NO + 1 NC	AF09-AF16	CA4-31U
4 NO	AF09-AF16	CA4-40U
2 NO + 2 NC	AF26-AF96	CA4-22E
3 NO + 1 NC	AF26-AF96	CA4-31E
4 NO	AF26-AF96	CA4-40E
4 NC	AF26-AF96	CA4-04E
4 NC	NF	CA4-04N
1 NO + 3 NC	NF	CA4-13N
2 NO + 2 NC	NF	CA4-22N
3 NO + 1 NC	NF	CA4-31N
4 NO	NF	CA4-40N
Auxiliary contact with NO leading and NC lagging contacts - front mount		
1 NO	AF09-AF96	CC4-10
1 NC	AF09-AF96	CC4-01
Instantaneous auxiliary contact block - side mount		
1 NO + 1 NC	AF09-AF96, NF	CAL4-11
1 NO + 1 NC	AF116-AF370	CAL19-11
1 NO + 1 NC	AF116-AF370	CAL19-11B
1 NO + 1 NC	AF400-AF2650	CAL18-11
1 NO + 1 NC	AF400-AF2650	CAL18-11B
Instantaneous auxiliary contact and A1/A2 terminal blocks - front mount		
1 NO + 1 NC	AF09-16	CAT4-11M
1 NO + 1 NC	AF26-AF65	CAT4-11E
Auxiliary contacts for harsh environments		
1 NO	AF116-AF370	CEL19-10
1 NC	AF116-AF370	CEL19-01
1 NO with built-in micro switch IP67	AF400-AF2650	CEL18-10
1 NC with built-in micro switch IP67	AF400-AF2650	CEL18-01
Accessories for Push-In (PI) Spring AF-K contactors		
1 NO Auxiliary contact – Push In Spring	AF09K-AF96K	CA4-10K
1 NC Auxiliary contact – Push In Spring	AF09K-AF96K	CA4-01K
1 NO + 1 NC Auxiliary contact – Push In Spring	AF09K-AF96K	CAL4-11K
Additional coil terminal block	AF09K-AF96K, NF	LDC4K

Additional coil terminal block

Description	For contactors	Ordering Code
Additional coil terminal block	AF09-AF96, NF	LDC4

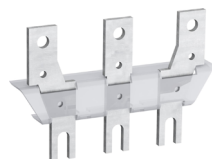
AF Contactors

Accessories



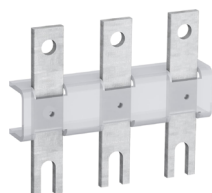
Terminal shrouds

For contactors	For use with	Ordering Code
AF190, AF205	with cable clamps	LT205-30C
AF190, AF205	with compression lugs	LT205-30L
AF190, AF205	shorting bar between contactor and OL	LT205-30Y
AF265-AF370	with cable clamps	LT370-30C
AF265-AF370	for use with terminal lugs ATK300/2	LT370-30D
AF265-AF370	with compression lugs	LT370-30L
AF400, AF460	with cable clamps	LT460-AC
AF400, AF460	with compression lugs	LT460-AL
AF580, AF750	with cable clamps	LT750-AC
AF580, AF750	with compression lugs	LT750-AL



Terminal enlargements

For contactors	Hole dia. mm	Bar mm	Ordering Code
AF116-AF146	6.5	13 X 3	LW140
AF190, AF205	10.5	17.5 X 5	LW205
AF265-AF370	10.5	20 X 5	LW370
AF400, AF460	10.5	25 X 5	LW460
AF580, AF750	13	40 X 6	LW750
AF1250	13	50 X 10	LW1250



Terminal extension

For contactors	Hole dia. mm	Bar mm	Ordering Code
AF116-AF146	6.5	13 X 3	LX140
AF190, AF205	8.5	17.5 X 5	LX205
AF265-AF370	10.5	20 X 5	LX370
AF400, AF460	10.5	25 X 5	LX460
AF580, AF750	13	40 X 6	LX750



Terminal connecting strips

For contactors	Max. nominal continuous current with 3 parallel poles (A)	Ordering Code
AF116-AF146	240	LY140
AF190, AF205	400	LY185
AF265-AF370	670	LY300

Connection sockets

For contactors	Type	Ordering Code
AF116-AF146	3-pole	LL146-30

Table continues on next page.

AF Contactors

Accessories

Terminal lug kits

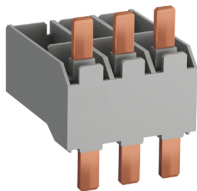
For contactors	Wire size	# lugs per kit	Ordering Code
AF190-AF205	4 AWG-300 MCM	3	ATK185
AF265-AF370	4 AWG-400 MCM	3	ATK300
AF265-AF370	4 AWG-500 MCM	3	ATK300/2
AF400-AF580	2/0 AWG-500 MCM	3	ATK580/2
AF580-AF750	2/0 AWG-500 MCM	3	ATK750/3
AF1350	4/0 AWG-500 MCM	3	ATK1350/4
AF1350-AF1650	1/0 AWG-750 MCM	3	ATK1650/4
AF1350-AF1650	1/0 AWG-750 MCM	3	ATK1650/6

Spare terminal hardware



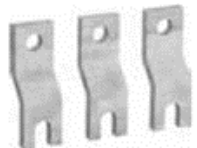
For contactors	Ordering Code
AF190, AF205	LE185
AF265-AF370	LE300
AF400-AF580	LE460
AF580, AF750	LE750

Connecting links — AF contactor to manual motor starter



Contactors	Manual motor starter	Ordering Code
AF09 - AF16	MS116-0.16-MS116-25	BEA16-4
	MS132-0.016-MS132-25	
AF26 - AF38	MS116-0.16-MS116-16	BEA26-4
	MS132-0.16-MS132-10	
	MS116-20-MS116-32	BEA38-4
	MS132-12-MS132-32	
AF40 - AF65	MS165-16-MS165-65	BEA65-4

Connection bars — AF contactor to MCCB
Vertical assembly

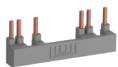
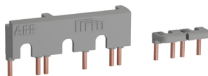
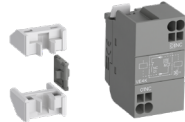
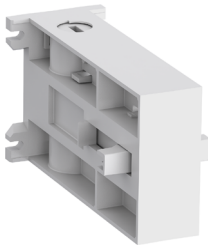
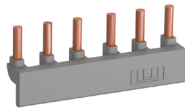
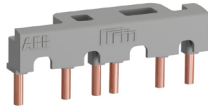


Contactors	MCCB	Ordering Code
AF116 - AF146	XT2	BEA140/XT2
AF116 - AF146	XT3	BEA140/XT3
AF116 - AF146	XT4	BEA140/XT4
AF190, AF205	XT4	BEA205/XT4
AF265, AF305, AF370	XT5	BEA370/XT5
AF400, AF460	XT5	BEA460/XT5
AF580, AF750	XT5	BEA750/XT5

Table continues on next page.

AF Contactors

Accessories



Connection set for reversing contactors

For contactors	Ordering Code
AF09-AF16	BER16-4
AF26-AF38	BER38-4
AF40-AF65	BER65-4
AF80-AF96	BER96-4
AF116-AF146	BER140-4
AF190-AF205	BER205-4
AF265-AF370	BER370-4
AF400-AF460	BEM460-30
AF580-AF750	BEM750-30

Mechanical interlock units

For contactors	Ordering Code
AF09-AF38	VM4
AF40-AF96	VM96-4
AF116-AF370	VM19
AF116-AF146, AF190, AF205	VM140/190
AF190, AF205, AF265-AF370	VM205/265
AF145-AF300	VM300H
AF400-AF1250	VM750H
AF1350-AF2650	VM1650H

Mechanical and electrical interlock set

For contactors	Ordering Code
AF09-AF38	VEM4

Phase-to-phase connection sets

For contactors	Ordering Code
AF116-AF146	BEP140-30
AF190-AF205	BEP205-30
AF265-AF370	BEP370-30
AF400-AF460	BES460-30
AF580-AF750	BES750-30

Star-delta starting connection sets

For contactors	Ordering Code
AF09-AF16	BEY16-4
AF26-AF38	BEY38-4
AF40-AF65	BEY65-4
AF80-AF96	BEY96-4
AF116-AF146	BEY140-4
AF190-AF205	BEY190-4

Table continues on next page.

AF Contactors

Accessories



Electronic timers

Time delay range	Delay type	Auxiliary contacts	Model	Ordering Code
0.1-1 s	ON-delay	1 NO + 1 NC	AF09-AF96	TEF4-ON
10-100 s	OFF-delay	1 NO + 1 NC	AF09-AF96	TEF4-OFF



Interface Relay

For contactors	Ordering Code
AF(Z)09-AF96	AF-RA4

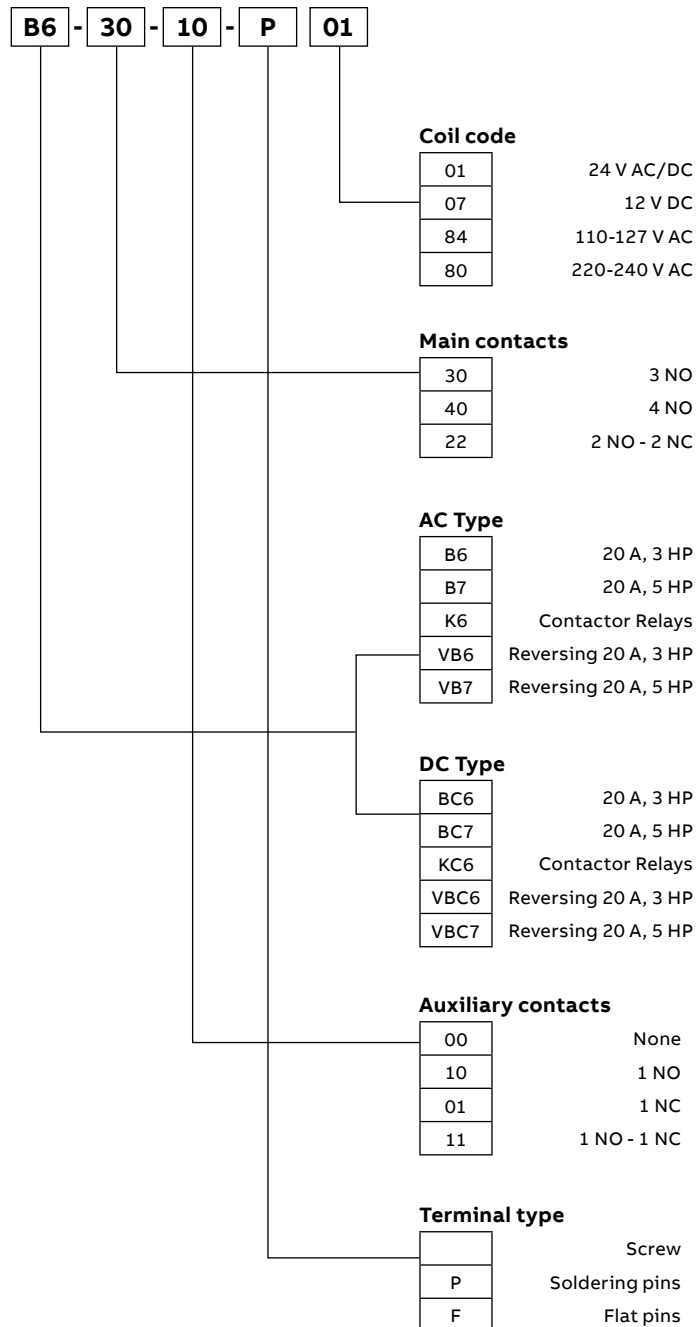
Surge suppressors for AFC only

For contactors	Rated Coil Voltage	Ordering Code
AFC09...AFC38	24...50	RC4-1/50
	50...130	RC4-1/130
	110...260	RC4-1/260
	50...130	RV4-1/130
	110...260	RV4-1/260
AFC40...AFC65	24...50	RC4-2/50
	50...130	RC4-2/130
	110...260	RC4-2/260
	250...440	RC4-2/440

RV4: Surge suppressor fitted with varistor circuit
RC4: Surge suppressor fitted with RC circuit
The use of a surge suppressor will modify the operating time of the contactor or contactor relay

B-Series mini contactors

Ordering code construction



Mini contactors

B-Series

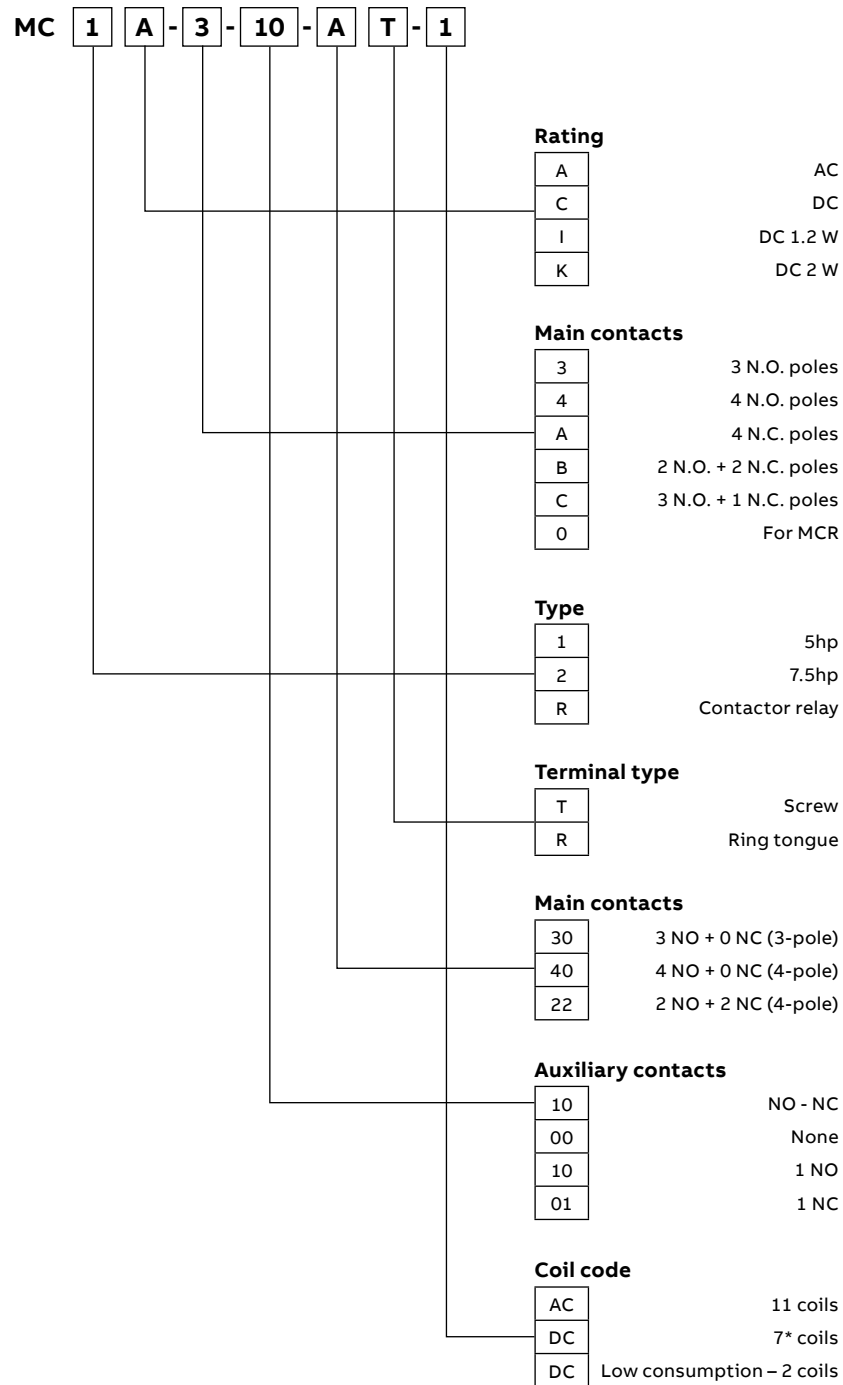
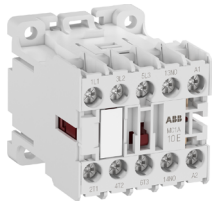


		Main contacts					
		3 NO + 0 NC (30)				4 NO (40)	2 NO + 2 NC (22)
		Auxiliary contacts					
		none	1 NO	1 NC	1 NO + 1 NC	none	none
AC Control Supply	Rating	(00)	(10)	(01)	(11)	(00)	(00)
Screw Terminals							
24 V AC (01)	20 A, 3 HP	---	B6-30-10-01	---	---	---	---
	20 A, 5 HP	---	B7-30-10-01	B7-30-01-01	---	---	B7-22-00-01
110-127 V AC (84)	20 A, 3 HP	---	B6-30-10-84	---	---	B6-40-00-84	---
	20 A, 5 HP	---	B7-30-10-84	B7-30-01-84	---	---	---
220-240 V AC (80)	20 A, 3 HP	---	B6-30-10-80	---	---	---	B6-22-00-80
	20 A, 5 HP	---	B7-30-10-80	---	---	---	---
Flat Pins							
24 V AC (01)	20 A, 5 HP	---	B7-30-10-F01	---	---	---	---
220-240 V AC (80)	20 A, 5 HP	---	---	---	---	B7-40-00-F-80	---
DC Control Supply							
Screw Terminals							
12 V DC (07)	20 A, 3 HP	---	BC6-30-10-07	---	---	---	---
	20 A, 5 HP	---	---	---	---	BC7-40-00-07	---
24 V DC (01)	20 A, 3 HP	---	BC6-30-10-01	BC6-30-01-01	---	BC6-40-00-01	---
	20 A, 5 HP	---	BC7-30-10-01	BC7-30-01-01	---	---	---
Flat Pins							
24 V AC (01)	20 A, 5 HP	---	---	---	---	BC7-40-00-F-01	---
Soldering Pins							
24 V DC (01)	20 A, 3 HP	---	BC6-30-10-P01	---	---	---	---
Reversing DC							
Screw Terminals							
24 V DC (01)	20 A, 3 HP	---	---	VBC6-30-01-01	---	---	---
	20 A, 5 HP	---	VBC7-30-10-01	VBC7-30-01-01	---	---	---
Soldering Pins							
24 V DC (01)	20 A, 3 HP	---	---	VBC6-30-01-P01	---	---	---
Reversing AC							
Screw Terminals							
110-127 V AC (84)	20 A, 3 HP	---	---	VB6-30-01-84	---	---	---
	20 A, 5 HP	---	VB7-30-10-84	VB7-30-01-84	---	---	---



M-Series mini contactors

Ordering code construction



Mini contactors

M-Series



		Main contacts					
		3 NO + 0 NC (30)				4 NO (40)	2 NO + 2 NC (22)
		Auxiliary contacts					
		none	1 NO	1 NC	1 NO + 1 NC	none	none
AC Control Supply	Rating	(00)	(10)	(01)	(11)	(00)	(00)
Screw Terminals							
24 V AC	20 A, 5 HP	---	MC1A-3-10-AT-1	MC1A-3-01-AT-1	---	---	---
	20 A, 7.5 HP	---	MC2A-3-10-AT-1	---	---	---	---
110-115 V AC	20 A, 5 HP	---	MC1A-3-10-AT-J	MC1A-3-01-AT-J	---	MC1A-4-00-AT-J	---
	20 A, 7.5 HP	---	MC2A-3-10-AT-J	---	---	---	---
220-240 V AC	20 A, 5 HP	---	---	MC1A-3-01-AT-N	---	---	---
DC Control Supply							
Screw Terminals							
12 V DC	20 A, 5 HP	---	MC1C-3-10-AT-B	---	---	---	---
24 V DC	20 A, 5 HP	---	MC1C-3-10-AT-D	MC1C-3-01-AT-D	---	---	---
Accessories							
Description				Variants		Ordering Code	
Side mounted instant AUX contact block				MC1-MC2		MACL1-10-AT	
Front mounted instant AUX contact block				MC1-MC2 (EN 50012)		MACN2-02-AT	
Front mounted instant AUX contact block				MC1-MC2 (EN 50005)		MARN4-22-AT	
Surge Suppressor				MC1-MC2 (AC)		MP0A-AE2	
Electronic Timers				MC1-MC2		MREB-C10-AC2	

Mini contactor relays

K-Series, M-Series



K-Mini contactor stocked control relays

Control voltage type	2 NO + 2 NC (22)	3 NO + 1 NC (31)	4 NO + 0 NC (40)
AC Operated			
24 V AC (01)	K6-22Z-01	K6-31Z-01	---
110-127 V AC (84)	K6-22Z-84	K6-31Z-84	K6-40E-84
DC Operated			
12 V DC (07)	---	---	KC6-40E-07
24 V DC (01)	KC6-22Z-01	---	KC6-40E-01

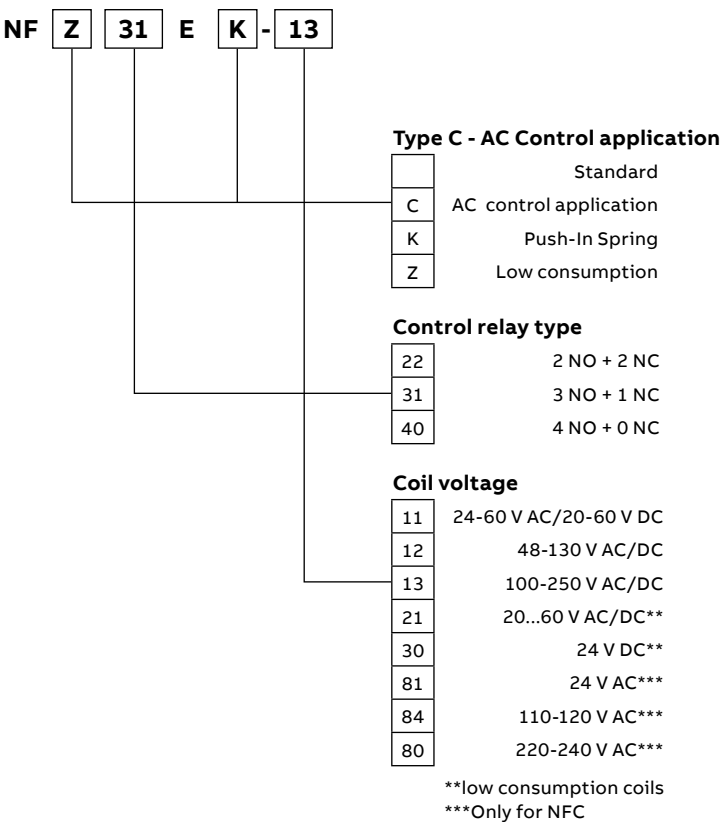
K6/KC6 4-pole mini-contactor relays are space optimized control products mainly used for control functions or for small loads up to AC-15 4 A / 240 V

M-Mini contactor stocked control relays

Control voltage type	2 NO + 2 NC (22)	3 NO + 1 NC (31)	4 NO + 0 NC (40)
AC Operated			
110-115 V AC (J)	MCRA-0-22-AT-J	MCRA-0-31-AT-J	MCRA-0-40-AT-J
DC Operated			
12 V DC (B)	MCRC-0-22-AT-B	---	---
24 V DC (D)	MCRC-0-22-AT-D	MCRC-0-31-AT-D	MCRC-0-40-AT-D
24 V DC (D) - Low Consumption	---	---	MCRK-0-40-AT-D
87-162 V DC (WL)	MCRC-0-22-AT-WL	MCRC-0-31-AT-WL	---

MC mini-contactor relays are space optimized control products mainly used for control functions or for small loads up to AC-15 4 A / 240 V

Contactor relays
 NF Series



Stocked control relays

Control voltage type			Ordering Code
	2 NO + 2 NC	3 NO + 1 NC	4 NO + 0 NC
	-22	-31	-40
Standard			Ordering Code
24-60 V AC/20-60 V DC	NF22E-11	NF31E-11	NF40E-11
48-130 V AC/DC	NF22E-12	NF31E-12	NF40E-12
100-250 V AC/DC	NF22E-13	NF31E-13	NF40E-13
Standard - AFC for AC control			Ordering Code
24 V AC	NFC22E-81	---	---
110-120 V AC	NFC22E-84	NFC31E-84	NFC40E-84
220-240 V AC	NFC22E-80	---	---
Standard - Push In (PI) Spring			Ordering Code
24-60 V AC/20-60 V DC	NF22EK-11	NF31EK-11	NF40EK-11
100-250 V AC/DC	NF22EK-13	NF31EK-13	NF40EK-13
Low consumption			Ordering Code
20-60 V AC/DC	NFZ22E-21	NFZ31E-21	NFZ40E-21
24 V DC	NFZ22E-30	NFZ31E-30	NFZ40E-30
Low consumption - Push In (PI) Spring			Ordering Code
20-60 V AC/DC	NFZ22EK-21	NFZ31EK-21	NFZ40EK-21

NF contactor relays are optimized control products mainly used for control functions up to AC-15 6A / 24-127 V 50/60 Hz

Overload relays

EF electronic overloads and accessories



Electronic overload ordering codes

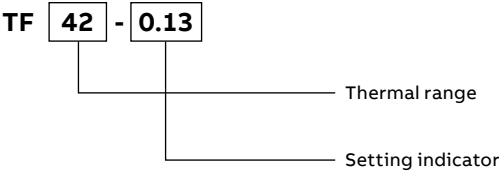
Setting range	Ordering Code
0.10–0.32 A	EF19-0.32
0.30–1.00 A	EF19-1.0
0.80–2.70 A	EF19-2.7
1.90–6.30 A	EF19-6.3
5.70–18.9 A	EF19-18.9
9.0–30.0 A	EF45-30
15.0–45.0 A	EF45-45
20.0–56.0 A	EF65-56
25.0–70.0 A	EF65-70
36.0–100 A	EF96-100
54–150 A	EF146-150
63–210 A	EF205-210
115–380 A	EF370-380
150–500 A	EF460
250–800 A	EF750

Overload accessories for separate/stand-alone mounting

For contactors	Description	Ordering Code
EF19	Single mounting kit	DB19EF
EF45	Single mounting kit	DB45EF

Overload relays

TF thermal overloads



Thermal overload ordering codes

3 phase hp rating at 480V	0.5-10hp	0.5-25hp	15.50hp	30-75hp	50-100hp	50-150hp
Setting range (A)						
0.10-0.13	---	TF42-0.13	---	---	---	---
0.13-0.17	---	TF42-0.17	---	---	---	---
0.17-0.23	---	TF42-0.23	---	---	---	---
0.23-0.31	---	TF42-0.31	---	---	---	---
0.31-0.41	---	TF42-0.41	---	---	---	---
0.41-0.55	---	TF42-0.55	---	---	---	---
0.55-0.74	---	TF42-0.74	---	---	---	---
0.74-1.00	T16-1.0	TF42-1.0	---	---	---	---
1.00-1.30	T16-1.3	TF42-1.3	---	---	---	---
1.30-1.70	T16-1.7	TF42-1.7	---	---	---	---
1.70-2.30	T16-2.3	TF42-2.3	---	---	---	---
2.30-3.10	T16-3.1	TF42-3.1	---	---	---	---
3.10-4.20	T16-4.2	TF42-4.2	---	---	---	---
4.20-5.70	T16-5.7	TF42-5.7	---	---	---	---
5.70-7.60	T16-7.6	TF42-7.6	---	---	---	---
7.60-10.0	T16-10	TF42-10	---	---	---	---
10.0-13.0	T16-13	TF42-13	---	---	---	---
13.0-16.0	T16-16	TF42-16	---	---	---	---
16.0-20.0	---	TF42-20	---	---	---	---
20.0-24.0	---	TF42-24	---	---	---	---
22.0-28.0	---	---	TF65-28	---	---	---
24.0-29.0	---	TF42-29	---	---	---	---
25.0-33.0	---	---	TF65-33	---	---	---
29.0-35.0	---	TF42-35	---	---	---	---
35.0-40.0	---	TF42-38	---	---	---	---
30-40	---	---	TF65-40	---	---	---
36-47	---	---	TF65-47	---	---	---
40-51	---	---	---	TF96-51	---	---
44-53	---	---	TF65-53	---	---	---
50-60	---	---	TF65-60	TF96-60	---	---
57-67	---	---	TF65-67	---	---	---
57-68	---	---	---	TF96-68	---	---
65-78	---	---	---	TF96-78	---	---
75-87	---	---	---	TF96-87	---	---

Table continues on next page.

Overload relays

TF thermal overloads

Thermal overload ordering codes continued

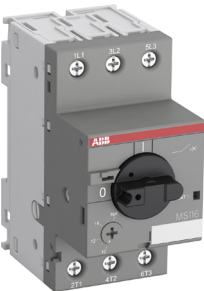
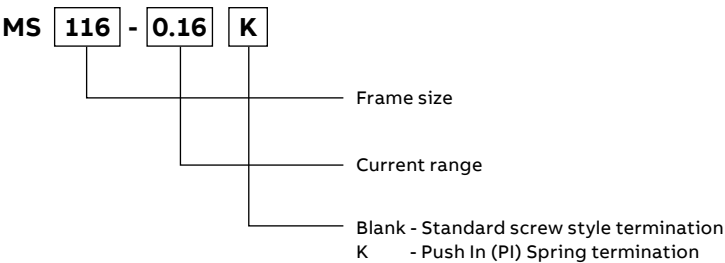
3 phase hp rating at 480V	0.5-10hp	0.5-25hp	15.50hp	30-75hp	50-100hp	50-150hp
Setting range (A)						
66-90	---	---	---	---	TF140DU-90	TA200DU90
84-96	---	---	---	TF96-96	---	---
80-110	---	---	---	---	TF140DU-110	TA200DU110
100-135	---	---	---	---	TF140DU-135	TA200DU135
110-142	---	---	---	---	TF140DU-142	---
110-150	---	---	---	---	---	TA200DU150
130-175	---	---	---	---	---	TA200DU175
150-200	---	---	---	---	---	TA200DU200

Overload accessories for separate/stand-alone mounting

For contactors	Description	Ordering Code
T16	Single mounting kit	DB16-ABB
TF42	Single mounting kit	DB42
TF65	Single mounting kit	DB65
TF96, EF96	Single mounting kit	DB96
TA200DU	Single mounting kit	DB200

Starters

Manual motor starters



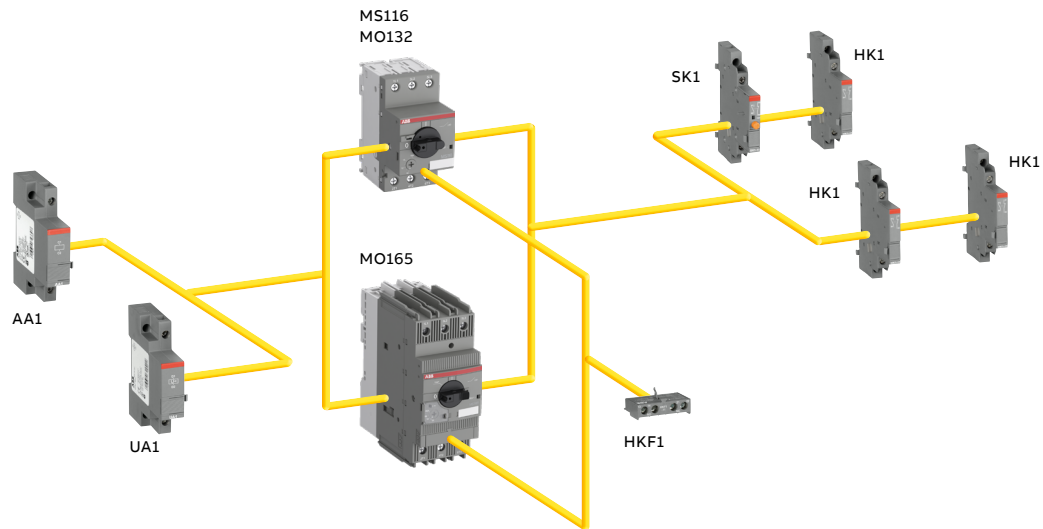
Electronic overload ordering codes

Setting range in Amps	HP @ 480 V	Screw termination			Push-In Spring
		MS116	MS132	MS165	MS132K
0.10–0.16	---	MS116-0.16	MS132-0.16	---	MS132-0.16K
0.16–0.25	---	MS116-0.25	MS132-0.25	---	MS132-0.25K
0.25–0.40	---	MS116-0.4	MS132-0.4	---	MS132-0.4K
0.40–0.63	---	MS116-0.63	MS132-0.63	---	MS132-0.63K
0.63–1.0	---	MS116-1.0	MS132-1.0	---	MS132-1.0K
1.0–1.6	3/4	MS116-1.6	MS132-1.6	---	MS132-1.6K
1.6–2.5	1	MS116-2.5	MS132-2.5	---	MS132-2.5K
2.5–4	2	MS116-4.0	MS132-4.0	---	MS132-4.0K
4–6.3	3	MS116-6.3	MS132-6.3	---	MS132-6.3K
6.3–10	5	MS116-10	MS132-10	---	MS132-10K
8–12	7.5	MS116-12	MS132-12	---	---
10–16	10	MS116-16	MS132-16	MS165-16	MS132-16K
16–20	10	MS116-20	MS132-20	MS165-20	MS132-20K
20–25	15	MS116-25	MS132-25	MS165-25	MS132-25K
25–32	20	MS116-32	MS132-32	MS165-32	MS132-32K
30–42	30	---	---	MS165-42	---
40–54	40	---	---	MS165-54	---
52–65	50	---	---	MS165-65	---
62–73	60	---	---	MS165-73	---
70–80	75	---	---	MS165-80	---

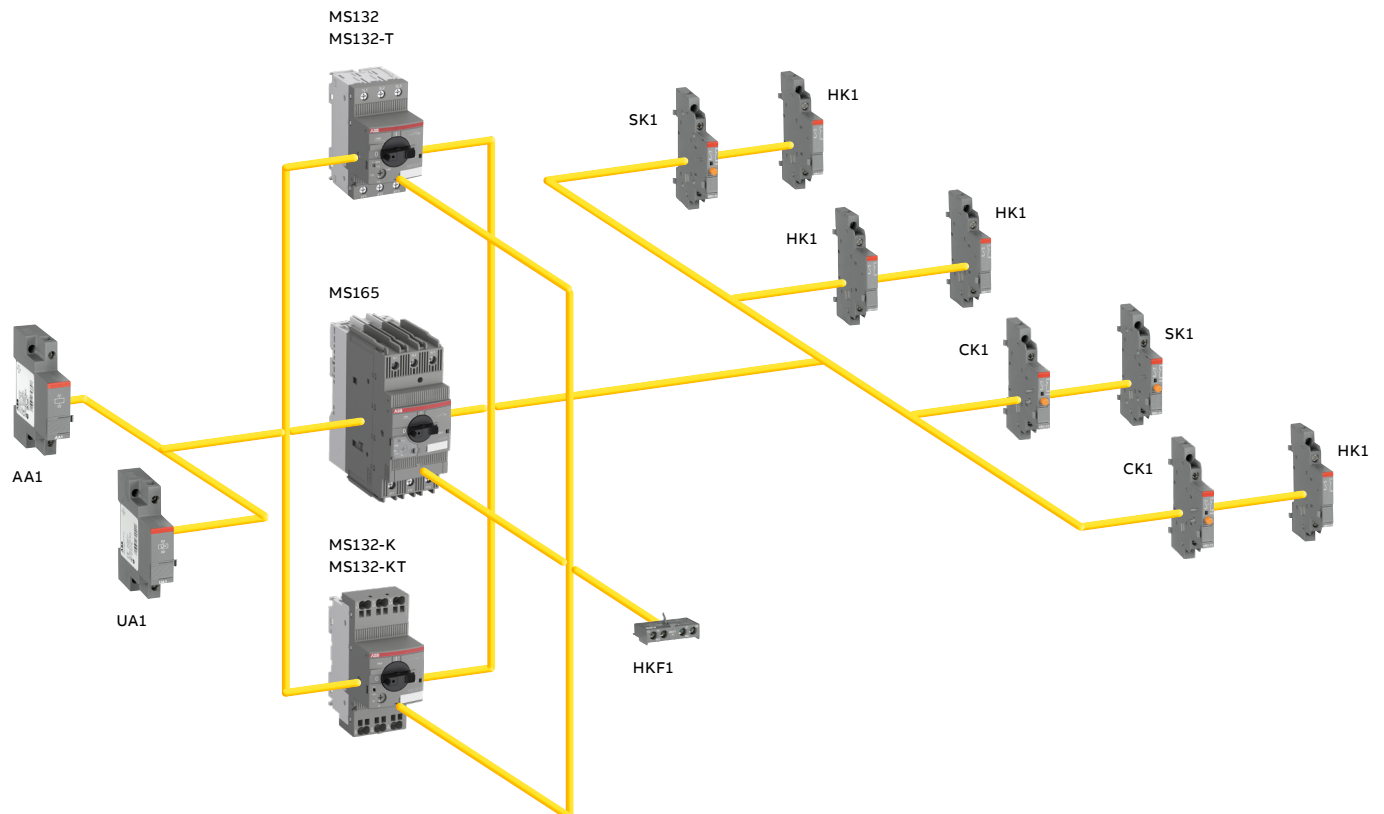
Accessories

MS116, MS132, MS165, MO132, MO165, MS132-T

Manual motor starters with accessories (MS116, MO132, MO165)



Manual motor starters (MS132, MS165) and circuit breakers for transformer protection (MS132-T) with accessories



Note: The combination of MS132-K + UA1 + CK1 is not possible

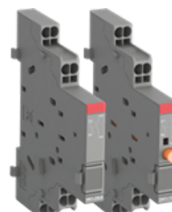
Starters

Manual motor starter accessories



Auxiliary contacts

Contacts	Type	Models	Ordering Code
Auxiliary contacts - front mount			
1 NO + 1 NC	---	MS116, MS132, MS165	HKF1-11
1 NO + 0 NC	---	MS116, MS132, MS165	HKF1-10
2 NO + 0 NC	---	MS116, MS132, MS165	HKF1-20
Auxiliary contacts, Push-in Spring - front mount			
2 NO + 0 NC	---	MS116K, MS132K, MS165K	HKF1-20K
Auxiliary contacts - right mount			
1 NO + 1 NC	---	MS116, MS132, MS165	HK1-11
2 NO + 0 NC	---	MS116, MS132, MS165	HK1-20
0 NO + 2 NC	---	MS116, MS132, MS165	HK1-02
Auxiliary contacts, Push-In Spring - right mount			
1 NO + 1 NC	---	MS116K, MS132K, MS165K	HK1-11K
2 NO + 0 NC	---	MS116K, MS132K, MS165K	HK1-20K
0 NO + 2 NC	---	MS116K, MS132K, MS165K	HK1-02K
Signaling contacts			
1 NO + 1 NC	for tripped alarm	MS116, MS132, MS165	SK1-11
1 NO + 1 NC	for short circuit alarm	MS132, MS165	CK1-11
Signaling contacts, Push-in Spring			
1 NO + 1 NC	for tripped alarm	MS116K, MS132K, MS165K	SK1-11K
2 NO + 0 NC	for tripped alarm	MS116K, MS132K, MS165K	SK1-20K
0 NO + 2 NC	for tripped alarm	MS116K, MS132K, MS165K	SK1-02K



Shunt trips - left mount

Control voltage 60 Hz	Models	Ordering Code
Shunt trips - left mount		
24 V AC	MS116, MS132, MS165	AA1-24
110 V AC	MS116, MS132, MS165	AA1-110
200-240 V AC	MS116, MS132, MS165	AA1-230
Undervoltage releases - left mount		
120 V AC	MS116, MS132, MS165	UA1-120
240 V AC	MS116, MS132, MS165	UA1-230
480 V AC	MS116, MS132, MS165	UA1-415

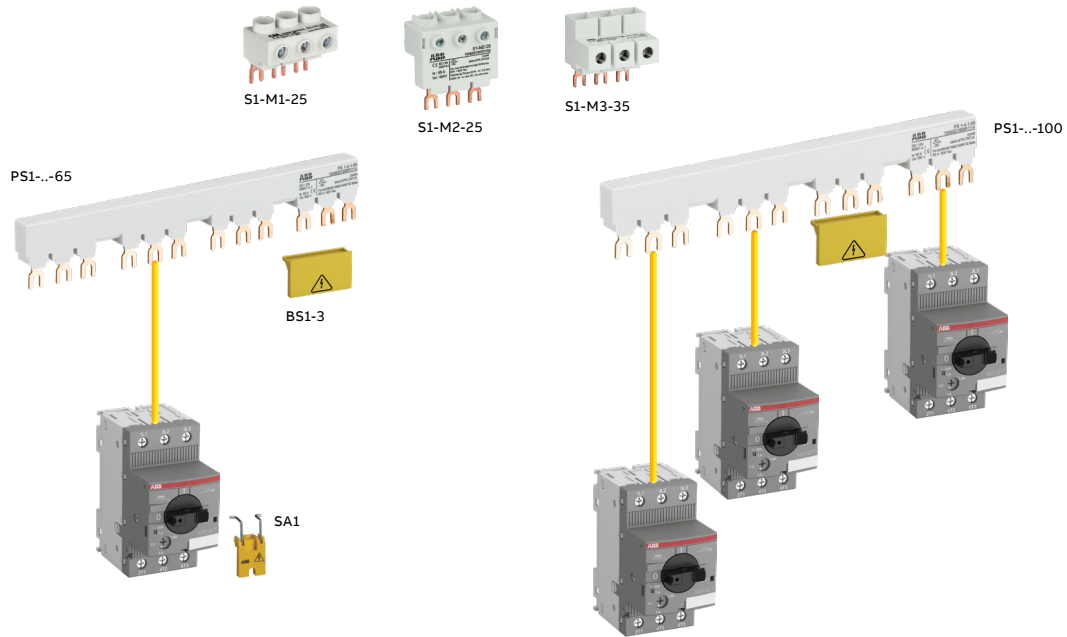


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Accessories

MS116, MS132, MS165, MO132, MO165

Manual motor starters with three-phase busbar systems (MS116, MS132, MO132)

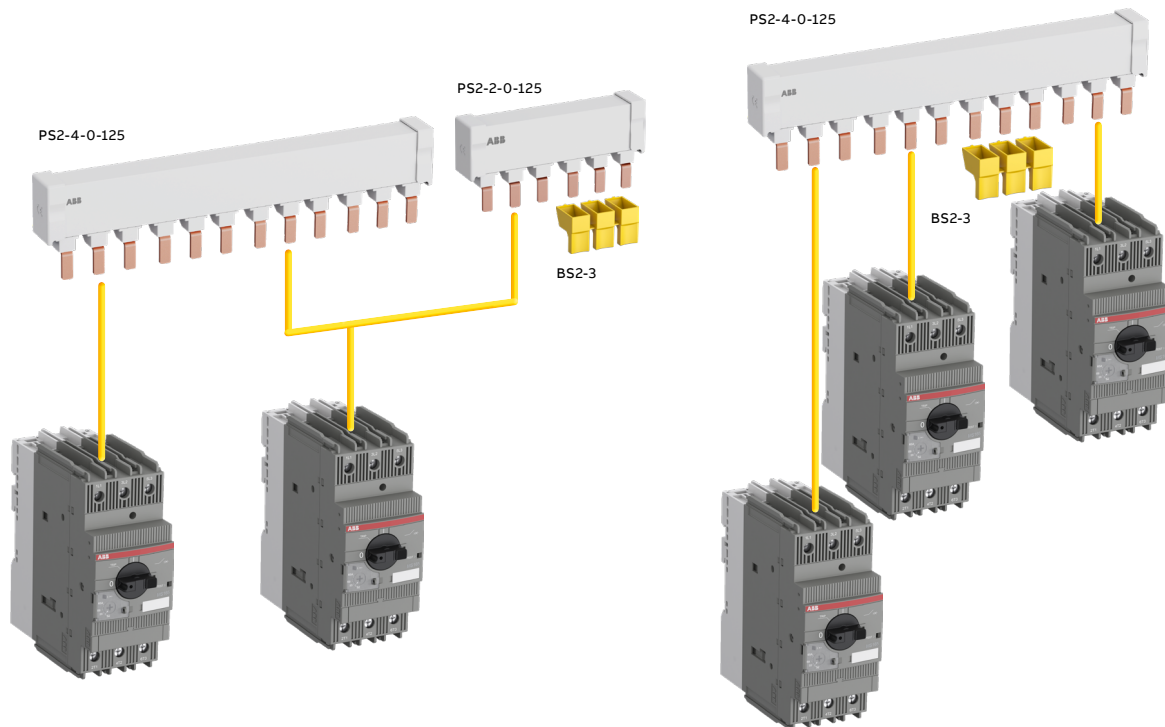


Three-phase busbar up to 65 A

Three-phase busbar up to 100 A

Note: busbars and feeder blocks are only suitable for screw versions.

Manual motor starters with three-phase busbar systems (MS165, MO165)



Three-phase busbar up to 125 A

Three-phase busbar up to 125 A

Manual motor starter accessories



Operational current (A)	No. of MMS	No. of lateral aux.	Models	Ordering Code
65	2	0	MS116, MS132	PS1-2-0-65
65	3	0	MS116, MS132	PS1-3-0-65
65	4	0	MS116, MS132	PS1-4-0-65
65	5	0	MS116, MS132	PS1-5-0-65
65	2	1	MS116, MS132	PS1-2-1-65
65	3	1	MS116, MS132	PS1-3-1-65
65	4	1	MS116, MS132	PS1-4-1-65
65	5	1	MS116, MS132	PS1-5-1-65
65	2	2	MS116, MS132	PS1-2-2-65
65	3	2	MS116, MS132	PS1-3-2-65
65	4	2	MS116, MS132	PS1-4-2-65
65	5	2	MS116, MS132	PS1-5-2-65
92	3	0	MS116, MS132	PS1-3-0-100
92	4	0	MS116, MS132	PS1-4-0-100
92	5	0	MS116, MS132	PS1-5-0-100
92	3	1	MS116, MS132	PS1-3-1-100
92	4	1	MS116, MS132	PS1-4-1-100
92	5	1	MS116, MS132	PS1-5-1-100
125	3	0	MS165	PS2-2-0-125
125	2	2	MS165	PS2-2-2-125
125	2	0	MS165	PS2-3-0-125
125	3	2	MS165	PS2-3-2-125
125	3	0	MS165	PS2-4-0-125
125	4	2	MS165	PS2-4-2-125

Operational current (A)	Mounting form	Models	Ordering Code
63	Flat	MS116, MS132	S1-M1-25
63	High	MS116, MS132	S1-M2-25
63	UL/CSA Type E/F	MS116, MS132	S1-M3-25
92	UL/CSA Type E/F	MS116, MS132	S1-M3-35

Table continues on next page.

Starters

Manual motor starter accessories

General accessories



Description	Models	Ordering Code
Protection cover for busbars	MS116, MS132	BS1-3
Protection cover for busbars	MS165	BS2-3
Padlock + two keys	MS116, MS132	SA2
Lock handle	MS116	SA1
Terminal shroud	MS165	KA165
NEMA Type 12 yellow enclosure with red handle	MS116, MS132	IB132-Y
NEMA Type 12 grey enclosure with black handle	MS116, MS132	IB132-G
Door mount and handle for NEMA Type 12 yellow/red	MS116, MS132	DMS132-Y
Door mount and handle for NEMA Type 12 grey/black	MS116, MS132	DMS132-G
NEMA type 1, 3R, 12 black handle, IO/On-Off	MS116, MS132, MS165, MS49x	MSHD-LB
NEMA type 1, 3R, 12 yellow handle, IO/On-Off	MS116, MS132, MS165, MS49x	MSHD-LY
NEMA type 1, 3R, 12 black handle, IO/On-Off+trip	MS116, MS132, MS165, MS49x	MSHD-LTB
NEMA type 1, 3R, 12 yellow handle, IO/On-Off+trip	MS116, MS132, MS165, MS49x	MSHD-LTY
Shaft supporter	MS116, MS132, MS165, MS49x	MSAH1

Starters

Enclosed direct-on-line starters



DRAF UL enclosed direct-on-line starters

HP 3 phase		
440 V - 480 V	Control voltage	Ordering Code
5	24-60	DRAF09-11U
7.5	24-60	DRAF12-11U
7.5	100-250	DRAF12-13U
10	24-60	DRAF16-11U
10	100-250	DRAF16-13U

Control and protective relays

Section 13

Control and protective relays

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Limit switches

Inventory



Casing width	Electrical connection	Casing material	Actuator type	Contact type	Contact block	Ordering code
20mm	Pre-wired	Metal	45mm rubber roller lever	Snap action	1 NC+1NO	LS20M42B11-U02
30mm	1/2" NPT	Plastic	n/a	Slow action	1 NC+1NO	LS35P80D11-S
30mm	1/2" NPT	Plastic	Adj 3mm SS rod lever	Snap action	1 NC+1NO	LS35P71B11
30mm	1/2" NPT	Plastic	18mm plastic roller lever	Snap action	1 NC+1NO	LS35P41B11
30mm	1/2" NPT	Plastic	18mm plastic roller lever	Snap action	2 NC	LS35P41B02-R
30mm	1/2" NPT	Metal	Adj 18mm plastic roller lever	Snap action	1 NC+1NO	LS35M51B11
30mm	1/2" NPT	Plastic	Adj 18mm plastic roller lever	Snap action	1 NC+1NO	LS35P51B11
30mm	1/2" NPT	Plastic	Adj 18mm plastic roller lever	Snap action	2 NC	LS35P51B02
30mm	Pre-wired	Metal	Plain steel plunger	Snap action	1 NC+1NO	LS20M11B11-U03
30mm	1/2" NPT	Plastic	Plain steel plunger	Snap action	1 NC+1NO	LS35P11B11
30mm	1/2" NPT	Plastic	Plastic roller plunger	Snap action	1 NC+1NO	LS35P13B11
30mm	1/2" NPT	Plastic	Plastic roller, steel plunger	Snap action	1 NC+1NO	LS35P31B11
30mm	1/2" NPT	Plastic	Plastic roller, steel plunger	Slow action	1 NC+1NO	LS35P32D11-R
30mm	1/2" NPT	Plastic	Spring rod	Snap action	1 NC+1NO	LS35P91B11
30mm	1/2" NPT	Plastic	Straight key	Snap action	1 NC+1NO	LS35P16B11
40mm	1/2" NPT	Metal	w/out head	Snap action	1 NC+1NO	LS45M00B11
40mm	1/2" NPT	Metal	Adj 3mm SS rod lever	Snap action	1 NC+1NO	LS45M71B11
40mm	1/2" NPT	Plastic	Adj 3mm SS rod lever	Snap action	2 NC+1NO	LS45P71B11
40mm	1/2" NPT	Metal	Adj 18mm plastic roller lever	Snap action	1 NC+1NO	LS45M51B11
40mm	1/2" NPT	Plastic	Adj 18mm plastic roller lever	Snap action	1 NC+1NO	LS45P51B11
40mm	1/2" NPT	Metal	18mm plastic roller lever	Snap action	1 NC+1NO	LS45M41B11
40mm	1/2" NPT	Metal	22mm SS roller	Snap action	1NC + 1NO	LS45M42B11
40mm	1/2" NPT	Metal	Adj 22mm SS ball-bearing roller	Snap action	1 NC+1NO	LS45M53B11
40mm	1/2" NPT	Metal	Adj 45mm rubber roller lever	Snap action	1 NC+1NO	LS45M54B11
40mm	1/2" NPT	Metal	Adj 52mm rubber roller lever	Snap action	1 NC+1NO	LS45M52B11
40mm	1/2" NPT	Metal	Plastic roller plunger	Snap action	1 NC+1NO	LS45M13B11
40mm	1/2" NPT	Metal	Spring rod	Snap action	1 NC+1NO	LS45M91B11
40mm	1/2" NPT	Metal	SS lateral plunger	Snap action	1 NC+1NO	LS45M21B11
60mm	1/2" NPT	Metal	Adj 18mm plastic roller lever	Snap action	1 NC+1NO	LS75P41B11
60mm	1/2" NPT	Metal	Pull action w/ring	Snap action	1 NC+1NO	LS75M98B11-A
Yellow free movement IPS footswitch					1 NC+1NO	IPSY1A11

See [catalog](#) for full description

Time relays

Inventory



Function	Time ranges	Input voltage	Output contacts	Ordering code
Timer-compact				
Multifunction CT-MFC	(0.05s-100h)	24-48VDC/24-240VAC	1 c/o	1SVR508020R0000
Multifunction CT-MFC	(0.05s-100h)	12-240VAC/DC	2 c/o	1SVR508020R1100
ON-delay CT-ERC	(0.05s-100h)	24-48VDC/24-240VAC	1 c/o	1SVR508100R0000
OFF-delay w/ auxilliary voltage CT-AHC	(0.05s-100h)	24-48VDC/24-240VAC	1 c/o	1SVR508110R0000
Timer-MDRC				
Multifunction CT-MFD.12	(0.05s-100h)	24-240V AC/24-48V DC	1 c/o	1SVR500020R0000
Multifunction CT-MFD.21	(0.05s-100h)	24-240V AC/24-48V DC	2 c/o	1SVR500020R1100
ON-delay CT-ERD.12	(0.05s-100h)	24-240V AC/24-48V DC	1 c/o	1SVR500100R0000
ON-delay CT-ERD.22	(0.05s-100h)	24-240V AC/24-48V DC	2 c/o	1SVR500100R0100
OFF-delay CT-AHD.12	(0.05s-100h)	24-240V AC/24-48V DC	1 c/o	1SVR500110R0000
OFF-delay CT-AHD.22	(0.05s-100h)	24-240V AC/24-48V DC	2 c/o	1SVR500110R0100
Flasher CT-EBD.12	(0.05s-100h)	24-240V AC/24-48V DC	1 c/o	1SVR500150R0000
Pulse generator CT-TGD.12	(0.05s-100h)	24-240V AC/24-48V DC	1 c/o	1SVR500160R0000
Timer-sophisticated				
Multifunction CT-MFS.21S	(0.05s-300h)	24-240VAC/DC	2 c/o	1SVR730010R0200
Multifunction CT-MVS.21S	(0.05s-300h)	24 - 48V DC/24 - 240V AC	2 c/o	1SVR730020R0200
Multifunction CT-MXS.22S	(0.05s-300h)	24 - 48V DC/24 - 240V AC	2 c/o	1SVR730030R3300
Impulse and flasher CT-WBS.22S	(0.05s-300h)	24 - 48V DC/24 - 240V AC	2 c/o	1SVR730040R3300
ON-delay CT-ERS.22S	(0.05s-300h)	24 - 48V DC/24 - 240V AC	2 c/o	1SVR730100R3300
ON-delay CT-ERS.21S	(0.05s-300h)	24 - 48V DC/24 - 240V AC	2 c/o	1SVR730100R0300
OFF-delay CT-ARS.21S	0.05 s to 300 h	24-240VAC/DC	2 c/o	1SVR730120R3300

See [catalog](#) for full description

Type selection

	multi-functional	single-functional	multi-functional	single-functional
Timing function	CT-C		CT-S	
☒ ON-delay	CT-MFC, CT-MKC	CT-ERC	CT-MVS, CT-MFS, CT-MBS, CT-WBS	CT-ERS
■ OFF-delay	CT-MFC, CT-MKC, CT-ARC	CT-AHC	CT-MVS, CT-MFS, CT-MBS	CT-APS, CT-AHS, CT-ARS
☒■ ON- and OFF-delay			CT-MVS, CT-MXS, CT-MFS, CT-MBS	
1☒ Impulse-ON	CT-MFC, CT-MKC	CT-VWC	CT-MVS, CT-MFS, CT-MBS, CT-WBS	
1■ Impulse-OFF	CT-MFC, CT-MKC, CT-ARC		CT-MVS, CT-MFS, CT-MBS	
1☒ Impulse-ON and OFF			CT-MXS	
☒ Flasher starting with ON	CT-MFC, CT-MKC	CT-EBC	CT-MFS, CT-MBS, CT-WBS	
☒ Flasher starting with OFF	CT-MFC, CT-MKC	CT-EBC	CT-MFS, CT-MBS, CT-WBS	
☒ Flasher starting with ON or OFF			CT-MVS	
☒ Pulse generator starting with ON or OFF		CT-TGC	CT-MXS	
☐ Pulse former	CT-MFC, CT-MKC		CT-MVS, CT-MFS, CT-MBS	
△ Star-delta change-over		CT-SDC, CT-SAC		CT-SDS
△1☒ Star-delta change-over with impulse			CT-MVS.2x, CT-MFS, CT-MBS	
☒+ ☒1☒ ■1☒ ☐ further functions (depending on device)			CT-MVS, CT-MXS, CT-MFS, CT-MBS, CT-WBS	
Alternating without time delay		CT-PAC		

Pluggable relays

PCB and miniature relays



Pluggable interface relays

Description	Input Voltage	Output type	Contacts	Output contacts	Output rating	Ordering code
Pcb relays (CR-P)						
Relay	24V DC	Electromechanical	Standard	1 c/o	250V 16A	1SVR405600R1000
Relay	230V AC	Electromechanical	Standard	1 c/o	250V 16A	1SVR405600R3000
Relay	24V AC	Electromechanical	Standard	2 c/o	250V 8A	1SVR405601R0000
Relay	24V DC	Electromechanical	Standard	2 c/o	250V 8A	1SVR405601R1000
Relay	120V AC	Electromechanical	Standard	2 c/o	250V 8A	1SVR405601R2000
Logic socket w/ separation	---	---	---	---	---	1SVR405650R0000
Standard socket 1 or 2 c/o	---	---	---	---	---	1SVR405650R1000
Miniature relays (CR-M)						
Relay w/out LED	24V DC	Electromechanical	Standard	2 c/o	250V 12A	1SVR405611R1000
Relay w/LED	24V DC	Electromechanical	Standard	2 c/o	250V 12A	1SVR405611R1100
Relay w/LED	24V AC	Electromechanical	Standard	2 c/o	250V 12A	1SVR405611R0100
Relay w/LED	110V AC	Electromechanical	Standard	2 c/o	250V 10A	1SVR405611R7100
Relay w/LED	120V AC	Electromechanical	Standard	2 c/o	250V 12A	1SVR405611R2100
Relay w/out LED	24V DC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405612R1000
Relay w/out LED	110V AC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405612R7000
Relay w/out LED	120V AC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405612R2000
Relay w/out LED	24V DC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R1000
Relay w/out LED	110V AC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R7000
Relay w/out LED	120V AC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R2000
Relay w/LED	24V DC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R1100
Relay w/LED	24V AC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R0100
Relay w/LED	110V AC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R7100
Relay w/LED	120V AC	Electromechanical	Standard	4 c/o	250V 6A	1SVR405613R2100
Relay w/LED gold-plated	120V AC	Electromechanical	Gold-plated	4 c/o	250V 6A	1SVR405618R2100

See [catalog](#) for full description

Accessories



Description	Input Voltage	Output type	Ordering code
Miniature relays (CR-M) only			
Socket for 2 c/o	---	---	1SVR405651R1000
Socket for 3 c/o	---	---	1SVR405651R2000
Socket for 2 or 4 c/o	---	---	1SVR405651R3000
Logic socket 2 or 4 c/o	---	---	1SVR405651R3100
Holder for CR-M socket	---	---	1SVR405659R1000
Metal holder for CR-M	---	---	1SVR405659R1100
PCB (CR-P) and miniature relays (CR-M)			
Polarity module	6 - 220V DC	A1+, A2-	1SVR405651R0000
Diode/LED/rev/free whl module	6-24V DC	Green, A1+, A2-	1SVR405652R1000

Pluggable relays

Universal relays



Universal relays						
Description	Input voltage	Output type	Contacts	Output	Output rating	Ordering code
Relay w/out LED	24V DC	Electromechanical	Standard	2 c/o	250V 10A	1SVR405621R1000
Relay w/out LED	230V AC	Electromechanical	Standard	2 c/o	250V 10A	1SVR405621R3000
Relay w/LED	110V AC	Electromechanical	Standard	2 c/o	250V 10A	1SVR405621R7100
Relay w/LED	120V AC	Electromechanical	Standard	2 c/o	250V 10A	1SVR405621R2100
Relay w/out LED	120V AC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405622R2000
Relay w/LED	24V DC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405622R1100
Relay w/LED	120V AC	Electromechanical	Standard	3 c/o	250V 10A	1SVR405622R2100
Socket for 2 c/o & module	---	---	---	---	---	1SVR405670R0000
Socket for 3 c/o & module	---	---	---	---	---	1SVR405660R0000
Holder for CR-U socket	---	---	---	---	---	1SVR405669R0000

See [catalog](#) for full description

Relays

Slim, boxed electromechanical and solid state



Interface relays

Description	Input voltage	Output type	Contacts	Output	Output rating	Ordering code
Slim (CR-S)						
Pluggable relay	24 V DC	Electromechanical	Standard	1 c/o	250V 6A	1SVR405501R3010
relay + socket, screw	24 V AC/DC	Electromechanical	Standard	1 c/o	250V 6A	1SVR405541R3110
relay + socket, spring	110 V AC/DC	Electromechanical	Standard	1 c/o	250V 6A	1SVR405541R6210
Boxed (R600)						
Interface relay	24 V AC/DC	Electromechanical	Standard	1 c/o	250V 3mA- 6A	1SNA645001R0300
Interface relay	24 V DC	Electromechanical	Standard	1 c/o	250V 10mA- 6A	1SNA645071R0000
Interface relay	115V AC/DC	Electromechanical	Standard	1 c/o	250V 10mA- 6A	1SNA645003R0500
Interface relay, spring	24 V AC/DC	Electromechanical	Standard	1 c/o	250V 10mA- 6A	1SNA645501R0500
Interface relay	5 - 12 V DC	Transistor	Solid state	---	250V 100mA	1SNA645047R0000
Interface relay	5 - 12 V DC	MOS-FET	Solid state	---	250V 2A	1SNA645050R1700
Interface relay	24 V DC	Transistor	Solid state	---	250V 100mA	1SNA645021R2600
Interface relay	24 V DC	MOS-FET	Solid state	---	250V 2A	1SNA645051R0400
Interface relay	24 V DC	Triac	Solid state	---	250V 2A	1SNA645029R0600
Interface relay	24 V DC	Electromechanical	Gold-plated	1 c/o	250V 3mA- 6A	1SNA645072R0000
Interface relay	24 V AC/DC	Electromechanical	Gold-plated	1 c/o	250V 3mA- 6A	1SNA645005R0700
Interface relay	24 V AC/DC	Electromechanical	Gold-plated	2 c/o	250V 1mA - 8A	1SNA645012R2500
Interface relay	115V AC/DC	Electromechanical	Gold-plated	1 c/o	250V 3mA- 6A	1SNA645007R0100
Interface relay	115V AC/DC	Electromechanical	Gold-plated	2 c/o	250V 1mA - 8A	1SNA645041R0200

See [catalog](#) for full description

Power supplies

Sophisticated, economy and three-phase



Rated input voltage	Output voltage	Output current	Output power	Ordering code
Standard CP-S.1				
100-240 V AC / 100-250 V DC	24V	3A	72W	1SVR320361R1000
100-240 V AC / 100-250 V DC	24V	5A	120W	1SVR320561R1000
100-240 V AC / 100-250 V DC	24V	10A	240W	1SVR320661R1000
100-240 V AC / 100-250 V DC	24V	20A	480W	1SVR320761R1000
110-240 V AC / 110-250 V DC	24V	40A	960W	1SVR320861R1000
Economy CP-E				
100 - 240 V AC	5 V DC	3A	15W	1SVR427033R3000
100 - 240 V AC	12 V DC	2.5A	30W	1SVR427032R1000
115 / 230 V AC	12 V DC	10A	120W	1SVR427035R1000
100 - 240 V AC	24 V DC	0.75 A	18W	1SVR427030R0000
100 - 240 V AC	24 V DC	1.25 A	30W	1SVR427031R0000
100 - 240 V AC	24 V DC	2.5 A	60W	1SVR427032R0000
115 / 230 V AC	24 V DC	5A	120W	1SVR427034R0000
115 / 230 V AC	24 V DC	10A	240W	1SVR427035R0000
115 / 230 V AC	24 V DC	20A	480W	1SVR427036R0000
115 / 230 V AC	48 V DC	10A	480W	1SVR427035R2000
Three-phase CP-T				
3x 400 - 500 V AC	24 V DC	5A	120W	1SVR427054R0000
3x 400 - 500 V AC	24 V DC	10A	240W	1SVR427055R0000
3x 400 - 500 V AC	24 V DC	20A	480W	1SVR427056R0000

See [catalog](#) for full description

Measuring and monitoring relays

Inventory



Function	Supply voltage	Measuring range	Output	Ordering code
Single-phase monitoring - CM-E and CM-S				
Single function voltage*	24 - 240 V AC/DC	0.3-15 A	2 c/o	1SVR730760R0500
Single function voltage*	24 - 240 V AC/DC	0.3-15A RMS	2 c/o	1SVR730840R0500
Single function voltage*	24 - 240 V AC/DC	3 - 600 V	2 c/o	1SVR730750R0400
Single function voltage*	24 - 240 V AC/DC	3 - 600 V	2 c/o	1SVR730830R0400
Single function voltage*	24 - 240 V AC/DC	3 - 600 V	2 c/o	1SVR730830R0500
Single function voltage*	110 - 130 V AC	0.3-15A	1 c/o	1SVR730840R0300
Single function voltage*	110 - 130 V AC	0.3-15A RMS	2 c/o	1SVR730841R0500
Single function voltage*	110 - 130 V AC	3-600VRMS	2 c/o	1SVR740831R0400
Single function voltage*	110 - 130 V AC	3mA-1A RMS	1 c/o	1SVR730841R0200
Multifunctional*	24 - 240 V AC/DC	0.3-15A RMS	2 c/o	1SVR730840R0700
Three-phase monitoring CM-M and CP-P				
Multifunctional*	(L-N) 90 - 170 V AC	(L-N) 90 - 170 V AC	2 c/o	1SVR730885R1300
Multifunctional*	(L-L) 160 - 300 V AC	(L-L) 160 - 300 V AC	2 c/o	1SVR730884R1300
Multifunctional*	(L-L) 160 - 300 V AC	(L-L) 160 - 300 V AC	2 c/o	1SVR740774R1300
Multifunctional*	(L-L) 160 - 300 V AC	(L-L) 160 - 300 V AC	2 c/o	1SVR730794R1300
Multifunctional*	(L-L) 300 - 500 V AC	(L-L) 300 - 500 V AC	2 c/o	1SVR730884R3300
Multifunctional*	(L-L) 300 - 500 V AC	(L-L) 300 - 500 V AC	2 c/o	1SVR730774R3300
Multifunctional*	(L-L) 300 - 500 V AC	(L-L) 300 - 500 V AC	2 c/o	1SVR730794R3300
Multifunctional*	(L-L) 350 ... 580 V AC	(L-L) 350 ... 580 V AC	2 x 1 or 1 x 2 c/o	1SVR750487R8300
Multifunctional*	(L-L) 450 ... 720 V AC	(L-L) 450 ... 720 V AC	2 x 1 or 1 x 2 c/o	1SVR750488R8300
Phase sequence*	(L-L) 200 ... 500 V AC	(L-L) 200 ... 500 V AC	2 c/o	1SVR730824R9300
Phase sequence*	(L-L) 208 - 440 V AC	(L-L) 208 - 440 V AC	1 c/o	1SVR550824R9100
Current transformer CM-CT				
Current transformer*	---	75 A	---	1SVR450116R5100
DIN Snap-on fastener for CM-CT*	---	---	---	1SVR450118R1000

*See [catalog](#) for full description

Measuring and monitoring relays

Inventory



Function	Supply voltage	Measuring range	Output	Ordering code
Liquid level monitoring - CM-EN				
Liquid level*	24 - 240 V AC/DC	0.1-1000kOhm	2 c/o	1SVR730850R0300
Liquid level*	110-130VAC/220-240VAC	5-100kOhm	1 c/o	1SVR730850R2100
Liquid level*	110-130VAC/220-240VAC	0.1-1000kOhm	1 c/o	1SVR730850R2200
Temperature monitoring - CM-TC				
Temperature*	24 - 240 V AC/DC	---	2 x 1 or 1 x 2 c/o	1SVR730740R0300
Thermistor motor protection - CM-MS				
Thermistor motor*	110-130 V AC	1 sensor circuit	1 n/o	1SVR550800R9300
Thermistor motor*	24 V AC/DC	---	1 c/o	1SVR730700R0100
Thermistor motor*	24 - 240 V AC/DC	---	2 x 1 c/o	1SVR730712R1300
Thermistor motor*	24 - 240 V AC/DC	---	1 c/o + 1 n/o	1SVR730712R1400
Thermistor motor*	110-130VAC/220-240VAC	---	2 c/o	1SVR730712R2200
Thermistor motor*	24 - 240 V AC/DC	---	1 c/o + 1 n/o	1SVR730720R1400
Insulation monitoring CM-I				
Insulation*	24 - 240 V AC/DC	1 - 100 kΩ	1 c/o	1SVR730660R0100
Insulation*	0-690V AC / 0-1000V DC	1-100 kΩ 2-200 kΩ	1 x 2 c/o or 2 x 1 c/o	1SVR470670R1000

*See [catalog](#) for full description

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14

Disconnect switches

Section 14

Disconnect switches

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Enclosed disconnect switches

UL508 and UL98

UL508 non-fusible manual disconnect switches Max voltage (AC): 600Vac



UL amp rating	Enclosure material	NEMA Type	Handle	Handle color	Aux contacts	Ordering Code	HP Rating
16	Plastic	3R/12	Selector	Black	-	EOT520N3PAP-SBA	5 HP / 240VAC, 10 HP / 480VAC, 10 HP / 600VAC
				Red/Yellow	-	EOT520N3PAP-SRA	5 HP / 240VAC, 10 HP / 480VAC, 10 HP / 600VAC
		4/4X	Pistol	Black	-	EOT520N3PAP-PBA	5 HP / 240VAC, 10 HP / 480VAC, 10 HP / 600VAC
				Black	1 NO	EOT520N3PAP-PB1	5 HP / 240VAC, 10 HP / 480VAC, 10 HP / 600VAC
	Steel	3R/12	Selector	Black	-	EOT520N3PA3-SBA	-
				Black	-	EOT520N3PA3-PBA	-
		4/4X	Pistol	Black	-	EOT520N3PAX-SBA	-
				Black	-	EOT520N3PAX-PBA	-
40	Plastic	3R/12	Selector	Black	-	EOT540N3PAP-SBA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
				Red/Yellow	-	EOT540N3PAP-SRA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
			Pistol	Black	-	EOT540N3PAP-PBA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
		4/4X	Pistol	Black	1 NO	EOT540N3PAP-PB1	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
				Black	1 NO & 1 NC	EOT540N3PAP-PB1	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
			Pistol	Red/Yellow	-	EOT540N3PAP-PRA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	Steel	3R/12	Selector	Black	-	EOT540N3PA3-SBA	-
				Black	-	EOT540N3PA3-PBA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
			Selector	Black	-	EOT540N3PA3-SBA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
		4/4X	Pistol	Black	-	EOT540N3PAX-PBA	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
				Black	-	EOT560N3PAP-PBA	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
				Black	-	EOT560N3PA3-SBA	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
60	Steel	3R/12	Pistol	Black	-	EOT560N3PA3-PBA	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
				Black	-	EOT560N3PAX-PBA	-
		4/4X	Pistol	Black	-	EOT560N3PAX-PBA	-
	Stainless Steel	4/4X	Pistol	Black	-	EOT580N3PAP-PBA	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
				Black	-	EOT580N3PA3-PBA	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
				Black	-	EOT580N3PA3-PBA	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC



UL98 non-fusible disconnect switches Max voltage (AC): 600Vac

UL amp rating	Enclosure material	NEMA Type	Handle	Handle color	Aux contacts	Ordering Code	HP Rating
30	Steel	1	Pistol	Black	-	EOT30U3M1-P	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
			Pistol	Red/Yellow	-	NF301-3PY6C	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
		12/3R	Pistol	Black	-	EOT30U3M3-P	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
			Pistol	Red/Yellow	-	NF303-3PY6C	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
60	Steel	1	Pistol	Black	-	EOT60U3M1-P	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
			Pistol	Red/Yellow	-	NF601-3PY6C	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
		12/3R	Pistol	Black	-	EOT60U3M3-P	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
				Black	-	EOT60U3S4-P	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
100	Steel	12/3R	Pistol	Black	-	EOT100U3M1-P	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC
				Black	-	EOT100U3M3-P	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC
		4/4X	Pistol	Black	-	EOT100U3S4-P	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC



Enclosed disconnect switches

UL508 and UL98

UL98 fusible disconnect switches
Max voltage (AC): 600Vac

UL amp rating	Enclosure material	NEMA Type	Fuse Type	Handle	Handle color	Ordering Code	HP Rating
30	Steel	1	J	Pistol	Red/Yellow	FJ301-3PY6B	-
		3R/12	J	Pistol	Black	FJ303-3PB6B	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
			CC	Pistol	Black	FC303-3PB6B	-
60	Steel	1	J	Pistol	Black	FJ601-3PB6B	15 HP / 240VAC, 30 HP / 480VAC, 50 HP / 600VAC

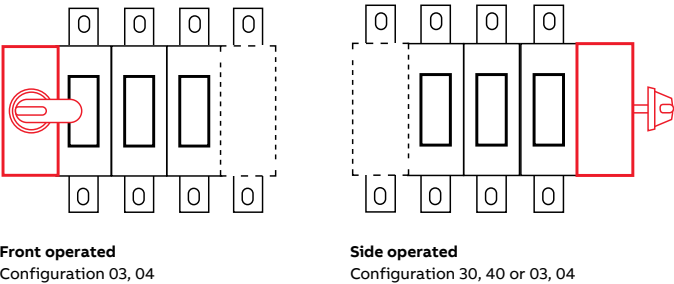
Non-fusible disconnect switches OT16...160

Ordering code construction

Understanding the type code keys below will help you quickly identify the correct product for your needs.

OT16F4N2				
ABB Brand OT = ABB switch-disconnector brand				
Switch size The second letter in the code indicates the ampere rating [A] of the product: 16...160A				
Operation/Mounting/Certification F = Base and DIN-rail mounting, front operated FT = Door mounting, front operated G = Base and DIN-rail mounting, front and side operated GT = Door mounting, front and side operated FL = Base and DIN-rail mounting, extended terminals on both sides of the switch, front operated FLA = Base and DIN-rail mounting, extended terminals on top side only, front operated FLB = Base and DIN-rail mounting, extended terminals on bottom side only, front operated M, ML = Installation switches for 45mm standard opening, base and DIN-rail mounting, front operated		Included accessories N2 = Fourth pole, simultaneous function with the main contacts _ = No accessories included P = Pistol handle + shaft K = Direct mount handle (for base mounting versions only)		
		Number of poles and placing of the operating mechanism 3 = 3 poles 4 = 4 poles 6 = 6 poles 8 = 8 poles 03 = 3 poles, operating mechanism at the left end of the switch 04 = 4 poles, operating mechanism at the left end of the switch 30 = 3 poles, operating mechanism at the right end of the switch 40 = 4 poles, operating mechanism at the right end of the switch		

Pole configuration table, OT160G



Non-fusible disconnect switches OT200-2000

Ordering code construction

Understanding the type code keys below will help you quickly identify the correct product for your needs.

OT

400

U

03

W

P

ABB Brand

OT = Non-fusible disconnect switches

Switch size

The second letter in the code indicates the ampere rating [A] of the product: 160...4000A

Operation/Mounting/Certification

U = Front operated, base mounting, UL/CSA

Construction 2

K = With direct mount handle

P = External handle and metal shaft included

Construction 1

W = With wide phase distance

Number of poles and placing of the operating mechanism

03 = 3-poles, operating mechanism at the left end of the switch

04 = 4-poles, operating mechanism at the left end of the switch

12 = 3-poles, operating mechanism between the poles

22 = 4-poles, operating mechanism between the poles

30 = 3-poles, operating mechanism at the right end of the switch

40 = 4-poles, operating mechanism at the right end of the switch

Pole configuration table

The various placing options of the operating mechanism in relation to the 3 or 4 poles is illustrated below. The operating mechanism may be placed at the end of the switch or between poles.

Front operated
Configuration 03, 04

Front operated
Configuration 12, 22

Front operated
Configuration 30, 40

Side operated
Configuration 03, 04

Reference only. For stocked items, see following pages.

Non-fusible disconnect switches

UL508 and UL98

For a complete assembly, please select one of each:

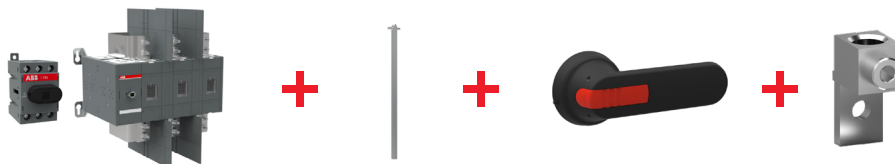
1 disconnect (page 14.5)

1 handle (page 14.12 , 14-13)

1 shaft (page 14.14)

1 terminal lug kit (page 14.16)

NOTE: For additional accessories, [see the buylog](#).
(Lug kits only necessary on switches 200A and above)



UL listing	UL general purpose amp rating	3 Pole ordering code	6 Pole ordering code	HP Rating
Base & DIN-rail mounted Max voltage (AC): 600Vac				
UL 508	20	OT16F3	---	5 HP / 240VAC, 10HP / 480VAC, 10 HP / 600VAC
	30	OT25F3	OT25F6	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
	30	OT25F3/B50*	---	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
	40	OT40F3	OT40F6	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	40	OT40F3/B50*	---	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	60	OT63F3	OT63F6	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
	60	OT63F3/B50*	---	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
	80	OT80F3	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	80	OT80F3/B50*	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
UL 98	30	OT30F3	---	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	60	OT60F3	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	60	OT60F3/B25**	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	100	OT100F3	OT100F6	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC
	100	OT100F3/B25**	---	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC
	100 ¹	OT160G03	---	-
	200	OT200U03	---	75 HP / 240VAC, 150 HP / 480VAC, 200 HP / 600VAC
	400	OT400U03	---	125 HP / 240VAC, 250 HP / 480VAC, 350 HP / 600VAC
	600	OT600U03	---	200 HP / 240VAC, 450 HP / 480VAC, 500 HP / 600VAC
	800	OT800U03	---	250 HP / 240VAC, 500 HP / 480VAC, 500 HP / 600VAC
	1200	OT1200U03	---	-
Door mounted				
UL508	20	OT16FT3	---	5 HP / 240VAC, 10HP / 480VAC, 10 HP / 600VAC
	30	OT25FT3	---	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
	40	OT40FT3	---	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	60	OT63FT3	---	15 HP / 240VAC, 30 HP / 480VAC, 50 HP / 600VAC
	80	OT80FT3	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
UL98	30	OT30FT3	---	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
	60	OT60FT3	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	100	OT100FT3	---	30 HP / 240VAC, 50 HP / 480 VAC, 50 HP / 600VAC

Table continues on next page.

Non-fusible disconnect switches

UL508 and UL98



UL listing	UL general purpose amp rating	3 Pole ordering code	6 Pole ordering code	HP Rating
Base & DIN-rail mounted Max voltage (AC): 600Vac				
Non-fusible double throw				
UL508	40	OT40F3C	---	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	60	OT63F3C	---	15 HP / 240VAC, 30 HP / 480VAC, 30 HP / 600VAC
	80	OT80F3C	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
UL98	30	OT30F3C	---	10 HP / 240VAC, 20 HP / 480VAC, 30 HP / 600VAC
	60	OT60F3C	---	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	100	OT100F3C	---	30 HP / 240VAC, 50 HP / 480VAC, 50 HP / 600VAC
	200	OT200U30C	---	75 HP / 240VAC, 150 HP / 480VAC, 200 HP / 600VAC
	400	OT400U30C	---	125 HP / 240VAC, 250 HP / 480VAC, 350 HP / 600VAC
	600	OT600U30C	---	200 HP / 240VAC, 450 HP / 480VAC, 500 HP / 600VAC
	800	OT800U30C	---	250 HP / 240VAC, 500 HP / 480VAC, 500 HP / 600VAC

¹ UL listed to 100A, UL recognized to 125A

* Bulk Pack of 50 Pcs

** Bulk Pack of 25 Pcs



OTDC DC disconnect switches

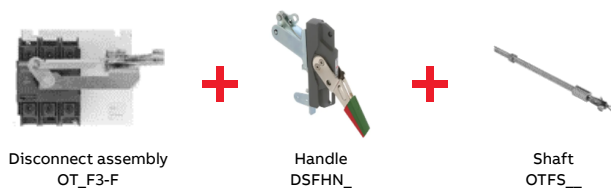
UL listing	UL general purpose amp rating 1500Vdc	2 pole ordering code
UL 98B	400	OTDC400UFV11

Non-fusible disconnect switches

Flange handle operated switches

For a complete shaft operated flange assembly,
please select one of each:
1 disconnect (page 14.7)
1 handle (page 14.14)
1 shaft (page 14.14)

NOTE: For additional accessories, [see the buylog](#).



For a complete cable operated flange assembly, please select one of each:
1 disconnect (page 14.7)
1 handle (page 14.14)
1 mechanism (page 14.14)
1 cable (page 14.15)
1 terminal lug kit (page 14.16)

NOTE: For additional accessories, [see the buylog](#).
(Lug kits only necessary on switches 200A and above)



Flange handle shaft operated non-fusible disconnect Max voltage (AC): 600Vac



UL listing	UL general purpose amp rating	Ordering Code	HP Rating
UL98	30	OT30F3-F	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC

Flange handle cable operated non-fusible disconnect Max voltage (AC): 600Vac

UL listing	UL general purpose amp rating	Ordering Code	HP Rating
UL98	30	OT30F3	10 HP / 240VAC, 20 HP / 480VAC, 25 HP / 600VAC
	60	OT60F3	20 HP / 240VAC, 40 HP / 480VAC, 40 HP / 600VAC
	100	OT100F3	30 HP / 240VAC, 50 HP / 480VAC, 50 HP / 600VAC
	200	OT200U30	75 HP / 240VAC, 150 HP / 480VAC, 200 HP / 600VAC
	400	OT400U30-FC	125 HP / 240VAC, 250 HP / 480VAC, 350 HP / 600VAC
	600	OT600U30-FC	200 HP / 240VAC, 450 HP / 480VAC, 500 HP / 600VAC
	800	OT800U30-FC	250 HP / 240VAC, 500 HP / 480VAC, 500 HP / 600VAC
	1200	OT1200U30-FC	-

Note: For flange handle and cables selection please check pages [14-14](#) and [14-15](#).

Fusible disconnect switches OS30

Ordering code construction

Type codes

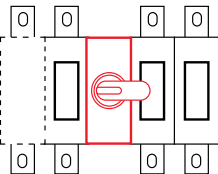
Understanding the type code keys below will help you quickly identify the correct product for your needs. The simple naming system allows you to see the products type, Ampere rating, standard classification and number of poles, all in one glance.

OS		30F		AJ		-		22		-		F		-	
ABB Brand OS = ABB switch fuse/fusible switch				Included handle Blank = No handle included											
Switch size The second part in the code indicates the ampere rating [A] of the product: 30A followed by the generation letter: F				Fourth pole/neutral terminal F = Fused switched neutral Blank = Terminal not included											
Fuse type AJ = J ACC = CC				Fuse size Blank = Fuses not included											
Switch operation Blank = Front operation S = Side operation															
Number of poles and placing of the operating mechanism															
12 = 3 poles, operating mechanism between the poles															
22 = 4 poles, operating mechanism between the poles															
30 = 3 poles, operating mechanism at the right end of the switch															

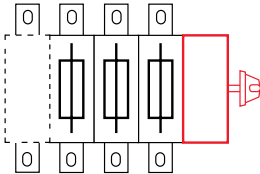
Pole configuration table

The various placing options of the operating mechanism in relation to the 3 or 4 poles is illustrated below. The operating mechanism may be placed at the end of the switch or between poles.

Between the poles OS_12 or 22:



Side operated types OS_30 or 40 / OS_03 or 04:



Fusible disconnect switches OS60...1200

Ordering code construction

Type codes

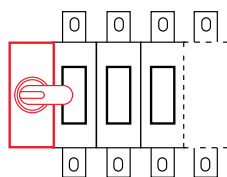
Understanding the type code keys below will help you quickly identify the correct product for your needs. The simple naming system allows you to see the products type, Ampere rating, standard classification and number of poles, all in one glance.

OS		100G		J		-		04		N1		-		-	
ABB Brand OS = ABB switch fuse/fusible switch				Included handle Blank = No handle included											
Switch size The second part in the code indicates the ampere rating [A] of the product: 60...1200A possibly followed by generation letter: G				Terminals for special connection (only IEC) Blank = No special connection											
Fuse type J = J L = L				Fourth pole/neutral terminal Blank = Neutral terminal not included N1 = Non-fused switched neutral on the left side F = Fused switched neutral											
Switch operation Blank = Front operation S = Side operation															
Number of poles and placing of the operating mechanism 03 = 3 poles, operating mechanism at the left end of the switch 04 = 4 poles, operating mechanism between the poles 12 = 3 poles, operating mechanism between the poles 22 = 4 poles, operating mechanism between the poles 30 = 3 poles, operating mechanism at the right end of the switch 40 = 4 poles, operating mechanism at the right end of the switch															

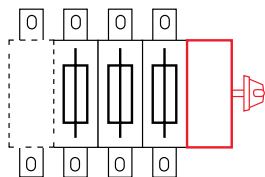
Pole configuration table

The various placing options of the operating mechanism in relation to the 3 or 4 poles is illustrated below. The operating mechanism may be placed at the end of the switch or between poles.

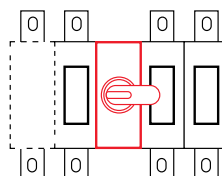
At the end of the switch fuse OS_03 or 04:



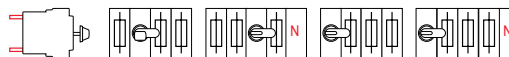
Side operated types OS_30 or 40 / OS_03 or 04:



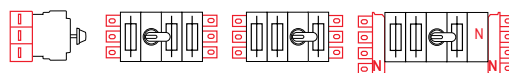
Between the poles OS_12 or 22:



BB-types:



LR-types:



Reference only. For stocked items, see following pages.

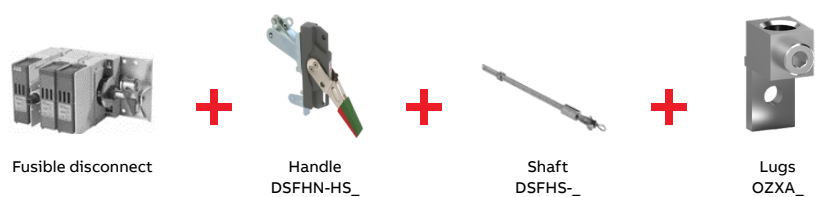
Fusible disconnect switches

UL98 flange handle operated switches

For a complete shaft operated flange assembly, please select one of each:

- 1 disconnect (page 14.10)
- 1 handle (page 14.15)
- 1 shaft (page 14.14)
- 1 terminal lug kit (page 14.16)

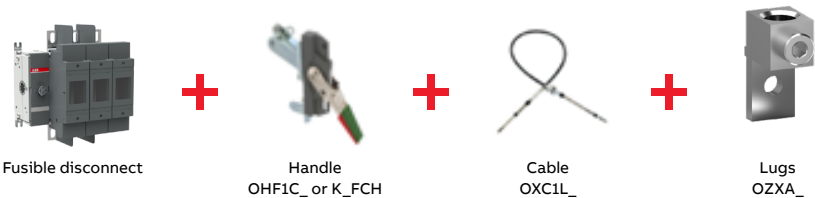
Note: For additional accessories, [see the buylog](#).
(Lug kits only necessary on switches 100A and above)



For a complete cable operated flange assembly, please select one of each:

- 1 disconnect (page 14.10)
- 1 handle (page 14.15)
- 1 cable (page 14.15)
- 1 terminal lug kit (page 14.16)

Note: For additional accessories, [see the buylog](#).
(Lug kits only necessary on switches 100A and above)



Flange handle shaft operated fusible disconnect

Max voltage 600 (AC): 600Vac



UL listing	UL general purpose amp rating	UL Fuse Type	Ordering Code	HP Rating
UL98	30	J	OS30FAJF30	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC

Flange handle cable operated fusible disconnect

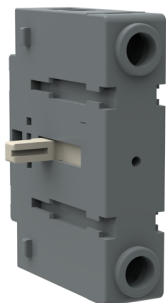
Max voltage 600 (AC): 600Vac

UL listing	UL general purpose amp rating	UL Fuse Type	Ordering Code	HP Rating
UL98	30	CC	OS30FACC12	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
	30	J	OS30FAJ12	7.5 HP / 240VAC, 15 HP / 480VAC, 20 HP / 600VAC
	60	J	OS60GJ12*	15 HP / 240VAC, 30 HP / 480VAC, 50 HP / 600VAC
	60	J	OS60GJ30	15 HP / 240VAC, 30 HP / 480VAC, 50 HP / 600VAC
	100	J	OS100GJ30	30 HP / 240VAC, 60 HP / 480VAC, 75 HP / 600VAC
	200	J	OS200J30	60 HP / 240VAC, 125 HP / 480VAC, 150 HP / 600VAC
	400	J	OS400J30-FC	125 HP / 240VAC, 250 HP / 480VAC, 350 HP / 600VAC
	600	J	OS600J30-FC	200 HP / 240VAC, 400 HP / 480VAC, 500 HP / 600VAC
	800	L	OS800L30-FC	250 HP / 240VAC, 500 HP / 480VAC, 500 HP / 600VAC

Note: For flange handle and cables selection please check pages [14-14](#) and [14-15](#).
* Operated,12 (Between the Poles)

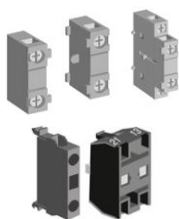
Fusible and non-fusible disconnect switches

Accessories



1 - Additional poles for non-fusible

Description	For use on	AC Thermal amp rating	Mounting location	Panel or door mount	Ordering Code
Power poles - Fourth Pole simultaneous function with the main contacts					
	OT16-OT25, OT40	40	Left	Panel	OTPS40FPN1
	OT16-OT25, OT40	40	Right	Panel	OTPS40FPN2
	OT16-OT25, OT40	40	Left	Door	OTPS40FDN1
	OT16-OT25, OT40	40	Right	Door	OTPS40FDN2
	OT30, OT60	60		Panel	OTPS60FP
	OT30, OT60	60		Door	OTPS60FD
	OT63-OT80	80		Panel	OTPS80FP
	OT100	100		Panel	OTPS125FP
	OT100	100		Door	OTPS125FD
Terminal poles					
Solid Neutral	OT16-OT25, OT40	40		Panel	OTPN40FP
	OT30, OT60	60		Panel	OTPN60FP
	OT63-OT80	80		Panel	OTPN80FP
	OT100	100		Panel	OTPN125FP
Detachable Neutral	OT16-OT25, OT40	40		Panel	OTPE40FP
Ground Terminal	OT16-OT25, OT40	40		Door	OTPE40FD
	OT63-OT80	80		Door	OTPE80FD



2 - Auxiliary contacts Vdc/Vac

Description	For use on	AC Thermal amp rating	Ordering Code
Snap-on mounting			
1 N.O.	OS30-1200, OT16-1200, OT16-800_C	10	OA1G10
1 N.C.	OT16-160	10	OA1G01
1 N.C.	OS30-1200, OT200-2000	10	OA3G01
1 N.O. & 1 N.C.	OT16-100	10	OA2G11
1 N.O. & 1 N.C.	OS30	6	OA4B1C
Snap-on mounting for double throw			
1 N.O.	OT16-800_C	10	OA1G10
1 N.O.	OT16-100_C	10	OA7G10
1 N.C.	OT16-100_C	10	OA1G01
1 N.C.	OT200-800_C	10	OA3G01
1 N.O. & 1 N.C.	OT16-100_C	10	OA2G11
Accessories			
Auxiliary contact frame (for OA1G10 and OA3G01)	OS30		OSZ4
Auxiliary contact mounting module (for OA1G10 and OA3G01)	OS200, OT200-400		OEA28

Fusible and non-fusible disconnect switches

Accessories for rotary operated switches

3 - Handles



For use on	NEMA Type	IP Rating	Shaft diameter in (mm)	Color	Marking	Ordering Code
Selector handles						
OT16...125F	1	IP54	0.24 (6)	Black	O/I & Off/On	OHBS3AH1
OT16...125F	1	IP54	0.24 (6)	Red/Yellow	O/I & Off/On	OHYS3AH1
OT16...80F	1	IP54	0.24 (6)	Black	O/I & Off/On	OHBS1AH1
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	OHBS2AJ1
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Red/Yellow	O/I & Off/On	OHYS2AJ1
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	OHBS2AJ ¹
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Red/Yellow	O/I & Off/On	OHYS2AJ ²
Selector handles with metal hasp						
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	OHBS2AJ1EH
Pistol handles						
						Length (mm)
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	1.8 (45) OHB45J6
OT200	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	2.6 (65) OHB65J6
OT200	1, 3R, 12	IP65	0.24 (6)	Black	O/I & Off/On	3.1 (80) OHB80J6
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Red/Yellow	O/I & Off/On	1.8 (45) OHY45J6
OT200	1, 3R, 12	IP65	0.24 (6)	Red/Yellow	O/I & Off/On	2.6 (65) OHY65J6
OT200	1, 3R, 12	IP65	0.24 (6)	Red/Yellow	O/I & Off/On	3.1 (80) OHY80J6
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Grey	O/I	1.8 (45) OHG45J6
OT200	1, 3R, 12	IP65	0.24 (6)	Grey	O/I	2.6 (65) OHG65J6
OT200	1, 3R, 12	IP65	0.24 (6)	Grey	O/I	3.1 (80) OHG80J6
OT16...125F	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Black	O/I & Off/On	1.8 (45) OHB45L6
OT200	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Black	O/I & Off/On	2.6 (65) OHB65L6
OT200	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Black	O/I & Off/On	3.1 (80) OHB80L6
OT16...125F	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Red/Yellow	O/I & Off/On	1.8 (45) OHY45L6
OT200	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Red/Yellow	O/I & Off/On	2.6 (65) OHY65L6
OT200	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Red/Yellow	O/I & Off/On	3.1 (80) OHY80L6
OT200...2000A and OS30...1200A	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Stainless Steel	O/I & Off/On	2.6 (65) OHM65L6
OT400U_ And OTDC400	1, 3R, 12	IP65	0.47 (12)	Black	O/I & Off/On	3.7 (95) OHB95J12
OT600U_ And OTDC400	1, 3R, 12	IP65	0.47 (12)	Black	O/I & Off/On	4.9 (125) OHB125J12
OT600U_ And OS630...800	1, 3R, 12	IP65	0.47 (12)	Black	O/I & Off/On	5.7 (145) OHB145J12
OT800...1200U and OS1200	1, 3R, 12	IP65	0.47 (12)	Black T-Handle	O/I & Off/On	2X 5.9 (150) OHB150J12P
OS630...800	1, 3R, 12	IP65	0.47 (12)	Black	O/I & Off/On	6.9 (175) OHB175J12
OT800...1200U and OS1200	1, 3R, 12	IP65	0.47 (12)	Black T-Handle	O/I & Off/On	2X 7.9 (200) OHB200J12P
OT800...2000U_	1, 3R, 12	IP65	0.47 (12)	Black	O/I & Off/On	10.8(274) OHB274J12
OT600U_ And OS630...800	1, 3R, 12	IP65	0.47 (12)	Red/Yellow	O/I & Off/On	4.9 (125) OHY125J12
OT600U_ And OS630...800	1, 3R, 12	IP65	0.47 (12)	Red/Yellow	O/I & Off/On	5.7 (145) OHY145J12
OS630...800	1, 3R, 12	IP65	0.47 (12)	Red/Yellow	O/I & Off/On	6.9 (175) OHY175J12
OT800...1200U and OS1200	1, 3R, 12	IP65	0.47 (12)	Red/Yellow	O/I & Off/On	10.8 (274) OHY274J12
OT600U_ And OS630...800	1, 3R, 12	IP65	0.24 (6)	Grey	O/I	5.7 (145) OHG145J12
OT600U_ And OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Black	O/I & Off/On	4.9 (125) OHB125L12
OT600U_ And OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Black	O/I & Off/On	5.7 (145) OHB145L12
OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Black	O/I & Off/On	6.9 (175) OHB175L12
OT800...1200U and OS1200	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Black	O/I & Off/On	10.8(274) OHB274L12
OT600U_800 And OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Red/Yellow	O/I & Off/On	5.7 (145) OHY145L12
OT600U_800 And OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Red/Yellow	O/I & Off/On	6.9 (175) OHY175L12
OT600U_800 And OS630...800	1, 3R, 12, 4, 4X	IP66	0.47 (12)	Stainless Steel	O/I & Off/On	6.9 (175) OHM175L12



Fusible and non-fusible disconnect switches

Accessories for rotary operated switches

3 - Handles (continued)



Direct mount handle

For use on	Color	Shaft	Ordering Code
OT16-OT25, OT40	Black	Yes	OHBS12
OT30, OT60, OT100	Black	No	OHBS2
OS30	Black	Yes	OHBS5
OS60-OS100	Black	No	OHBS4
OS200	Black	No	OSV200BK
OT200	Black	No	OTV250EK
OS400	Black	No	OSV400BK
OT400	Black	No	OTV400EK

Selector handles for door mounted switches



Direct mount handle

NEMA Type	IP rating	Color	Ordering Code
Snap-on mounting - for use on OT16FT3 - OT40FT3			
1	IP54	Black	OHBS3PH
1	IP54	Red/Yellow	OHYS3PH
1, 3R, 12	IP65	Black	OHBS2PJ
1, 3R, 12	IP65	Red/Yellow	OHYS2PJ
Screw mounting - for use on OT16FT3 - OT100FT3. For OT30, OT60, and OT100 use OH__2__only			
1	IP54	Black	OHBS1RH
1	IP54	Black	OHBS3RH
1	IP54	Red/Yellow	OHYS3RH
1, 3R, 12	IP65	Black	OHBS2RJ
1, 3R, 12	IP65	Red/Yellow	OHYS2RJ

3 Position for double throw switches



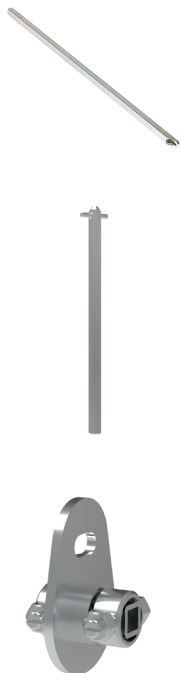
For use on	NEMA Type	IP Rating	Shaft diameter in (mm)	Color	Marking	Handle Length in (mm)	Order Code
Selector handles							
OT16...125F	1, 3R, 12	IP65	0.24 (6)	Black	I/O/II, ON/OFF/ON		OHBS2AJE011
Pistol handles							
OT16...160	1, 3R, 12	IP65	0.24 (6)	Black	I/O/II, ON/OFF/ON	2.6 (65)	OHBS2AJE011
OT16...160	1, 3R, 12	IP65	0.24 (6)	Black	I/O/II, ON/OFF/ON	3.1 (80)	OHBS2AJE011
OT630-800	1, 3R, 12	IP65	0.47 (12)	Black	I/O/II, ON/OFF/ON	5.7 (145)	OHBS2AJE011
OT160-250	1, 3R, 12, 4, 4X	IP66	0.24 (6)	Black	I/O/II, ON/OFF/ON	2.6 (65)	OHBS2AJE011

¹ The difference between OHBS2AJ and OHBS2AJ1 is that OHBS2AJ is defeatable.

² The difference between OHYS2AJ and OHYS2AJ1 is that OHYS2AJ is defeatable.

Fusible and non-fusible disconnect switches

Accessories for rotary operated switches



4 - Shafts

Shaft length in (mm)	Ordering Code
Shafts for selector handles - with diameter 0.24 (6)	
2.2 (57)	OXS6X57
3.3 (85)	OXS6X85
3.7 (95)	OXS6X95
4.1 (105)	OXS6X105
4.7 (120)	OXS6X120
5.1 (130)	OXS6X130
5.9 (150)	OXS6X150
7.1 (180)	OXS6X180
9.8 (250)	OXS6X250
13 (330)	OXS6X330

Description	Ordering Code
Shaft and handle accessories	
6mm shaft coupler	OESA-ZX167
Shaft support	OETL-ZX58
Shaft Coupler 12mm	OETL-ZX95
Shaft Guide	OHZX10
Adapter	OHZX6
Din Rail Adapter	OSGZD1

Shaft length in (mm)	Ordering Code
Shafts for pistol handles - with diameter 0.24 (6)	
2.2 (57)	EXP6X57
3.4 (87)	EXP6X87
5.2 (130)	EXP6X130
5.9 (150)	EXP6X150
6.2 (158)	EXP6X158
6.7 (170)	EXP6X170
6.9 (175)	EXP6X175
7.1 (181)	EXP6X181
8.3 (210)	EXP6X210
10.4 (265)	EXP6X265
11.4 (290)	EXP6X290
14.2 (360)	EXP6X360
15.8 (400)	EXP6X400
16.9 (430)	EXP6X430
19.7 (500)	EXP6X500
27.6 (700)	EXP6X700
Shafts for pistol handles - with diameter 0.47 (12)	
7.3 (185)	EXP12X185
9.8 (250)	EXP12X250
11.0 (280)	EXP12X280
12.8 (325)	EXP12X325
15.6 (395)	EXP12X395
18.3 (465)	EXP12X465
21.1 (535)	EXP12X535
24.6 (625)	EXP12X625

5 - Flange handles

Flange handle, shaft operated for fusible and non-fusible disconnect switches		
NEMA type	Marking	Ordering Code
1, 3R, 12	OFF/ON	DSFHN-HS12

Flange handle shafts		
For use with:	Maximum enclosure depth	Ordering Code
OS30_ - OS100_	16"	DSFHS-12
OT30F3-F	16"	OTFS-16

Flange handle cable operating mechanism	
For use with:	Ordering Code
OT30...100F3	MKCS1
OS30AFJ12, OS30AAFCC12	MKCS2
OS60GJ12	MKCS3
OS60...100GJ30, OS200J30, OT200U30	MKCS4

Table continues on next page.

Fusible and non-fusible disconnect switches

Accessories



5 - Flange handles (continued)

Flange handle, cable operated

For use with:	NEMA Type	Ordering Code
OS30FA_12, OS60...100GJ30, OS200J30	1, 3R, 12	OHF1C12
OT30...100F3, OT200U30	4, 4X	OHF1C4
OS400J30-FC, OT400...600U30-FC	1, 3R, 12	K7FCH
	4, 4X	K7FCH4
OS600J30-FC	1, 3R, 12	K8FCH
	4, 4X	K8FCH4
OS800...1200L30-FC, OT800...1200U30-FC	1, 3R, 12	K9FCH
	4, 4X	K9FCH4



6 - Cables for flange handle disconnect switches

For use with:	Ordering Code		
	36 in	48 in	60 in
OS30FA_12, OS60...100GJ30, OS200J30, OT30...100F3, OT200U30	OXC1L36	OXC1L48	OXC1L60
OS400...600J30-FC, OT400...600U30-FC	-	K7C048	K7C060
OS800...1200L30-FC, OT800...1200U30-FC	-	K8C048	K8C060



OTS40T3

7 - Terminal shrouds

Description	For Use On	Ordering Code
For non-fusible		
(1) 3 pole for use on line or load side	OT16-OT25, OT40	OTS40T3
	OT63-80	OTS63T3
	OT30, OT60, OT100	OTS125T3
(1) 4th pole for use on line or load side	OT16-OT25, OT40	OTS40T1
	OT63-80	OTS63T1
(3) 1 pole long type	OT200	OTS250G1L/3
(3) 1 pole short type	OT200	OTS250G1S/3
(1) 3 pole for use on line or load side	OT400	OTS403
	OT400U30-FC	OTS403-FC
(3) 1 pole long type	OT400	OTS400G1L/3
(3) 1 pole short type	OT400	OTS400G1S/3
(1) 3 pole for use on line or load side	OT600	OTS603
	OT600U30-FC	OTS603-FC
	OT800U30-FC	OTS803-FC
	OT1200U30-FC	OTS1203-FC
For non-fusible		
(3) 1 pole long type	OS100	OSS160GG1L/3
(3) 1 pole short type	OS100	OSS160GG1S/3
(3) 1 pole long type	OS200	OSS200G1L/3
(3) 1 pole short type	OS200	OSS200G1S/3
(3) 1 pole long type	OS400	OSS400G1L/3
(1) 3 pole for use on line or load side	OS400	OSS403
	OS400J30-FC	OSS403-FC



OSS160GG1L/3

Table continues on next page.

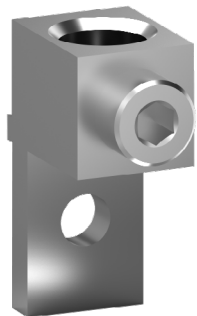
Fusible and non-fusible disconnect switches

Accessories



7 - Terminal shrouds

Description	For Use On	Ordering Code
For non-fusible		
(1) 3 pole for use on line or load side	OS600	OSS603
	OS600J30-FC	OSS603-FC
(3) 1 pole long type	OS800	OSS800G1L/3
(1) 3 pole for use on line or load side	OS800L30-FC	OSS803-FC
	OS1200L30-FC	OSS1203-FC



8 - Terminal lug kits

For Use On	Wire Size	Wire Type	Lugs/Kit	Ordering Code
OS100	#14-2/0	Cu/Al	6	OZXA-24
OT200, OS200	#4 - 300 kcmil	Cu/Al	6	OZXA-200
OT400, OS400	#2 - 600 kcmil	Cu/Al	6	OZXA-400
	(2) #4 - 300 kcmil	Cu/Al	6	OZXA-402
	(6) #14 - 6 AWG	Cu/Al	3	OZXA-406
OT600...800, OS600...800	(2) #2 - 600 kcmil	Cu/Al	6	OZXA-800
OS1200, OT800...2000	(4) #2 - 600 kcmil	Cu/Al	6	OZXA-1200



9 - Other accessories

Description	Ordering Code
Bridge bars OT200U_C	OTZC13
Bridge bars OT400U_C	OTZC23
Bridge bars for OT600U_C	OTZC33
Bridge bars for OT800U_C	OTZC53
Module for auxiliaries or fuse monitor mounting, OS30	OSZ4
Alignment ring	OHZX11
Stainless steel hasp	OHZX12
Stainless steel hasp	OHZX13

Performance data of auxiliary contacts

Ue	Ie	Ue	Ie
VAC	A	VDC	A
230	6	24	10
400	4	72	4
415	4	125	2
690	2	250	0.55
		440	0.1

Operator interface and signaling devices

Section 15

Operator interface and signaling devices

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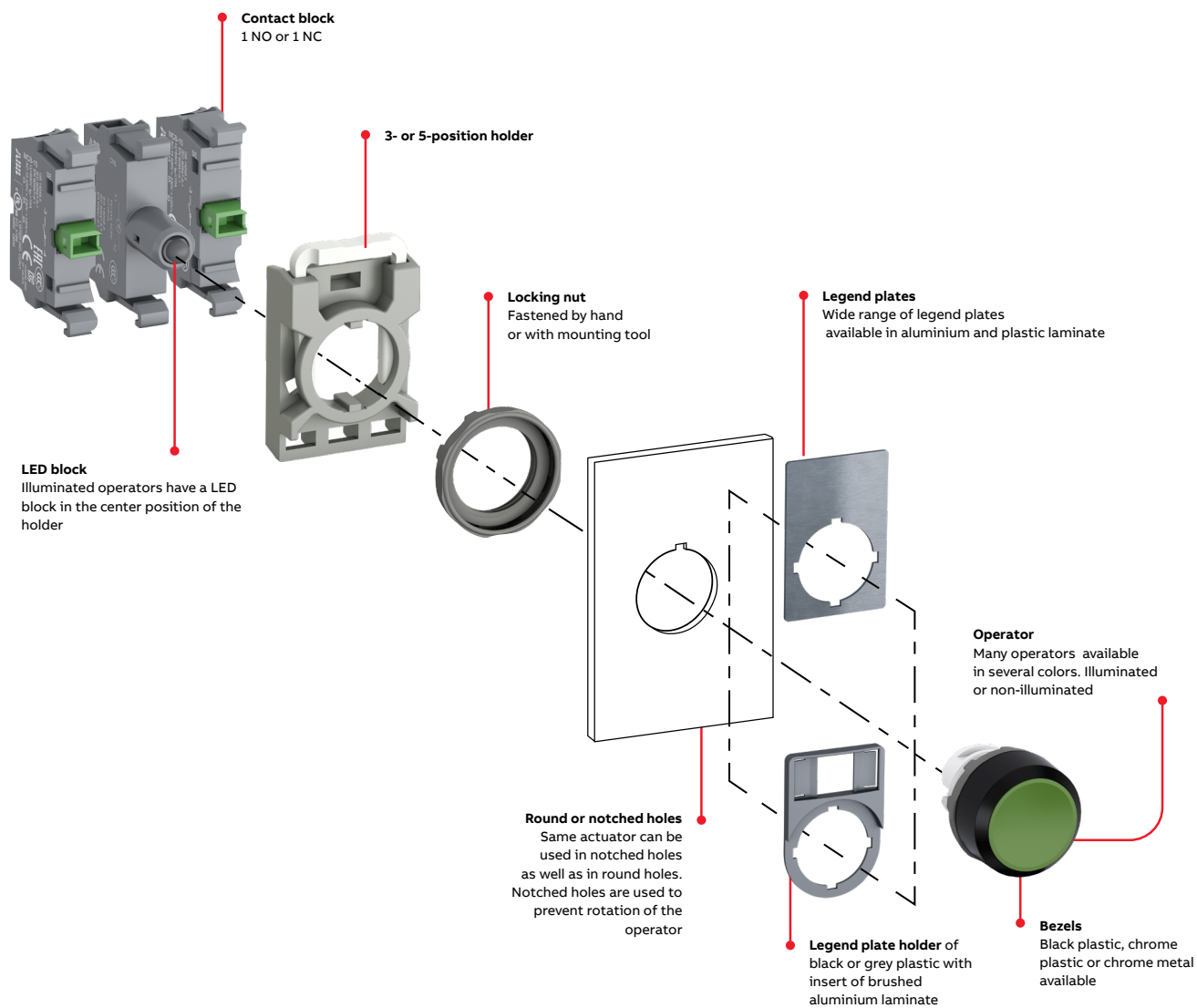
22mm - Modular metal range

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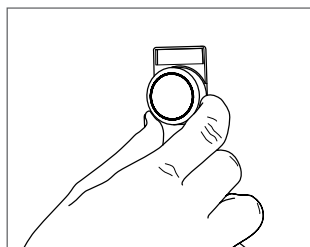
30mm Heavy Duty range

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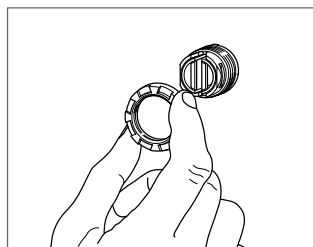
Modular plastic range



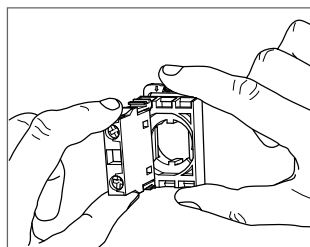
Easy to install



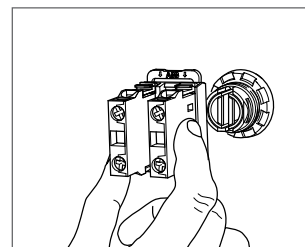
The operator is to be inserted from the front...



...and secured at the back with the nut.

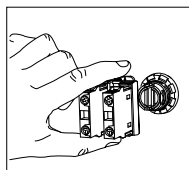
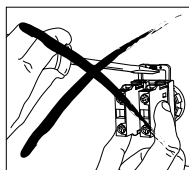


The contact blocks/LED block are then snapped on to the holder...



...and the holder snaps on to the operator.

...and to remove



Press down the spring on the holder and pull the holder from the actuator.

Simple and fast installation



Watch the video

Pilot Devices

Stocked 22mm - Modular plastic range



Modular pushbuttons, 22mm, Non-Illuminated

Color	Bezel	Ordering code
Momentary flush pushbutton		
red	black plastic	MP1-10R
red	chrome metal	MP1-30R
green	black plastic	MP1-10G
green	chrome metal	MP1-30G
black	black plastic	MP1-10B
black	chrome metal	MP1-30B
clear	black plastic	MP1-10C
blue	black plastic	MP1-10L
white	black plastic	MP1-10W
yellow	black plastic	MP1-10Y
Momentary extended pushbutton		
red	black plastic	MP3-10R
green	black plastic	MP3-10G
black	black plastic	MP3-10B
clear	black plastic	MP3-10C



Modular pushbuttons, 22mm, Illuminated

Color	Bezel	Ordering code
Momentary flush pushbutton		
red	black plastic	MP1-11R
red	chrome metal	MP1-31R
green	black plastic	MP1-11G
green	chrome metal	MP1-31G
clear	black plastic	MP1-11C
blue	black plastic	MP1-11L
white	black plastic	MP1-11W
yellow	black plastic	MP1-11Y
Maintained flush pushbutton		
red	black plastic	MP2-11R
green	black plastic	MP2-11G
Momentary extended pushbutton		
red	black plastic	MP3-11R
green	black plastic	MP3-11G
white	black plastic	MP3-11W

Table continues on next page.

Pilot Devices

Stocked 22mm - Modular plastic range



Modular double pushbuttons, 22mm, Non-Illuminated

Upper button color	Upper button text	Lower button color	Lower button text	Ordering code
Extended lower pushbutton				
green	START	red	STOP	MPD15-11B



Modular double pushbuttons, 22mm, Illuminated

Upper button color	Upper button text	Lower button color	Lower button text	Indicator light	Ordering code
Extended lower pushbutton					
green	START	red	STOP	Clear	MPD15-11C



Modular heavy duty pushbutton

Color	Ordering code
Black	KP6-40B



Modular flush reset pushbutton with shaft

Color	Text	Ordering code
Black	RESET	KPR3-104B
Blue	R	KPR3-101L

Emergency stop pushbuttons



Diameter (mm)	Color	Release method	Ordering code
Non-illuminated			
30	Red	Twist release	MPET3-10R
40	Red	Twist release	MPET4-10R
40	Red	Pull release	MPEP4-10R
40	Red	Key release code 71/ronis 455	MPEK4-11R
60	Red	Twist release	MPMT4-10R
Illuminated			
40	Red	Twist release	MPMT3-11R
60	Red	Twist release	MPMT4-11R

Modular pilot lights



Color	Ordering code
clear	ML1-100C
green	ML1-100G
blue	ML1-100L
red	ML1-100R
white	ML1-100W
yellow	ML1-100Y

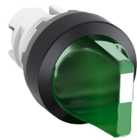
Pilot Devices

Stocked 22mm - Modular plastic range



Modular selector switch

Action	Color	Bezel	Illumination	Ordering code
2 position, short handle				
Maintained BC	Black	Black plastic	non-illuminated	M2SS1-10B
Maintained AC	Black	Black plastic	non-illuminated	M2SS2-10B
Maintained AC	Black	Chrome metal	non-illuminated	M2SS2-30B
3 position, short handle				
Maintained ABC	Black	Black plastic	non-illuminated	M3SS1-10B
Maintained ABC	Black	Chrome metal	non-illuminated	M3SS1-30B
Momentary, spring return from A to B and from C to B	Black	Black plastic	non-illuminated	M3SS2-10B
Momentary, spring return from C to B	Black	Black plastic	non-illuminated	M3SS3-10B
Momentary, spring return from A to B	Black	Black plastic	non-illuminated	M3SS7-10B
2 position, long handle				
Maintained BC	Black	Black plastic	non-illuminated	M2SS4-10B
Maintained AC	Black	Black plastic	non-illuminated	M2SS5-10B
3 position, long handle				
Maintained ABC	Black	Black plastic	non-illuminated	M3SS4-10B
2 position, short handle				
Maintained AC	Green	Black plastic	Illuminated	M2SS2-11G
Maintained ABC	Green	Black plastic	Illuminated	M3SS1-11G
2 position, key release code 71/ronis 455				
Maintained BC (key removed in both positions)	---	Black plastic	non-illuminated	M2SSK1-101
Maintained BC (key removed in position B only)	---	Black plastic	non-illuminated	M2SSK2-101
Momentary, spring return from C to B (removed B only)	---	Black plastic	non-illuminated	M2SSK3-101
3 position, key release code 71/ronis 455				
Maintained ABC (key removed in all positions)	---	Black plastic	non-illuminated	M3SSK1-101
Momentary, spring return from A to B and from C to B (key removed B only)	---	Black plastic	non-illuminated	M3SSK3-101



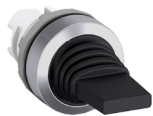
Complete potentiometer

Description	Bezel	Ordering code
Black knob with integrated position indication and marking in white		
With resistor 5 kohm	Black plastic	MT-105B
With resistor 5 kohm	Chrome metal	MT-305B
With resistor 10 kohm	Black plastic	MT-110B
With resistor 10 kohm	Chrome metal	MT-310B



Toggle switch

Description	Bezel	Ordering code
Maintained AC	Black plastic	MTS1-10B
Momentary, spring return from A to B and from C to B	Black plastic	MTS2-10B



Joysticks IP67 and IP69K

Description	Bezel	Ordering code
2-position momentary	Chrome metal	MJS2-60B
4-position momentary	Chrome metal	MJS6-60B



Pilot Devices

Stocked 22mm - Modular plastic range accessories



Holders

Description	Ordering code
3-positions	MCBH-00
5-positions	MCBH5-00



Contact blocks

Description	Ordering code
Single contact blocks for front mounting	
1 NO	MCB-10
1 NC	MCB-01
1 NO with gold plated contacts	MCB-10G
1 NC with gold plated contacts	MCB-01G
Micro switch contact blocks	
1 NO	MCBL-10
1 NC	MCBL-01
Double contact blocks for front mounting	
2 NO	MCB-20
2 NC	MCB-02
Single contact blocks for back mounting	
1 NO	MCB-10B
1 NC	MCB-01B



LED blocks, 10 mA	Rated voltage	Wave length mm	Luminance mcd	Ordering code
Color				
Red	24V AC/DC	620	250	MLBL-01R
Green	24V AC/DC	520	1500	MLBL-01G
Yellow	24V AC/DC	588	250	MLBL-01Y
Blue	24V AC/DC	468	450	MLBL-01L
White	24V AC/DC	---	600	MLBL-01W
Red	110-130V AC	620	200	MLBL-04R
Green	110-130V AC	520	1200	MLBL-04G
Yellow	110-130V AC	588	250	MLBL-04Y
White	110-130V AC	---	500	MLBL-04W
Red	110-130V DC	620	250	MLBL-05R
Red	230V AC	620	250	MLBL-07R
Green	230V AC	520	1500	MLBL-07G
Yellow	230V AC	588	300	MLBL-07Y

Specific Accessories for Modular Metal Range

Adapter ring for 30 mm hole to mount P9 22 mm in a 30 mm hole	P9A-RAM32
Locking ring wrench	P9A-CWAF
Shroud for modular emergency stop, yellow	MA1-8053
Shroud for compact emergency stop, yellow	CA1-8053
Protective cover for flush pushbuttons (modular/compact)	KA1-8010



Table continues on next page.

Pilot Devices

Stocked 22mm - Modular plastic range accessories



Specific Accessories for Modular Metal Range

Spacer, 1mm thick	SK615516-1
Blanking plug, black (modular/compact)	KA1-8028
Black legend plate holder	KA1-8120
Legend plate without text or symbol	KA1-8121
Legend plate "Start", 22mm	SK615550-44
Legend plate "Emergency stop", 22mm	SK615552-15
Legend plate "Forward", 22mm	SK615552-17
Legend plate "Off", 22mm	SK615552-21
Legend plate "On", 22mm	SK615552-22
Legend plate "Reverse", 22mm	SK615552-28
Legend plate "Run", 22mm	SK615552-29
Legend plate "Stop", 22mm	SK615552-31
Legend plate, black on yellow aluminum, "Emergency stop"	CA6-1026



Empty enclosures in plastic

1-seat - Grey	MEP1-0
2-seat - Grey	MEP2-0
3-seat - Grey	MEP3-0
4-seat - Grey	MEP4-0
6-seat - Grey	MEP6-0
1-seat - Yellow	MEPY1-0
For emergency stop pushbuttons - Yellow, Compact - IP66,67,69K	CEPY1-0



Empty enclosures in aluminium - Grey color

1-seat	080SP-1
2-seat	080SP-2
3-seat	080SP-3
4-seat	080SP-4

Pilot Devices

Stocked 22mm - Compact range



Compact pushbutton

Color	Contacts	Voltage rating	Bezel	Ordering code
Non-illuminated, momentary flush				
Red	1 NO	---	black plastic	CP1-10R-10
Red	1 NC	---	black plastic	CP1-10R-01
Red	1 NC	---	chrome metal	CP1-30R-01
Red	1 NO + 1 NC	---	black plastic	CP1-10R-11
Green	1 NO	---	black plastic	CP1-10G-10
Green	1 NO	---	chrome metal	CP1-30G-10
Green	1 NO + 1 NC	---	black plastic	CP1-10G-11
Green	2 NO	---	black plastic	CP1-10G-20
Yellow	1 NO	---	black plastic	CP1-10Y-10
Blue	1 NO	---	black plastic	CP1-10L-10
Black	1 NO	---	black plastic	CP1-10B-10
Black	1 NO + 1 NC	---	black plastic	CP1-10B-11
Black	2 NO	---	black plastic	CP1-10B-20
Illuminated, momentary flush				
Red	1 NO	24V AC/DC	black plastic	CP1-11R-10
Green	1 NO	24V AC/DC	black plastic	CP1-11G-10
Green	1 NO	110-130V AC/DC	black plastic	CP1-12G-10



Compact, non-illuminated emergency stop pushbuttons

Diameter (mm)	Color	Release method	Contacts	Ordering code
30	Red	Twist release	1 NC	CE3T-10R-01
30	Red	Twist release	2 NC	CE3T-10R-02
30	Red	Twist release	1 NO + 1 NC	CE3T-10R-11
40	Red	Pull release	2 NC	CE4P-10R-02
40	Red	Pull release	1 NO + 1 NC	CE4P-10R-11
40	Red	Twist release	1 NC	CE4T-10R-01
40	Red	Twist release	2 NC	CE4T-10R-02
40	Red	Twist release	1 NO + 1 NC	CE4T-10R-11
40	Red	Key release, ronix 455, key 71	2 NC	CE4K1-10R-02
40	Red	Key release, ronix 455, key 71	1 NO + 1 NC	CE4K1-10R-11



Compact selector switch

Action	Color	Bezel	Contacts	Ordering code
2 position, short handle				
Maintained BC	black	black plastic	1 NO	C2SS1-10B-10
Maintained BC	black	black plastic	1 NO + 1 NC	C2SS1-10B-11
Maintained BC	black	black plastic	2 NO	C2SS1-10B-20
Maintained AC	black	black plastic	1 NO	C2SS2-10B-10
Maintained AC	black	black plastic	1 NO + 1 NC	C2SS2-10B-11
Maintained AC	black	black plastic	2 NO	C2SS2-10B-20
3 position, short handle				
Maintained ABC	black	black plastic	2 NO	C3SS1-10B-20
Momentary, spring return from A to B and C to B	black	black plastic	2 NO	C3SS2-10B-20
Momentary, spring return from A to B and C to B	black	chrome metal	2 NO	C3SS230B-20



Pilot Devices

Stocked 22mm - Compact range and accessories



Compact buzzer

Action	Illumination	Color	Voltage rating	Ordering code
Pulsation	non-illuminated	Red	24V AC/DC	CB1-610R
Continuous	illuminated	Black	24V AC/DC	CB1-620B
Continuous	illuminated	Black	110-130V AC	CB1-621B
Pulsation	illuminated	Black	24V AC/DC	CB1-630B
Pulsation	illuminated	Black	110-130V AC	CB1-631B



Compact LED pilot light

Color	Voltage rating	Ordering code
red	24V AC/DC	CL2-502R
green	24V AC/DC	CL2-502G
clear	24V AC/DC	CL2-502C
blue	24V AC/DC	CL2-502L
yellow	24V AC/DC	CL2-502Y
green	110-130V AC	CL2-513G
red	110-130V AC	CL2-513R
yellow	110-130V AC	CL2-513Y
green	110-130V DC	CL2-515G
red	110-130V DC	CL2-515R
yellow	110-130V DC	CL2-515Y
clear	230V AC	CL2-523C
green	230V AC	CL2-523G
red	230V AC	CL2-523R
yellow	230V AC	CL2-523Y

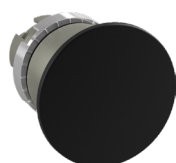
Accessories



Description	Ordering code
Chrome metal pushbutton bezel (compact)	KA1-8021
30mm adaptors for 22mm operator, black plastic (modular/compact)	KA1-8029
30mm adaptors for 22mm operator, chrome metal (modular/compact)	KA1-8030
Mounting tool for tightening the locking nut	MA1-8015

Pilot Devices

Stocked 22mm - Modular metal range



Modular Metal pushbuttons - 22mm

Description		Ordering code
Momentary flush pushbutton		
red		P9M-PNRG
green		P9M-PNVG
black		P9M-PNNG
blue		P9M-PNLG
yellow		P9M-PNGG
white		P9M-PN BG
Momentary extended pushbutton		
red		P9M-PNRS
green		P9M-PNVS
black		P9M-PNNS
white		P9M-PNBS
Momentary flush pushbutton - Illuminated		
red		P9M-PLRGD
green		P9M-PLVGD
blue		P9M-PLLGD
yellow		P9M-PLGGD
white		P9M-PLBGD
Momentary extended pushbutton - Illuminated		
red		P9M-PLRSD
green		P9M-PLVSD
white		P9M-PLBSD
orange		P9M-PLASD
Marked pushbuttons - momentary		Text
green	START	P9M-PNVG202
red	STOP	P9M-PNRG201
blue	R	P9M-PNLG037
red	O	P9M-PNRG029
green	I	P9M-PNVG028
black	I	P9M-PNNG028
Mushroom pushbuttons - maintained		Operator size
red	Ø 40 mm	P9M-EM4RN
green	Ø 40 mm	P9M-EM4VN
black	Ø 40 mm	P9M-EM4NN
Mushroom pushbuttons - momentary		Release method
red	Ø 40 mm	Twist release
Mushroom pushbuttons - maintained with key		Key code
red	Key code 37	P9M-EC4RN37
Mushroom pushbuttons - momentary - Illuminated		Operator size
red	Ø 40 mm	-
Mushroom pushbuttons - maintained - Illuminated		Release method
red	Ø 40 mm	Pull release
		P9M-ET4RL1

Pilot Devices

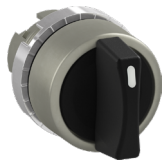
Stocked 22mm - Modular metal range



Pilot lights	
	Ordering code
clear	P9M-LID
green	P9M-LVD
blue	P9M-LLD
red	P9M-LRD
white	P9M-LBD
yellow	P9M-LGD
orange	P9M-LAD

Pilot Devices

Stocked 22mm - Modular metal accessories



Selector switches

Key-operated 2-position	Ordering code
Maintained BC	P9M-SCI0C01
Momentary BC	P9M-SCI5C01
Key-operated 3-position	
Maintained ABC	P9M-SCZ0T01
Momentary ABC, spring return from A to B and from C to B	P9M-SCZ3C01
2-position	
Maintained AC	P9M-SMD0N
Maintained BC	P9M-SMI0N
Momentary BC, spring return from C to B	P9M-SMI5N
3-position - short handle	
Maintained ABC	P9M-SMZ0N
Momentary ABC, spring return from A to B and from C to B	P9M-SMZ3N
Momentary ABC, spring return from C to B	P9M-SMZ5N

Contact blocks

Description	Ordering code
Single contact blocks - Faston Terminals	
1 NO	P9B-10FN
1 NC	P9B-01FN
Holders	
3-position	P9A-CFS3
5-position	P9A-CFS5
Single contact blocks for front mounting	
1 NO	P9B-10VN
1 NC	P9B-01VN
Single contact blocks with N.O. early make contacts and N.C. late break contacts	
1 NO	P9B-10VA
1 NC	P9B-01VR
Double contact blocks	
1 NO + 1 NC	P9B-11VN
2 NO	P9B-20VN
2 NC	P9B-02VN
Power Supply block for LED bulbs (BA9S)	
Full voltage - bulb not included IEC: BA9S max 380 V - 2 W UL - CSA: BA9S max 250 V - 2 W	P9P-DNV0
Power Supply block for LED bulbs (BA9S) - Faston Terminals	
Full voltage - bulb not included IEC: BA9S max 380 V - 2 W UL - CSA: BA9S max 250 V - 2 W	P9P-DNF0
Full voltage - bulb not included IEC: BA9S max 380 V - 2 W UL - CSA: BA9S max 250 V - 2 W	P9P-DNF0-AA



Pilot Devices

Stocked 22mm - Modular metal accessories

LED blocks for front mounting	Voltage	Ordering code
green	24V AC/DC	P9P-LNVDV
blue	24V AC/DC	P9P-LNVDL
red	24V AC/DC	P9P-LNVDR
white	24V AC/DC	P9P-LNVDB
yellow	24V AC/DC	P9P-LNVDG
green	120V AC	P9P-LNVJV
blue	120V AC	P9P-LNVJL
red	120V AC	P9P-LNVJR
white	120V AC	P9P-LNVJB
yellow	120V AC	P9P-LNVJG
green	230V AC	P9P-LNVNV
blue	230V AC	P9P-LNVNL
red	230V AC	P9P-LNVNR
white	230V AC	P9P-LNVNB
yellow	230V AC	P9P-LNVNG

Accessories



Protection cover	Ordering code
Protection cover padlockable for standard pushbuttons, illuminated pushbuttons, selector switches, illuminated selector switches	P9A-CRCL



Maintained accessory	Ordering code
Device for standard pushbuttons, illuminated pushbuttons: To be used only with contact blocks P9B01VN, P9B01VR, P9B10VA and P9B01FN	P9A-CDPP

Tools	Ordering code
Locking ring wrench	P9A-CWAF



Adapter ring	Ordering code
Adapter ring for 30 mm hole to mount P9 22 mm in a 30 mm hole	P9A-RAM32

Terminal adapter	Ordering code
PCB adapter for faston contacts	P9A-CA6



Rubber protective caps (IP66) for standard pushbuttons	Ordering code
Flush Pushbuttons	
Red	080CP-R
Green	080CP-V
Black	080CP-N
Clear	080CP-T
Extended pushbuttons	
Clear	P9A-RCST

Modular pilot devices

Heavy duty 30mm



Heavy duty 30mm push buttons

Color	Cap type	Contacts	Ordering code
All caps colors included	Extended	1NO+1NC	A3PBE1-6007-91
Green	Extended	1NO+1NC	A3PBE1-600G-91
Red	Extended	1NO+1NC	A3PBE1-600R-91
All caps colors included	Flush	1NO+1NC	A3PBF1-6007-91
Black	Flush	1NO	A3PBF1-600B-10
Green	Flush	1NO+1NC	A3PBF1-600G-91
Blue	Flush	1NO+1NC	A3PBF1-600L-91
Red	Flush	1NO+1NC	A3PBF1-600R-91

Heavy duty 30mm illuminated push buttons

Color	Cap type	Lamp voltage	Contacts	Ordering code
Green	Extended	24V AC/DC	1NO+1NC	A3PLE1-6L2G-91
Amber	Extended	24V AC/DC	1NO+1NC	A3PLE1-6L2M-91
Red	Extended	24V AC/DC	1NO+1NC	A3PLE1-6L2R-91
Green	Extended	120V AC/DC	1NO+1NC	A3PLE1-6L4G-91
Blue	Extended	120V AC/DC	1NO+1NC	A3PLE1-6L4L-91
Amber	Extended	120V AC/DC	1NO+1NC	A3PLE1-6L4M-91
Red	Extended	120V AC/DC	1NO+1NC	A3PLE1-6L4R-91
Green	Extended	Transformer 120V AC	1NO+1NC	A3PLE1-6L5G-91
Amber	Extended	Transformer 120V AC	1NO+1NC	A3PLE1-6L5M-91
Red	Extended	Transformer 120V AC	1NO+1NC	A3PLE1-6L5R-91
Green	Extended	Transformer 240V AC	1NO+1NC	A3PLE1-6L6G-11
Amber	Extended	Transformer 240V AC	1NO+1NC	A3PLE1-6L6M-11

Heavy duty 30mm pilot lights

Color	Lamp type	Lamp voltage	Ordering code
Green	Full Voltage LED	24V AC/DC	A3L4AA-6L2G
Blue	Full Voltage LED	24V AC/DC	A3L4AA-6L2L
Amber	Full Voltage LED	24V AC/DC	A3L4AA-6L2M
Red	Full Voltage LED	24V AC/DC	A3L4AA-6L2R
White	Full Voltage LED	24V AC/DC	A3L4AA-6L2W
Green	Full Voltage LED	120V AC/DC	A3L4AA-6L4G
Amber	Full Voltage LED	120V AC/DC	A3L4AA-6L4M
Red	Full Voltage LED	120V AC/DC	A3L4AA-6L4R
White	Full Voltage LED	120V AC/DC	A3L4AA-6L4W
Green	Transformer LED	120V AC	A3L4AA-6L5G
Blue	Transformer LED	120V AC	A3L4AA-6L5L
Amber	Transformer LED	120V AC	A3L4AA-6L5M
Red	Transformer LED	120V AC	A3L4AA-6L5R
Green	Transformer LED	240V AC	A3L4AA-6L6G
Red	Transformer LED	240V AC	A3L4AA-6L6R
Red	Transformer LED	480V AC	A3L4AA-6L8R
Green	Full Voltage LED	6-24V AC/ DC	A3L4AA-6LLG
Red	Full Voltage LED	6-24V AC/ DC	A3L4AA-6LLR

Modular pilot devices

Heavy duty 30mm

Heavy duty 30mm momentary mushroom push buttons

Color	Mushroom size	Contacts	Ordering code
Black	44mm	1NO+1NC	A3PB41-600B-91
Green	44mm	1NO	A3PB41-600G-10
Red	44mm	1NC	A3PB41-600R-01
Red	44mm	1NO	A3PB41-600R-10
Yellow	44mm	1NO	A3PB41-600Y-10

Heavy duty 30mm maintained mushroom push buttons

Color	Mushroom Size	Release type	Contacts	Ordering code
Black	44mm	Pull release	1NO+1NC	A3PP42-600B-11
Red	44mm	Pull release	1NO+1NC	A3PP42-600R-11
Red	44mm	Twist release	1NO+1NC	A3PT4R-600R-91

Heavy duty 30mm illuminated momentary mushroom push buttons

Color	Mushroom size	Contacts	Ordering code
Red	44mm	1NO	A3PL41-6LBR-10

Heavy duty 30mm illuminated maintained mushroom push buttons

Color	Mushroom size	Release type	Lamp voltage	Contacts	Ordering code
Green	44mm	Pull release	24V AC/DC	1NO+1NC	A3PP42-6L2G-11
Red	44mm	Pull release	24V AC/DC	1NO+1NC	A3PP42-6L2R-91
Red	44mm	Pull release	Transformer 120V AC	1NO+1NC	A3PP42-6L5R-91
Red	44mm	Pull release	120V AC/DC	1NO+1NC	A3PP42-6L4R-91

Heavy duty 30mm selector switches

Lever Insert Color	Position	CAM type	Contacts	Ordering code
White	2 Position	A CAM	None	A3SSAA-6AAB-00
White	2 Position	A CAM	1NO+1NC	A3SSAA-6AAB-91
White	3 Position	C CAM	None	A3SSCA-6AAB-00
White	3 Position	C CAM	1NO+1NC	A3SSCA-6AAB-91
White	3 Position	C CAM	None	A3SSCB-6AAB-00

Modular pilot devices

Heavy duty 30mm

Heavy duty 30mm accessories | Contact Blocks

Description	Contacts	Ordering code
Contact block	1NC	A3XC01
Contact block	1NC LATE BREAK	A3XC0B
Contact block	1NO	A3XC10
Contact block	1NO+1NC	A3XC91
Contact block	1NO EXTRA LATE BREAK	A3XC0N

Heavy duty 30mm accessories | Caps

Color	Lamp type	Ordering code
Red	44mm Mushroom Pushbutton	A3XL4NR
Red	60mm Mushroom Pushbutton	A3XL6NR
Clear	Extended Pushbutton	A3XLELC
Green	Extended Pushbutton	A3XLELG
Blue	Extended Pushbutton	A3XLELL
Amber	Extended Pushbutton	A3XLELM
Red	Extended Pushbutton	A3XLELR
White	Extended Pushbutton	A3XLELW
All Caps Colors Included	Extended Pushbutton	A3XLENA
Green	Extended Pushbutton	A3XLENG
Red	Extended Pushbutton	A3XLENR
All Caps Colors Included	Flush Pushbutton	A3XLFNA
Green	Flush Pushbutton	A3XLFNG
Blue	Flush Pushbutton	A3XLFNL
Red	Flush Pushbutton	A3XLFNR
Yellow	Flush Pushbutton	A3XLFNY
Green	Kit Knob and Lens	A3XLKLG
Amber	Kit Knob and Lens	A3XLKLM
Red	Kit Knob and Lens	A3XLKLR
White	Kit Knob and Lens	A3XLKLW
Clear	Illuminated Lens	A3XLLLC
Green	Illuminated Lens	A3XLLLG
Amber	Illuminated Lens	A3XLLLM
Red	Illuminated Lens	A3XLLLR
White	Illuminated Lens	A3XLLLW
Red	44mm Metal Mushroom	A3XLM4R
Red	44mm Illuminated Metal Mushroom	A3XLMNR
Red	44mm Mushroom Twist Release	A3XLTNR

Heavy duty 30mm accessories | Lamp module

Color	Voltage	Ordering code
Red	Full Voltage 24V AC/DC	A3XM4LR
Yellow	Full Voltage 24V AC/DC	A3XM4LY
Green	Full Voltage 24-240V AC/DC	A3XM4LUG
No Color	Full Voltage 120V AC	A3XMN4N
No Color	Transformer 240V AC	A3XMN6N
No Color	Transformer 277V AC	A3XMN7N
No Color	Transformer 480V AC	A3XMN8N

Modular pilot devices

Heavy duty 30mm

Heavy duty 30mm accessories | Lamps

Color	Voltage	Ordering code
Green	Full Voltage 24V AC/DC	A3XBL2G
Red	Full Voltage 24V AC/DC	A3XBL2R
Blue	Full Voltage 120V AC/DC	A3XBL4L
Red	Full Voltage 120V AC/DC	A3XBL4R
Yellow	Full Voltage 120V AC/DC	A3XBL4Y
White	Full Voltage 6V AC/DC	A3XBL6W

Heavy duty 30mm accessories | Key and boots

Description	Ordering code
501 Spare Key	A3XK501
Black Protective Boot	A3XLP0B
Clear Protective Boot	A3XLP0C

Nameplates

Description	Ordering code
STOP (RED)	CR104PXN1RP040
HAND OFF	CR104PXN1BP070
OFF ON	CR104PXN1BP057
START	CR104PXN1BP037

Enclosures

Description	Color	Holes	Ordering code
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	3	CR104PEG13
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	2	CR104PEG12
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	1	CR104PEG11

Machine safety

Section 16

Machine safety

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Safety relays

Sentry safety relays



Sentry with screw and push-in terminals

Screw-in connectors

Type	Voltage	Timer	Safety Outputs	Expansion of safe outputs	Manual Reset	Two hand device	Safety Mats, Edges and Bumpers	Dual channel OSSD devices	Dual Channel with NO/NC contacts	Dual Channel with 2NC contacts	Single Channel	Ordering Code
BSR10	24 V DC		3 NO + 1 NC	•					1	•		2TLA010040R0000
BSR11	24 V DC		4 NO	•					1	•		2TLA010040R0200
BSR23	24 V DC		4 NO + 1 NC	•						•		2TLA010041R0600
SSR10	24 V DC		3 NO + 1 NC	•	•			•		•	•	2TLA010050R0000
SSR20	24 V DC		3 NO + 1 NC		•	•						2TLA010051R0000
SSR32	24 V DC	Off delay 0.5s	2 NO + 2 NO delayed	•				•		•	•	2TLA010052R0400
SSR42	24 V DC	Off delay 1.5s	2 NO + 2 NO delayed	•				•		•	•	2TLA010053R0400
SSR10M	³		3 NO + 1 NC	•	•					•		2TLA010050R0100
SSR20M	³		3 NO + 1 NC		•	•						2TLA010051R0100
TSR10	24 V DC	0 - 999s ²	3 NO + 1 NC	•				•		•	•	2TLA010060R0000
TSR20	24 V DC	Off delay 0.5/1.5s	3 NO + 1 NC	•				•		•	•	2TLA010061R0000
TSR20M	³	Off delay 0.5/1.5s	3 NO + 1 NC	•						•		2TLA010061R0100
USR10	24 V DC	0 - 999s ²	3 NO + 1 NC		•	•	•	•	•	•	•	2TLA010070R0000
USR22	24 V DC	0 - 999s ²	2 NO + 2 NO delayed		•	•	•	•	•	•	•	2TLA010070R0400

¹ No monitoring of two-channel fault, i.e max Category 3 without fault exclusion

² Off-delay, On-delay, Time bypass or Time reset. Configurable model with display

³ 85-265 V AC / 120-275 V DC

Safety relays

Sentry safety relays

Push-in connectors

Type	Voltage	Timer	Safety Outputs	Expansion of safe outputs	Manual Reset	Two hand device	Safety Mats, Edges and Bumpers	Dual channel OSSD devices	Dual Channel with NO/NC contacts	Dual Channel with 2NC contacts	Single Channel	Ordering Code
BSR10P	24 V DC		3 NO + 1 NC	•						1	•	2TLA010040R0001
BSR11P	24 V DC		4 NO	•						1	•	2TLA010040R0201
BSR23P	24 V DC		4 NO + 1 NC	•						•		2TLA010041R0601
SSR10P	24 V DC		3 NO + 1 NC	•	•			•		•	•	2TLA010050R0001
SSR20P	24 V DC		3 NO + 1 NC		•	•						2TLA010051R0001
SSR32P	24 V DC	Off delay 0.5s	2 NO + 2 NO delayed		•			•		•	•	2TLA010052R0401
SSR42P	24 V DC	Off delay 1.5s	2 NO + 2 NO delayed		•			•		•	•	2TLA010053R0401
SSR10MP	³		3 NO + 1 NC	•	•					•		2TLA010050R0101
SSR20MP	³		3 NO + 1 NC		•	•						2TLA010051R0101
TSR10P	24 V DC	0 - 999s ²	3 NO + 1 NC	•				•		•	•	2TLA010060R0001
TSR20P	24 V DC	Off delay 0.5/1.5s	3 NO + 1 NC	•				•		•	•	2TLA010061R0001
TSR20MP	³	Off delay 0.5/1.5s	3 NO + 1 NC	•						•		2TLA010061R0101
USR10P	24 V DC	0 - 999s ²	3 NO + 1 NC		•	•	•	•	•	•	•	2TLA010070R0001
USR22P	24 V DC	0 - 999s ²	2 NO + 2 NO delayed		•	•	•	•	•	•	•	2TLA010070R0401

¹ No monitoring of two-channel fault, i.e max Category 3 without fault exclusion

² Off-delay, On-delay, Time bypass or Time reset. Configurable model with display

³ 85-265 V AC / 120-275 V DC

Safety programmable logic controllers

Safety controllers and accessories



Vital 1

Vital safety controller

Type	DYNlink circuits	Maximum DYNlink devices	Safe outputs	Ordering Code
VITAL1	1	30	2 NO	2TLA020052R1000



Pluto B46 v2

Pluto programmable safety controller

Type	Style	Number of I/O	FailSafe inputs	FailSafe input or non-safe outputs	Safe Outputs	Ordering Code
S20 v2	Stand Alone	20	8	8	4	2TLA020070R4700
S46 v2	Stand Alone	46	24	16	6	2TLA020070R1800
B20 v2	Safety Bus	20	8	8	4	2TLA020070R4600
B22	Safety Bus	22	14	8	0	2TLA020070R4800
B46 v2	Safety Bus	46	24	16	6	2TLA020070R1700

Note: Pluto programmable safety controller SIL 3/Plc safety rated

Pluto Programmable Safety Controller Accessories



Pluto and accessories

Type	Description	Ordering Code
GATE-E1P	Gateway for 2-way communication between the Pluto Safety Bus and Ethernet/IP	2TLA020071R9000
IDFIX-R	Identifier, read only. For assigning Pluto an address on the Pluto Safety Bus	2TLA020070R2000
IDFIX-RW	Identifier, read / write. For assigning Pluto an address on the Pluto Safety Bus	2TLA020070R2100
IDFIX-PROG 10k	External memory, 10 kbyte. For projects with only one Pluto, store the PLC program	2TLA020070R2600
Programming Cable USB	Cable for connecting PC, USB port to Pluto for programming with Pluto Manager	2TLA020070R5800

Safety sensors and emergency stops



Adam DYN Info and
Eva General code



Smile 11EA Tina



Inca 1 Tina V2



Smile 41 EWWWP



EStrong Z with and
without LED

Eden non-contact safety sensors

Type	Description	Ordering Code
Adam DYN Info	M12-5 for single & series applications, for use in DYNlink circuits	2TLA020051R5100
Adam DYN Status	M12-5, StatusBus for use in DYNlink circuits(Use on Pluto Only)	2TLA020051R5200
Eva General Code	All coded the same code	2TLA020046R0800
Eva Unique Code	Unique coding to prevent bypassing	2TLA020046R0900
Adam OSSD Info M12-5	M12-5 for single sensor applications, for use with Safety Relays	2TLA020051R5400
Adam OSSD Info M12-8	M12-8 for single & series applications, for use with Safety Relays	2TLA020051R5700

Smile and Inca emergency stops and resets buttons

Type	Description	Ordering Code
Smile Tina 11 EA	Emergency stop (red) in an enclosure, 1 x M12 5-pin male connector, for use in DYNlink circuits	2TLA030050R0000
Smile Tina 12 EA	Emergency stop (red) in an enclosure, 1 x M12 5-pin male connector and 1 x M12 5-pin female connector, for use in DYNlink circuits	2TLA030050R0200
Inca 1 Tina V2	Emergency stop (red) button for panel mounting, 22.5 mm holes, status LED in button, terminal block with screw terminals, for use in DYNlink circuits	2TLA030054R0010
Smile 11 RA	Reset button in an enclosure, 1 button + LED with colored lens covers, 1 x M12 5-pin male connector. For use with Vital/Safety Relays	2TLA030053R0000
Smile 11 RB	Reset button in an enclosure, 1 button + LED with colored lens covers, 1 x M12 5-pin male connector. For use with Pluto	2TLA030053R0100
Smile 41 EWWWP	Smile 41 push-button box with an emergency stop (red), 3 push-buttons and kit of colored lens covers, for use with Pluto	2TLA030057R0100
Smile 11 EA	Emergency stop (red) in an enclosure, 2 x NC, Status LED, 1 x M12 5-pin male connector. For use with Safety Relays	2TLA030051R0000
Smile 12 EA	Emergency stop (red) in an enclosure, 2 x NC, Status LED, 1 x M12 5-pin male connector and 1 x M12 5-pin female connector. For use with Safety Relays	2TLA030051R0200
INCA 1	Emergency stop (red) button for panel mounting, 22.5 mm holes, 2 x NC, Status LED, terminal block with screw terminals . For use with Safety Relays	2TLA030054R0100

EStrong Z Heavy duty emergency stop - Dual channel

Type	Description	Ordering Code
EStrong Z	Emergency Stop with 2 NC/2 NO, 1/2 NPT threads, SS	2TLA050220R1020
EStrong Z	Emergency Stop with 2 NC/2 NO, 1/2 NPT threads, SS, 24VDC LED	2TLA050220R1222
Accessory	1/2 NPT 316 SS Cable Gland	2TLA050040R0001

Safety control devices



JSTD1 and JSMC5



JSTD25H

SafeBall two-handed control actuator

Type	Description	Ordering Code
JSTD1-A	1 NO and 1 NC independent switches, maximum load of 30 V DC - 2A resistive. IP67 protection, plastic body, 2 meters molded cable	2TLA020007R3000
JSTD1-B	1 NO and 1 NC independent switches, maximum load of 30 V DC - 2A resistive. IP67 protection, plastic body, 0.2 M wires x 4 for direct connection into an enclosure	2TLA020007R3100
JSTD1-E	2 NO independent switches, maximum load of 30 V DC - 2A resistive. IP67 protection, plastic body, 0.2 M wires x 4 for direct connection	2TLA020007R3400
JSTD25H	JSTD25H with JSTD1-B Safeballs pre-wired to a M12 8-pin connector with protective flanges for the Safeballs	2TLA020007R6300
JSMC7	JSM-C7, Suspension shelf for JSTD25 FHK	2TLA020007R1200
JSMC5	Angled ball joint for installation of a Safeball on a table or a steel housing	2TLA020007R0900

JSHD4 modular enabling device

Step 1 - Select the desired handle from among the 5 standard handles



JSJD4-2

Type	Description	Ordering Code
JSJD4-1	Handle, no LEDs, no buttons, cannot use Anti-Tamper Board	2TLA020006R2100
JSJD4-2	Handle with LEDs, front button, and top button	2TLA020006R2200
JSJD4-3	Handle with LEDs	2TLA020006R2300
JSJD4-4	Handle with LEDs and front button	2TLA020006R2400
JSJD4-5	Handle with LEDs and top button	2TLA020006R2500

Step 2 - Select the desired "Bottom assembly", double check which options are available for the Handle selected



AA, AJ



AB



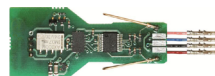
AC, AD



AL

Type	Description	Ordering Code
AA	With cable gland, only for use with JSJD4-1	2TLA020005R1000
AB	With Cannon connection	2TLA020005R1100
AC	With M12 connection (5 poles), only for use with JSJD4-1	2TLA020005R1200
AD	With M12 connection (8 poles)	2TLA020005R1300
AJ	With cable gland and PCB with 16 screw connections	2TLA020005R1800
AK	with Cannon connection (for replacement of older JSJD4 assemblies)	2TLA020005R1900
AL	Bottom assembly cable gland and 16 screw connections, holder for Eva	2TLA020005R2000

Step 3 (optional) - Choose Anti-tamper board, making your three position device cheat protected



Anti-tamper board

Type	Description	Ordering Code
Anti-Tamper Board	Hand recognition for protection against tampering (cannot be used with JSJD4-1)	2TLA020005R0900

Step 4 (optional) - Choose mounting and fastening hardware



JSM55 enabling switch holder

Type	Description	Ordering Code
JSM55	Wall Bracket	2TLA040005R0500
JSM5B	JSM5B Wall Bracket for 2 key switches, for ex. MKEY 4/5	2TLA040005R0700
JSM54A	Wall bracket for Adam. Used with AL bottom part that has a holder for Eva	2TLA020205R2800
JSM50G	Bottom Plate for MKEY 4/5	2TLA020205R6300

Locks, gate boxes and switches



Magne process locks and accessories

Type	Description	Ordering Code
Magne 3X	Magne 3X, No Safety Sensor, M12-5	2TLA042022R2700
Magne 4 DYN-Info	Magne 4 with Eden DYNlink, 8 Pin M12 Connector	2TLA042022R3400
Magne 4 OSSD-Info	Magne 4 with Eden OSSD, 8 Pin M12 Connector	2TLA042022R4600
Anchor 32D	Anchor plate, center mounting	2TLA042023R0410
Anchor 32E	Anchor plate with permanent magnet, center mounting	2TLA042023R0420
JSM D24	Mounting kit for Eva for conventional door	2TLA042023R0300

Locks, gate boxes and switches



MKEY 4



MKEY 8 and 9

MKey mechanical safety switches

Type	Description	Ordering Code
MKEY 1	Mechanical Compact safety switch 1/2 NPT threads, 2NC/1NO Angle key	2TLA050021R1100
MKEY 4	Mechanical Safety Switch 1/2 NPT threads, 2NC /1NO, with standard key	2TLA050001R1100
MKEY 4+	Mechanical Safety Switch 1/2 NPT threads, 2NC /1NO, 40N, with standard key	2TLA050001R1101
MKEY 4	Mechanical Safety Switch 1/2 NPT threads, 2NC /1NO, SS Head, with standard key	2TLA050001R1110
MKEY 8	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, die cast, standard key, power to unlock	2TLA050011R1132
MKEY 8M	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, die cast, standard key, power to lock	2TLA050013R1132
MKEY 8ER	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, die cast, standard key, power to unlock, rear release	2TLA050015R1132
MKEY 8ERZ	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, stainless steel, standard key, power to unlock, rear release	2TLA050015R1122
MKEY 9	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, plastic, standard key, power to unlock	2TLA050007R1112
MKEY 9M	Mechanical Solenoid Safety Switch, 1/2 NPT threads, 2NC/1NO, 24 V solenoid, plastic, with standard key, power to lock	2TLA050009R1112
Accessory	Mkey 4,5,6,8,9 Flat Actuator	2TLA050040R0220
Accessory	Mkey 4,5,6,8,9 Std. Actuator	2TLA050040R0202
Accessory	Mkey 4,5,6,8,9 Met. Flex Key	2TLA050040R0203

Sense non-contact magnetic safety switch



Sense 7Z

Type	Description	Ordering Code
Sense 5Z	Stainless Steel body, 5m cable, 2NC/1NO LED, 24VDC, coded actuator	2TLA050054R5120
Sense 5Z QC	Stainless Steel body, M12 8 pin quick connect, 2NC/1NO LED, 24VDC, coded actuator	2TLA050054R2120
Sense 6	Plastic body, 5m cable, 2NC/1NO LED, 24VDC	2TLA050074R5100
Sense 6 QC	Plastic body, M12 8 pin quick connect, 5m cable, 2NC/1NO LED, 24VDC	2TLA050074R2100
Sense 7Z	Stainless Steel body, 5m cable, 2NC/1NO LED, 24VDC, coded actuator	2TLA050056R5120
Sense 7Z QC	Stainless Steel body, M12 8 pin quick connect, 2NC/1NO LED, 24VDC, coded actuator	2TLA050056R2120
Sense 8	Plastic body, 5m cable, 2NC/1NO LED, 24VDC	2TLA050076R5100
Sense 8 QC	Plastic body, M12 8 pin quick connect, 2NC/1NO LED, 24VDC	2TLA050076R2100

Optical safety devices

Orion safety light curtains and accessories



Orion 1 base

Orion 1 safety light curtain base model

Types	Description	Ordering Code
Orion 1-4-14-030-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 14mm resolution and 300mm/11.8inch height	2TLA022300R0100
Orion 1-4-14-060-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 14mm resolution and 600mm/23.6inch height	2TLA022300R0300
Orion 1-4-14-090-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 14mm resolution and 900mm/35.5inch height	2TLA022300R0500
Orion 1-4-30-030-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 300mm/11.8inch height	2TLA022302R0100
Orion 1-4-30-045-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 450mm/17.7inch height	2TLA022302R0200
Orion 1-4-30-060-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 600mm/23.6inch height	2TLA022302R0300
Orion 1-4-30-075-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 750mm/29.5inch height	2TLA022302R0400
Orion 1-4-30-090-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 900mm/35.4inch height	2TLA022302R0500
Orion 1-4-30-120-B	Light curtain (both transmitter and receiver) base model with built in reset and EDM, 30mm resolution and 1200mm/47.2inch height	2TLA022302R0700



Orion 2 base

Orion 2 safety light grid base model perimeter guarding

Type	Description	Ordering Code
Orion 2-4-K4-120-B	Light grid (both transmitter and receiver) base model with built in reset and EDM, 4 beam with 300mm beam spacing. 1200mm/47.2inch height	2TLA022304R0300

Orion accessories

Type	Description	Ordering Code
M12-CT01BA	Transfer cable, for use with Tina 10A and 10C, puts basic model light curtain in auto reset with no EDM	2TLA022315R3000
JSM-ORION03	JSM-03 Rotational bracket for Orion 1 Base	2TLA022310R0100

Note: see page 16-11 for a list of cables available

Rope pull switches

LineStrong



LineStrong 1



LineStrong 2



LineStrong 3L



Rope pull kit



Pulley galvanized

LineStrong rope pull switches

Type	Description	Ordering Code
LineStrong 1	Rope pull for up to 50m, 2NC/2NO with 1/2 NPT threads	2TLA050200R1030
LineStrong 1	Rope pull for up to 50m, 2NC/2NO with 1/2 NPT threads, with 24VDC LED	2TLA050200R1232
LineStrong 2	Rope pull for up to 80m, 2NC/2NO with 1/2 NPT threads	2TLA050202R1030
LineStrong 2	Rope pull for up to 80m, 2NC/2NO with 1/2 NPT threads, with 24VDC LED	2TLA050202R1232
LineStrong 3D	Rope pull for up to 200m, 2NC/2NO with 1/2 NPT threads, with 24VDC LED	2TLA050204R1232
LineStrong 3D	Rope pull for up to 200m, 2NC/2NO with 1/2 NPT threads, with 120VAC LED	2TLA050204R1233
LineStrong 3L	Rope pull for up to 100m, 2NC/2NO with 1/2 NPT threads, with 24VDC LED	2TLA050206R1232
LineStrong 3L	Rope pull for up to 100m, 2NC/2NO with 1/2 NPT threads, with 120VAC LED	2TLA050206R1233
LineStrong 3R	Rope pull for up to 100m, 2NC/2NO with 1/2 NPT threads, with 24VDC LED	2TLA050208R1232
LineStrong 3R	Rope pull for up to 100m, 2NC/2NO with 1/2 NPT threads, with 120VAC LED	2TLA050208R1233
Accessory	Emergency Stop Button	2TLA050211R0005
Accessory	10m stainless steel rope pull kit with Allen Key	2TLA050210R0120
Accessory	30m stainless steel rope pull kit with Allen Key	2TLA050210R0420
Accessory	50m stainless steel rope pull kit with Allen Key	2TLA050210R0520
Accessory	10m galvanized steel rope pull kit with Allen Key	2TLA050210R0130
Accessory	30m galvanized steel rope pull kit with Allen Key	2TLA050210R0430
Accessory	50m galvanized steel rope pull kit with Allen Key	2TLA050210R0530
Accessory	Flex Roller eyebolt with adjustment	2TLA858006R1300
Accessory	1/2 NPT Stainless Steel cable gland	2TLA050040R0001
Accessory	Rope tensioner, stainless steel	2TLA050210R4020
Accessory	Rope tensioner, galvanized steel	2TLA050210R4030
Accessory	Pulley galvanized steel	2TLA050210R6030
Accessory	Safety Spring, 220MM, Stainless Steel	2TLA050211R0004

Note: Order Estop buttons for LineStrong 1/2/3 separately

Safety accessories

DYNlink Tina adapters



Tina 2A/B



Tina 3A



Tina 7A



Tina 10A/B/C

DYNlink adapters for dual channel devices

Type	Description	Type of connection to the DYNlink loop	Type of safety device commonly connected to	Ordering Code
Tina 2A	Mounted directly on the device enclosure to an M20 cable entry	Via the device connection	Devices with positively driven force-guided contacts like E-Stop buttons and key switches	2TLA020054R0100
Tina 2B	Placed inside the safety device enclosure			2TLA020054R1100
Tina 3A	Mounted directly on the device enclosure to an M20 cable entry	M12-5 male connector		2TLA020054R0200
Tina 3Aps	Two circuits and with supply voltage for a safety sensor. Connects to an M20 cable entry	M12-5 male connector with extra conductor for the supply of the safety device		2TLA020054R1400
Tina 7A	Mounted on a DIN rail in the electrical cabinet. Note that the connected safety device(s) must be mounted in the same cabinet	Removable terminal blocks		2TLA020054R0700
Tina 10A v2	Adaptation of OSSD to DYNlink. Two M12 connectors	M12-5 male connector	Devices with OSSD outputs like Orion light guards	2TLA020054R1210
Tina 10B v2	Adaptation of OSSD to DYNlink, for local reset, Three M12 connectors	M12-5 male connector		2TLA020054R1310
Tina 10C v2	Adaptation of OSSD to DYNlink with possibility to power the transmitter. Three M12 connectors	M12-5 male connector		2TLA020054R1610

Connection blocks for serial connection of DYNlink devices (or devices with Tina adapter)



Tina 4A

Type	Description	Ordering Code
Tina 4A	Connection block for the serial connection of up to 4 DYNlink devices with M12-5 connectors	2TLA020054R0300
Tina 8A	Connection block for the serial connection of up to 8 DYNlink devices with M12-5 connectors	2TLA020054R0500
Tina 11A	Connection block for the serial connection of up to 2 DYNlink devices with M12-5 connectors	2TLA020054R1700

Tina 1A is used to complete the serial connection on a Tina 4/8A safety port block



Tina 1A

Type	Description	Ordering Code
Tina 1A	Tina 1A is a blind plug connected to the unused M12 connectors of the connection blocks Tina 4A and Tina 8A	2TLA020054R0000

Safety accessories

Cables and connectors



Cables

Type	Description	Ordering Code
M12-C61	6m shielded cable Single Ended with M12 5 pin female connector	2TLA020056R0000
M12-C101	10m shielded cable Single Ended with M12 5 pin female connector	2TLA020056R1000
M12-C201	20m shielded cable Single Ended with M12 5 pin female connector	2TLA020056R1400
M12-C112	1m shielded cable Double Ended with M12 5 pin female connector and M12 5 pin male connector	2TLA020056R2000
M12-C312	3m shielded cable Double Ended with M12 5 pin female connector and M12 5 pin male connector	2TLA020056R2100
M12-C612	6m shielded cable Double Ended with M12 5 pin female connector and M12 5 pin male connector	2TLA020056R2200
M12-C1012	10m shielded cable Double Ended with M12 5 pin female connector and M12 5 pin male connector	2TLA020056R2300
M12-C2012	20m shielded cable Double Ended with M12 5 pin female connector and M12 5 pin male connector	2TLA020056R2400
M12-C63	6m shielded cable Single Ended with M12 8 pin female connector	2TLA020056R3000
M12-C103	10m shielded cable Single Ended with M12 8 pin female connector	2TLA020056R4000
M12-C203	20m shielded cable Single Ended with M12 8 pin female connector	2TLA020056R4100
M12-C134	1m shielded cable Double Ended with M12 8 pin female connector and M12 8 pin male connector	2TLA020056R5000
M12-C334	3m shielded cable Double Ended with M12 8 pin female connector and M12 8 pin male connector	2TLA020056R5100



Field wirable M12 5 pin

Field wirable connectors

Type	Description	Ordering Code
M12-C01	Field wirable M12 5 pin female with screw terminals	2TLA020055R1000
M12-C02	Field wirable M12 5 pin male with screw terminals	2TLA020055R1100



5 pin series Y-connector

Y-connectors

Type	Description	Ordering Code
M12-3A	5 pin series Y-connector for DYNlink devices	2TLA020055R0000
M12-3S	5 pin series Y-connector that supports DYNlink devices with StatusBus, Pluto Only	2TLA020055R0600



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