

# EATON CONTACTOR & STARTER SELECTION

(BASED ON UL/CSA RATINGS)



Minimum wire size		Motor full load current (NEC)—amps
Branch circuit protection	Copper (75°C)—THW, THHN, THWN, XHHW/fuse (breaker)—AWG	Time delay (dual elem.) fuse—amps Circuit breaker trip rating—amps Instantaneous trip circuit breaker HMCP—amps
Contactor	Contactor catalog number—XTC	Contactor frame size
Starter with bi-metallic overload ①	Starter catalog number—XTA	Overload range—amps
Starter with electronic overload ①	Starter catalog number—XTA	Overload range—amps
Manual motor protector and combination motor controller ②	Manual motor protector (MMP) ③—XTPR Manual motor protector (MMP) frame size Manual motor controller (MMP + contactor)—XTSC UL508 Type F combination motor controller—XTFC	Overload range—amps

460V

**Contactor & Starter Selection (based on UL/CSA Ratings):**  
Set motor horsepower to window and read motor circuit information under the proper line voltage. The underscore ( \_ ) indicates a magnet coil suffix is required to complete the part number. See the Coil Voltage Selection Table for suffix.

**Notes:**  
① Select overload size using motor nameplate current ratings for full motor protection and conformance to NEC 430.6.  
② Select Manual Motor Protectors, Manual Motor Controllers, and Combination Motor Controllers by full load amperes. Motor ratings (hp) are for reference only.  
③ Requires 300:5 CT kit (Catalog Number ZEB-XCT300).  
④ Requires 600:5 CT kit (Catalog Number ZEB-XCT600).  
⑤ Rated as UL508 Type E Device with Line Side Adapter (catalog number: Frame B—XTPAXLSA, Frame D—XTPAXLSAD)  
⑥ Not available as a factory-assembled starter. Select Contactor and Overload Relay separately.

## THREE-PHASE MOTOR HP

Minimum wire size		Motor full load current (NEC)—amps
Branch circuit protection	Copper (75°C)—THW, THHN, THWN, XHHW/fuse (breaker)—AWG	Time delay (dual elem.) fuse—amps Circuit breaker trip rating—amps Instantaneous trip circuit breaker HMCP—amps
Contactor	Contactor catalog number—XTC	Contactor frame size
Starter with bi-metallic overload ①	Starter catalog number—XTA	Overload range—amps
Starter with electronic overload ①	Starter catalog number—XTA	Overload range—amps
Manual motor protector and combination motor controller ②	Manual motor protector (MMP) ③—XTPR Manual motor protector (MMP) frame size Manual motor controller (MMP + contactor)—XTSC UL508 Type F combination motor controller—XTFC	Overload range—amps

575V

### Coil Voltage Selection Table

Frame A–M	Suffix Code
110V 50 Hz, 120V 60 Hz	A
220V 50 Hz, 240V 60 Hz	B
415V 50 Hz, 480V 60 Hz ①	C
230V 50 Hz	F
380V 50 Hz, 440V 60 Hz	L
24V 50/60 Hz	T
24 Vdc	TD
<b>Frame N</b>	
110–250 Vac/Vdc	A

① Use suffix code L for 415V for Frame G.

See reverse side for motor protection and accessories.

Side 3

# EATON CONTACTOR SELECTION

(BASED ON IEC RATINGS)



**Contactor Selection (based on IEC Ratings):**  
Set desired amp range to window for the desired application and voltage and read contactor catalog number above. The underscore ( \_ ) indicates a magnet coil suffix is required to complete the part number. See the Coil Voltage Selection Table for suffix.

See reverse side for coil voltage suffix codes.

### Contactor Auxiliary Contacts

Frame B–C (Front)		
2NO	XTCEXFAC20	
1NO-1NC	XTCEXFAC11	
2NC	XTCEXFAC02	
4NO	XTCEXFAC40	
3NO-1NC	XTCEXFAC31	
2NO-2NC	XTCEXFAC22	
4NC	XTCEXFAC04	
<b>Frame C (Side)</b>	1NO-1NC	XTCEXSCC11
<b>Frame D–G (Front)</b>	2NO	XTCEXFBG20
	1NO-1NC	XTCEXFBG11
	2NC	XTCEXFBG02
	4NO	XTCEXFBG40
	3NO-1NC	XTCEXFBG31
	2NO-2NC	XTCEXFBG22
	4NC	XTCEXFBG04
<b>Frame D–R (Side)</b>	1NO-1NC	XTCEXSBN11

Contactor Catalog Number—XTC		
AC-1	At 40°C (I <sub>th</sub> ) open	A
	At 60°C (I <sub>th</sub> ) open	A
AC-3	220/230V	A
		kW
	380/400V	A
		kW
AC-4	415V	A
		kW
	660/690V	A
		kW
AC-4	1000V	A
		kW
	220/230V	A
		kW
	380/400V	A
		kW
	415V	A
		kW
	660/690V	A
		kW
	1000V	A
		kW

### Contactor Accessories

Mechanical Interlocks		
Frame B		XTCEXMLB
Frame C		XTCEXMLC
Frame D		XTCEXMLD
Frame F–G		XTCEXMLG
Frame L–M		XTCEXMLM
Frame N		XTCEXMLN
Reversing Link Kits		
Frame B		XTCEXRLB
Frame C		XTCEXRLC
Frame D		XTCEXRLD
Frame F–G		XTCEXRLG
On-Delay Electronic Timers (120 Vac)		
Frame B–C	0.05–100 sec	XTCEXTEEC11A
Off-Delay Electronic Timers (120 Vac)		
Frame B–C	0.05–1 sec	XTCEXTEED1C11A
Frame B–C	0.5–10 sec	XTCEXTEED10C11A
Frame B–C	5–100 sec	XTCEXTEED100C11A
Suppressor with Integrated LED (130–240 Vac)		
Frame B		XTCEXVSLBB
Frame C		XTCEXVSLCB
Frame D–F		XTCEXVSLFB

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Side 4

# EATON IEC PROTECTION SELECTION



**Overload Relay and MMP Selection Instructions:**  
Set desired amp range to window and read overload information beside the proper frame size. Actual overload amp setting range may not exactly match target overload current setting. Actual overload amp setting range is listed for each part number.

**Notes:**  
① For use with 9–15A contactor only.  
② For use with 12–15A contactor only.  
③ For use with 25–32A contactor only.  
④ For use with 50–65A contactor only.  
⑤ For use with 65A contactor only.  
⑥ For use with 225–250A contactor only.

Bi-Metallic Overload Relays	
Frame B for use with XTCE _ _ _ B contactor	Target Overload Current Setting (A) Catalog number—XTOB Overload range—amps
Frame C for use with XTCE _ _ _ C contactor	Target Overload Current Setting (A) Catalog number—XTOB Overload range—amps
Frame D for use with XTCE _ _ _ D contactor	Target Overload Current Setting (A) Catalog number—XTOB Overload range—amps
Frame G for use with XTCE _ _ _ (F or G) contactor	Target Overload Current Setting (A) Catalog number—XTOB Overload range—amps
Frame L for use with XTC (E or S) _ _ _ L contactor	Target Overload Current Setting (A) Catalog number—XTOT Overload range—amps
Standalone CT	Target Overload Current Setting (A) Catalog number—XTOT
Electronic Overload Relays	
Frame B for use with XTCE _ _ _ B contactor	Target Overload Current Setting (A) Catalog number—XTOE
Frame C for use with XTCE _ _ _ C contactor	Target Overload Current Setting (A) Catalog number—XTOE
Frame D for use with XTCE _ _ _ D contactor	Target Overload Current Setting (A) Catalog number—XTOE
Frame G for use with XTCE _ _ _ F contactor	Target Overload Current Setting (A) Catalog number—XTOE
Frame G for use with XTCE _ _ _ G contactor	Target Overload Current Setting (A) Catalog number—XTOE
Standalone CT type overload	Target Overload Current Setting (A) CT kit catalog number
Manual Motor Protectors	
Pushbutton style	Target Overload Current Setting (A) Frame B catalog number—XTPB
Rotary style	Target Overload Current Setting (A) Frame B catalog number—XTPR Frame D catalog number—XTPR

### Overload Relay Accessories

DIN Rail/Panel Mount Adapter		
XTOB...CC1		XTOBXDINC
XTOB...CC1		XTOBXDIND
Reset Bar Kit		
XTOE...		ZEB-XRB
Remote Reset		
XTOE...	24 Vdc	C440-XCOM
XTOE...	24 Vac	ZEB-XRR-24
XTOE...	120 Vac	ZEB-XRR-120

### Manual Motor Protector Accessories

IP65 Rotary Handle Mechanisms (Complete Kits)		
Black color		XTPAXRHM165B
Red/yellow color		XTPAXRHM265RY
Front-Mount Auxiliary Contacts		
Frame B, D	1NO-1NC	XTPAXFA11
Frame B, D	1NO	XTPAXFA10
Line-Side Adapter (UL508 Type E/F)		
Frame B		XTPAXLSA
Frame D		XTPAXLSAD
Combination Connection Kits		
XTPR...B + XTCE...B		XTPAXTPCB
XTPR...B + XTCE...C		XTPAXTPCC
XTPR...D + XTCE...D		XTPAXTPCD
3PH Commoning Links (w/o Side Accessories)		
Frame B	3 MMPS	XTPAXCLKA3
Frame B	5 MMPS	XTPAXCLKA5
Frame D	3 MMPS	XTPAXCLKA3D
Frame D	4 MMPS	XTPAXCLKA4D

For a complete list of accessories, please see Volume 5—Motor Control and Protection, CA0810006E.

Side 1

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200V

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230V

### Coil Voltage Selection Table

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220V 50 Hz, 240V 60 Hz	B
415V 50 Hz, 480V 60 Hz ①	C
230V 50 Hz	F
380V 50 Hz, 440V 60 Hz	L
24V 50/60 Hz	T
24 Vdc	TD
<b>Frame N</b>	
110–250 Vac/Vdc	A

① Use suffix code L for 415V for Frame G.

See reverse side for motor protection and accessories.

Side 2