

IEC Non-Metallic Enclosure—Contactors and Starters

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Non-Metallic Enclosure—Contactors and Starters

Product Description

XT non-metallic 4X starters are the latest addition to our broad line of pre-engineered solutions that make it easy to get an enclosed starter fast! These sturdy, uncomplicated starters are economical, but built to last. Components are all housed in a dust-tight, rain-tight, oil-tight, water-tight and corrosion resistant polycarbonate insulated enclosure. In most cases, **XT** non-metallic 4X starters are available from stock for next day delivery.

Reliable Protection

Each starter features an Eaton **XT** IEC thermal overload relay. Fourteen overload sizes are available to complete the starter, providing adjustable

settings for 0.1 to 32 full load amps. Because of its direct mount design, the **XT** relay and resulting starter command a very small footprint.

Clever, Convenient Design to 25 hp

Six different base models (single- and three-phase) are available, ranging from fractional to 25 hp units (at 575 V). This allows you to closely match the starter to your application.

Each starter is equipped with a telescopic base-mount for the pilot device contact blocks. This eliminates all wiring between the cover and starter base, making commissioning and troubleshooting a snap.

Additional Reference

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Features and Benefits

- Single- and three-phase enclosed starters to 25 hp (at 575 V)
- Rugged IP65 polycarbonate enclosure equivalent to NEMA 1, 12, 13, 3R and 4X environmental protection
- All starters feature the modern **XT** contactor family from Eaton in your choice of control voltage from 24 Vac to 600 Vac
- Class 10 motor protection is provided by adjustable bimetal overload relays
- Standard starters feature START/STOP double pushbuttons and a RESET selected from our rugged M22 pilot device line
- Other control options include OFF–ON or HAND–0–AUTO selector switches, with or without pilot light
- All starters use electrical operators to energize and de-energize the starter, providing longer component lifespan and the option for two-wire control
- 5 hp starters are only six inches high; 25 hp starters are less than 10 inches high

Standards and Certifications

Note: See **Tab 17** for additional information on standards and certifications that apply to all enclosed control products.

- UL Listed/CSA/IEC

Product Configuration Overview

Starter sizes (mm)

- To 5 hp (at 575 V): 160 x 100 x 145 (L x W x D)
- To 20 hp (at 575 V): 200 x 120 x 160 (L x W x D)
- To 25 hp (at 575 V): 240 x 160 x 160 (L x W x D)

Phases

- Available in single- and three-phase

Contactors

- From miniature to 32 amps

Voltages

- 50 Hz: 110 V, 23 V, 415 V
- 60 Hz: 24 V, 120 V, 208 V, 240 V, 480 V, 600 V

Pilot devices

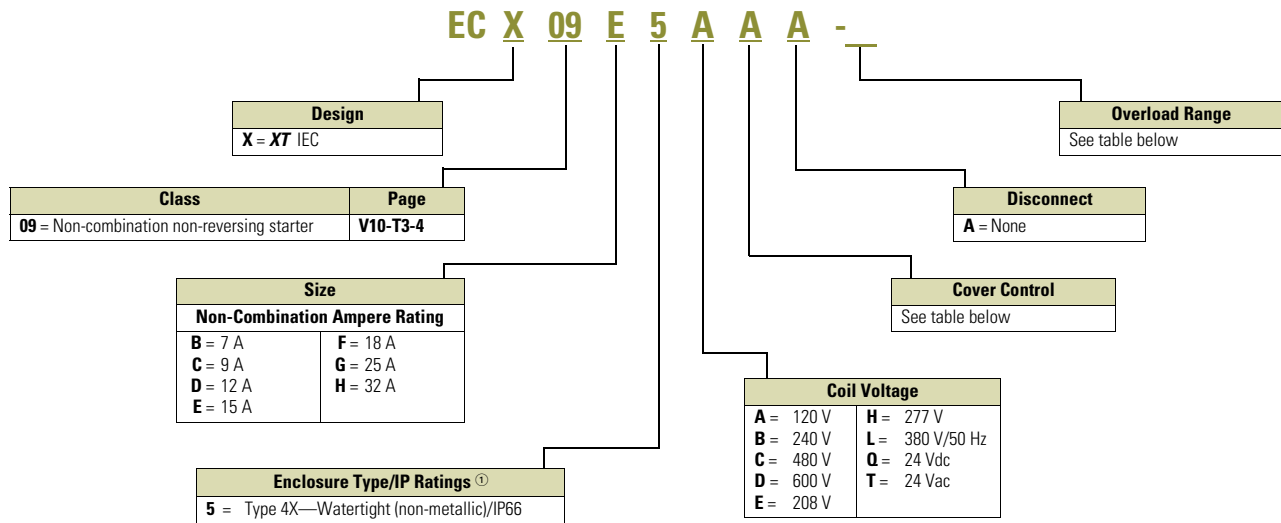
- START/STOP double-pushbutton
- ON–OFF selector switch
- HAND–0–AUTO selector switch

Illumination options

- Red light 85–264 Vac
- Red light 12–30 Vac/Vdc
- Without illumination

Catalog Number Selection

XT IEC Line Non-Metallic Enclosed Control



XTOB Overload Relays for Enclosed XT

FLA Ratings	Size B–E 7–15 A	Size F–H 18–32 A
0.1–0.16	A	A
0.16–0.24	B	B
0.24–0.4	C	C
0.4–0.6	D	D
0.6–1	E	E
1–1.6	F	F
1.6–2.4	G	G
2.4–4	H	H

FLA Ratings	Size B–E 7–15 A	Size F–H 18–32 A
4–6	I	I
6–10	J	J
9–12	K	—
10–16	—	L
12–16	L	—
16–24	—	M
24–32	—	N

XTOE Electronic Overload Relays for Enclosed XT

FLA Ratings	Size B–E 7–15 A	Size F–H 18–32 A
0.33–1.65	R63/A	R63/A
1–5	R63/B	R63/B
4–20	R63/C	R63/C
9–45	—	R63/D

Cover Control Options



Cover Control Options

Description	Position 9 Control Code
No cover mounted pilot devices	A
START/STOP pushbuttons	B
With red RUN pilot light	C
HAND/OFF/AUTO selector switch	H
With red RUN pilot light	J
ON/OFF selector switch	S
With red RUN pilot light	T

Note

① See **Tab 1** for enclosure type/IP rating cross-reference.

Product Selection

CI-K Basic Enclosures

CI-K Basic Enclosures ^{①②}

Dimensions in Inches (mm)



Width	Height	External Depth	Internal Depth	Internal Mounting Type	Pkg. Qty.	Catalog Number
3.94 (100.0)	6.30 (160.0)	3.94 (100.0)	2.87 (73.0)	With mounting rail	1	CI-K2X-100-TS-NA ^③
			3.11 (79.0)	With mounting plate		CI-K2X-100-M-NA ^③
			5.71 (145.0)	With mounting rail		CI-K2X-145-TS-NA ^③
			4.88 (124.0)	With mounting plate		CI-K2X-145-M-NA ^③
4.72 (120.0)	7.87 (200.0)	4.92 (125.0)	3.66 (93.0)	With mounting rail	1	CI-K3X-125-TS-NA ^④
			3.86 (98.0)	With mounting plate		CI-K3X-125-M-NA ^④
			6.30 (160.0)	With mounting rail		CI-K3X-160-TS-NA ^④
			5.24 (133.0)	With mounting plate		CI-K3X-160-M-NA ^④
6.30 (160.0)	9.45 (240.0)	6.30 (160.0)	5.04 (128.0)	With mounting rail	1	CI-K4X-160-TS-NA ^④
			5.24 (133.0)	With mounting plate		CI-K4X-160-M-NA ^④
7.87 (200.0)	11.02 (280.0)	6.30 (160.0)	5.04 (128.0)	With mounting rail	1	CI-K5X-160-TS-NA ^④
			5.24 (133.0)	With mounting plate		CI-K5X-160-M-NA ^④

Class ECX09—Non-Metallic Non-Combination Non-Reversing Contactor ONLY

	Maximum hp ^⑤				Type 4X/IP66	Component
Amps	Motor Voltage ^⑥	Single-Phase	Three-Phase	Coil Voltage at 60 Hz ^⑦	Catalog Number	Catalog Number
Size B						
7	115	1/4	—	120	ECX09B5AAA	XTCE007B10A
	208	3/4	1-1/2	208	ECX09B5EAA	XTCE007B10E
	230	1	2	240	ECX09B5BAA	XTCE007B10B
	380	—	3	380/50 Hz	ECX09B5LAA	XTCE007B10L
	460	—	3	480	ECX09B5CAA	XTCE007B10C
	575	—	5	600	ECX09B5DAA	XTCE007B10D
Size C						
9	115	1/2	—	120	ECX09C5AAA	XTCE009B10A
	208	1	2	208	ECX09C5EAA	XTCE009B10E
	230	1-1/2	3	240	ECX09C5BAA	XTCE009B10B
	380	—	5	380/50 Hz	ECX09C5LAA	XTCE009B10L
	460	—	5	480	ECX09C5CAA	XTCE009B10C
	575	—	7-1/2	600	ECX09C5DAA	XTCE009B10D
Size D						
12	115	1/2	—	120	ECX09D5AAA	XTCE012B10A
	208	1-1/2	3	208	ECX09D5EAA	XTCE012B10E
	230	2	3	240	ECX09D5BAA	XTCE012B10B
	380	—	5	380/50 Hz	ECX09D5LAA	XTCE012B10L
	460	—	7-1/2	480	ECX09D5CAA	XTCE012B10C
	575	—	10	600	ECX09D5DAA	XTCE012B10D
Size E						
15	115	3/4	—	120	ECX09E5AAA	XTCE015B10A
	208	2	3	208	ECX09E5EAA	XTCE015B10E
	230	2	3	240	ECX09E5BAA	XTCE015B10B
	380	—	5	380/50 Hz	ECX09E5LAA	XTCE015B10L
	460	—	7-1/2	480	ECX09E5CAA	XTCE015B10C
	575	—	10	600	ECX09E5DAA	XTCE015B10D

Notes

- ① Enclosure base RAL 9005, black/enclosure top only RAL 7035. Light gray.
 ② Degree of protection—IEC: IP65; UL/CSA: Type 1, 3R, 4X, 12, 13—indoor and outdoor use.
 ③ CI-K2X_: 4 x 1/2 inch knockouts.
 ④ CI-K3X_, CI-K4X_, CI-K5X_: Smooth overall with sharp corners.
 ⑤ 1 hp = 0.746 kW.
 ⑥ Contact factory for other voltage options.
 ⑦ Voltage is listed at 60 Hz unless otherwise noted. Other voltages available upon request.

Class ECX09—Non-Metallic Non-Combination Non-Reversing Contactor ONLY, continued

	Maximum hp ^①			Coil Voltage	Type 4X/IP66	Component
Amps	Motor Voltage ^②	Single-Phase	Three-Phase	at 60 Hz ^③	Catalog Number	Catalog Number
Size F						
18	115	2	—	120	ECX09F5AAA	XTCE018C10A
	208	2	5	208	ECX09F5EAA	XTCE018C10E
	230	3	5	240	ECX09F5BAA	XTCE018C10B
	380	—	7-1/2	380/50 Hz	ECX09F5LAA	XTCE018C10L
	460	—	10	480	ECX09F5CAA	XTCE018C10C
	575	—	15	600	ECX09F5DAA	XTCE018C10D
Size G						
25	115	2	—	120	ECX09G5AAA	XTCE025C10A
	208	3	7-1/2	208	ECX09G5EAA	XTCE025C10E
	230	5	7-1/2	240	ECX09G5BAA	XTCE025C10B
	380	—	10	380/50 Hz	ECX09G5LAA	XTCE025C10L
	460	—	15	480	ECX09G5CAA	XTCE025C10C
	575	—	20	600	ECX09G5DAA	XTCE025C10D
Size H						
32	115	3	—	120	ECX09H5AAA	XTCE032C10A
	208	5	10	208	ECX09H5EAA	XTCE032C10E
	230	5	10	240	ECX09H5BAA	XTCE032C10B
	380	—	15	380/50 Hz	ECX09H5LAA	XTCE032C10L
	460	—	20	480	ECX09H5CAA	XTCE032C10C
	575	—	25	600	ECX09H5DAA	XTCE032C10D

Notes

① 1 hp = 0.746 kW.

② Contact factory for other voltage options.

③ Voltage is listed at 60 Hz unless otherwise noted. Other voltages available upon request.