

Product Identification



Notes

Basic Units

- ① XTPB pushbutton manual motor protectors (see [Page V5-T1-163](#))
 - Rated operational current up to 25A
 - Switching capacity 50 kA/415V
 - Short-circuit release, adjustable $0.6-1 \times I_n$
 - Single-phasing sensitive
- ② XTPR rotary manual motor protectors (see [Page V5-T1-164](#))
 - Rated operational current up to 32A, 65A
 - Switching capacity 150/50 kA/415V
 - Short-circuit release, fixed setting to $14 \times I_n$
 - Overload release, adjustable $0.6-1 \times I_n$
 - Single-phasing sensitive
 - With screws or spring-loaded terminals

Mounting Accessories

- ③ Rotary handle mechanism (see [Page V5-T1-169](#))
 - ON/OFF/tripped switch position indication
 - Lockable door/cover interlock
 - Extendable y plug fit extension shaft
 - Handle latched in switch positions
 - Optionally also without locking and door interlock function
- Insulated enclosures (see [Page V5-T1-172](#))
 - Surface mounting, enclosures, IP40, IP55 and IP40 and IP55 front flush mounting enclosure
- Mounting/wiring (see [Page V5-T1-169](#))
 - Component adapter for busbar mounting
 - Three-phase commoning link for side-by-side-mounting
 - Mounting kits for rapid mounting of direct-on-line, reversing and star-delta starters

Add-On Functions

- ④ Voltage releases (see [Page V5-T1-168](#))
 - Undervoltage release
 - Shunt releases
 - With screws or spring-loaded terminals
- ⑤ Standard auxiliary contacts (see [Page V5-T1-166](#))
 - ON/OFF indication
 - Differential fault indication overload/short-circuit release
 - ON/OFF for (high capacity) contact module
 - ON/OFF for starter combination
 - With early-make contacts
 - With screws or spring-loaded terminals
- ⑥ Current limiter (see [Page V5-T1-168](#))
 - Increases the switching capacity of the 10–25A manual motor protectors to 100 kA/440V
 - Can be used for individual group protection

1

Catalog Number Selection

XT Manual Motor Protectors



Product Selection

Product Selection for Manual Motor Starter Applications

When ordering, specify catalog numbers according to the following stipulations:

XT manual motor protectors are selected based on the overload current range required for a given motor. This current range is determined from the motor full load ampere rating and motor service factor usually found on the motor nameplate.

For motors with service factors less than 1.15, multiply the motor FLA by 0.90 to select appropriate MMP.

Example: For motor having FLA of 6.4A and service factor of 1.0 ($6.4A \times 0.90 = 5.76A$) select catalog number XTPB6P3B01.

See Application Note—
AP03402001E.

For motor with service factor of 1.15 or greater, use motor nameplate full load amperes to select the appropriate MMP.

Example: For motor having FLA of 11A and service factor of 1.15, select catalog number XTPR012BC1.

Frame B



XTPB Pushbutton Manual Motor Protectors—Global and North American Ratings—Frame B Type 1 and Type 2 Coordination Motor Protective Device with Thermal and Magnetic Trip

Rated Uninterrupted Current— $I_u = I_o$ (Amps)	FLA Adjustment Range/ Overload Release— I_r (Amps)	Short Circuit Release— I_m (Amps)	Maximum Motor Ratings ①							Maximum hp Rating—P (hp) UL 508/CSA C22.2 No. 14				Screw Terminal Catalog Number
			Maximum kW Rating AC-3—P (kW)			Three-Phase				Three-Phase				
			220– 240V	380– 415V	440V	500V	660– 690V	200V	240V	480V	600V			
0.16	0.1–0.16	2.2	—	—	—	—	0.06	②	②	②	②		XTPBP16BC1	
0.25	0.16–0.25	3.5	—	0.06	0.06	0.06	0.12	②	②	②	②		XTPBP25BC1	
0.4	0.25–0.4	5.6	0.06	0.09	0.12	0.12	0.18	②	②	②	②		XTPBP40BC1	
0.63	0.4–0.63	8.8	0.09	0.12	0.18	0.25	0.25	②	②	②	②		XTPBP63BC1	
1	0.63–1	14	0.12	0.25	0.25	0.37	0.55	②	②	2	1/2		XTPB001BC1	
1.6	1–1.6	22	0.25	0.55	0.55	0.75	1.1	②	②	3/4	3/4		XTPB1P6BC1	
2.5	1.6–2.5	35	0.37	0.75	1.1	1.1	1.5	1/2	1/2	1	1-1/2		XTPB2P5BC1	
4	2.5–4	56	0.75	1.5	1.5	2.2	3	3/4	3/4	2	3		XTPB004BC1	
6.3	4–6.3	88	1.1	2.2	3	3	4	1	1-1/2	3	5		XTPB6P3BC1	
10	6.3–10	140	2.2	4	4	4	7.5	3	3	7-1/2	10		XTPB010BC1	
12	8–12	168	3	5.5	5.5	5.5	11	3	3	7-1/2	10		XTPB012BC1	
16	10–16	224	4	7.5	9	9	12.5	3	5	10	10		XTPB016BC1	
20	16–20	280	5.5	9	11	12.5	15	5	—	—	15		XTPB020BC1	
25	20–25	350	5.5	12.5	12.5	15	22	—	7-1/2	15	20		XTPB025BC1	

Notes

Single-phasing sensitivity to IEC/EN 60947-4-1, VDE 0660 Part 102.

Can be snap-fit to IEC/EN 60715 top-hat (DIN) with 7.5 or 15 mm height.

Service Factor (SF)—Setting I_r of current scale in dependence of load factor:

$$SF = 1.15 \rightarrow I_r = 1 \times I_{n \text{ mot}}$$

$$SF = 1 \rightarrow I_r = 0.9 \times I_{n \text{ mot}}$$

For manual motor protective circuit breaker switching capacity, see **Page V5-T1-181**.

① Select manual motor protectors by full load amperes. Maximum motor ratings (kW, hp) are for reference only.

② In this range, calculate motor rating according to rated current. Specified values to NEC 430.6(A)(1).

Product Identification



Notes

Basic Units

- ① XTPB pushbutton manual motor protectors (see [Page V5-T1-163](#))
 - Rated operational current up to 25A
 - Switching capacity 50 kA/415V
 - Short-circuit release, adjustable $0.6-1 \times I_n$
 - Single-phasing sensitive
- ② XTPR rotary manual motor protectors (see [Page V5-T1-164](#))
 - Rated operational current up to 32A, 65A
 - Switching capacity 150/50 kA/415V
 - Short-circuit release, fixed setting to $14 \times I_n$
 - Overload release, adjustable $0.6-1 \times I_n$
 - Single-phasing sensitive
 - With screws or spring-loaded terminals

Mounting Accessories

- ③ Rotary handle mechanism (see [Page V5-T1-169](#))
 - ON/OFF/tripped switch position indication
 - Lockable door/cover interlock
 - Extendable y plug fit extension shaft
 - Handle latched in switch positions
 - Optionally also without locking and door interlock function
- Insulated enclosures (see [Page V5-T1-172](#))
 - Surface mounting, enclosures, IP40, IP55 and IP40 and IP55 front flush mounting enclosure
- Mounting/wiring (see [Page V5-T1-169](#))
 - Component adapter for busbar mounting
 - Three-phase commoning link for side-by-side-mounting
 - Mounting kits for rapid mounting of direct-on-line, reversing and star-delta starters

Add-On Functions

- ④ Voltage releases (see [Page V5-T1-168](#))
 - Undervoltage release
 - Shunt releases
 - With screws or spring-loaded terminals
- ⑤ Standard auxiliary contacts (see [Page V5-T1-166](#))
 - ON/OFF indication
 - Differential fault indication overload/short-circuit release
 - ON/OFF for (high capacity) contact module
 - ON/OFF for starter combination
 - With early-make contacts
 - With screws or spring-loaded terminals
- ⑥ Current limiter (see [Page V5-T1-168](#))
 - Increases the switching capacity of the 10–25A manual motor protectors to 100 kA/440V
 - Can be used for individual group protection

1

Catalog Number Selection

XT Manual Motor Protectors



Product Selection

Product Selection for Manual Motor Starter Applications

When ordering, specify catalog numbers according to the following stipulations:

XT manual motor protectors are selected based on the overload current range required for a given motor. This current range is determined from the motor full load ampere rating and motor service factor usually found on the motor nameplate.

For motors with service factors less than 1.15, multiply the motor FLA by 0.90 to select appropriate MMP.

Example: For motor having FLA of 6.4A and service factor of 1.0 ($6.4A \times 0.90 = 5.76A$) select catalog number XTPB6P3B01.

See Application Note—
AP03402001E.

For motor with service factor of 1.15 or greater, use motor nameplate full load amperes to select the appropriate MMP.

Example: For motor having FLA of 11A and service factor of 1.15, select catalog number XTPR012BC1.

Frame B



XTPB Pushbutton Manual Motor Protectors—Global and North American Ratings—Frame B

Type 1 and Type 2 Coordination Motor Protective Device with Thermal and Magnetic Trip

Rated Uninterrupted Current— $I_u = I_o$ (Amps)	FLA Adjustment Range/Overload Release— I_r (Amps)	Short Circuit Release— I_m (Amps)	Maximum Motor Ratings ^①							Maximum hp Rating—P (hp) UL 508/CSA C22.2 No. 14				Screw Terminal Catalog Number
			Maximum kW Rating AC-3—P (kW)			Three-Phase				Three-Phase				
			220–240V	380–415V	440V	500V	660–690V	200V	240V	480V	600V			
0.16	0.1–0.16	2.2	—	—	—	—	0.06	②	②	②	②		XTPBP16BC1	
0.25	0.16–0.25	3.5	—	0.06	0.06	0.06	0.12	②	②	②	②		XTPBP25BC1	
0.4	0.25–0.4	5.6	0.06	0.09	0.12	0.12	0.18	②	②	②	②		XTPBP40BC1	
0.63	0.4–0.63	8.8	0.09	0.12	0.18	0.25	0.25	②	②	②	②		XTPBP63BC1	
1	0.63–1	14	0.12	0.25	0.25	0.37	0.55	②	②	2	1/2		XTPB001BC1	
1.6	1–1.6	22	0.25	0.55	0.55	0.75	1.1	②	②	3/4	3/4		XTPB1P6BC1	
2.5	1.6–2.5	35	0.37	0.75	1.1	1.1	1.5	1/2	1/2	1	1-1/2		XTPB2P5BC1	
4	2.5–4	56	0.75	1.5	1.5	2.2	3	3/4	3/4	2	3		XTPB004BC1	
6.3	4–6.3	88	1.1	2.2	3	3	4	1	1-1/2	3	5		XTPB6P3BC1	
10	6.3–10	140	2.2	4	4	4	7.5	3	3	7-1/2	10		XTPB010BC1	
12	8–12	168	3	5.5	5.5	5.5	11	3	3	7-1/2	10		XTPB012BC1	
16	10–16	224	4	7.5	9	9	12.5	3	5	10	10		XTPB016BC1	
20	16–20	280	5.5	9	11	12.5	15	5	—	—	15		XTPB020BC1	
25	20–25	350	5.5	12.5	12.5	15	22	—	7-1/2	15	20		XTPB025BC1	

Notes

Single-phasing sensitivity to IEC/EN 60947-4-1, VDE 0660 Part 102.

Can be snap-fit to IEC/EN 60715 top-hat (DIN) with 7.5 or 15 mm height.

Service Factor (SF)—Setting I_r of current scale in dependence of load factor:

$$SF = 1.15 \rightarrow I_r = 1 \times I_{n \text{ mot}}$$

$$SF = 1 \rightarrow I_r = 0.9 \times I_{n \text{ mot}}$$

For manual motor protective circuit breaker switching capacity, see **Page V5-T1-181**.

① Select manual motor protectors by full load amperes. Maximum motor ratings (kW, hp) are for reference only.

② In this range, calculate motor rating according to rated current. Specified values to NEC 430.6(A)(1).