

## 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 <sup>①</sup>					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						
			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:

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

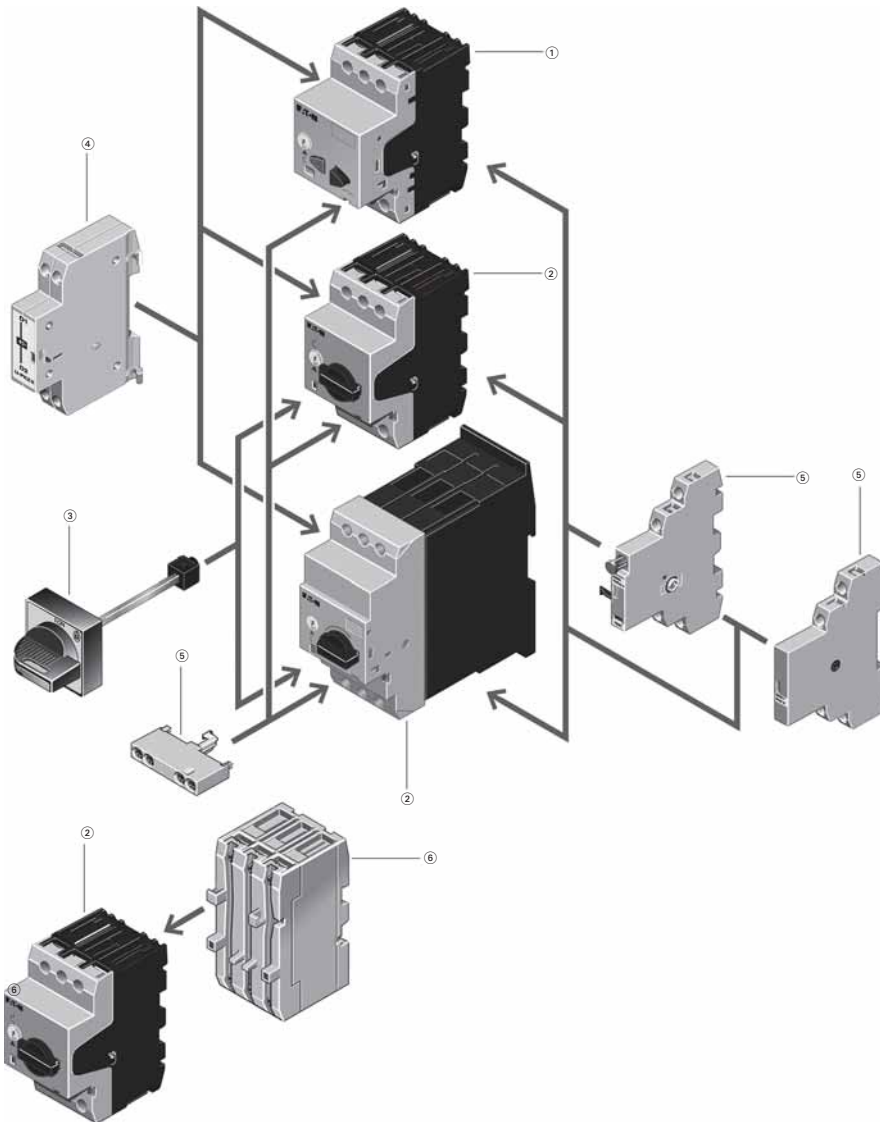
$$SF = 1 \rightarrow I_r = 0.9 \times I_{n \text{ mot}}$$

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				
			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).