

XT IEC Contactors



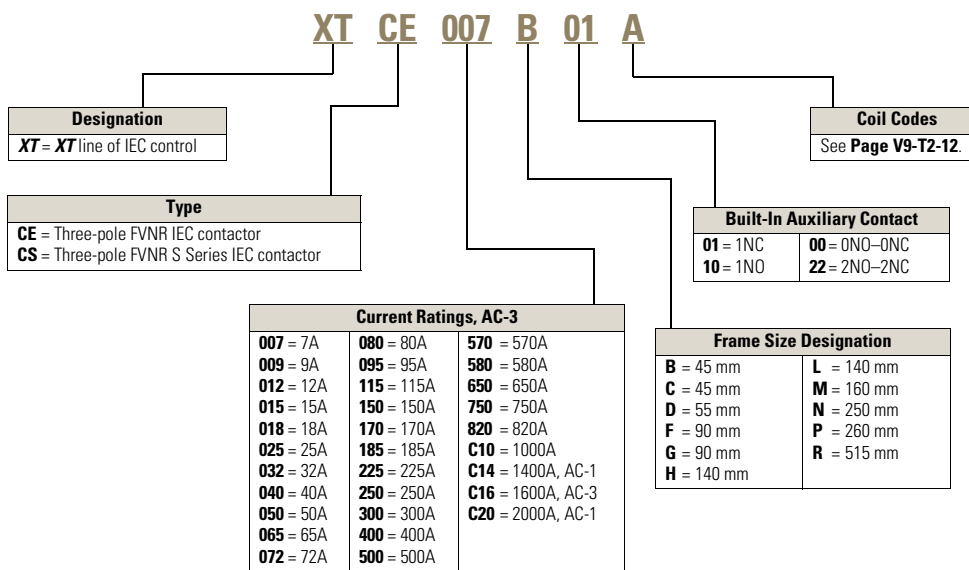
Features

- Reversing or non-reversing contactors
- AC-3 contactor ratings to 1600A and AC-1 contactor ratings to 2000A
- Panel or DIN rail mounting to 65A
- IP20 finger and back-of-hand proof
- Built-in NO or NC auxiliary contacts to 32A
- Built-in surge suppression on DC coils XTCE Frame B-G and AC or DC coils on XTCE Frame L-R
- Can be used with **XT** or C396 overload relays
- Can be used with XTPR MMPs for manual motor controllers or UL508 Type F combination motor controllers

Catalog Number Selection

XT IEC Contactors

Contactors



2.1

Motor Control and Protection

Contactors

Product Selection

2

Full Voltage Non-Reversing Three-Pole Contactors, Frames B–G

UL/CSA Ratings	IEC Ratings										Maximum kW Ratings AC-3 Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Catalog Number—Screw Terminals ^{①②}
	UL General Purpose Amp Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				AC-3 I _e (A)	AC-1 (40°C) I _e = I _{th} (A)	220/230V	380/400V	415V	660/690V		
Frame B																
20	1/4	3/4	1	1-1/2	2	3	5	7	22	2.2	3	4	3.5	1NO	XTCE007B10_	
20	1/4	3/4	1	1-1/2	2	3	5	7	22	2.2	3	4	3.5	1NC	XTCE007B01_	
20	1/2	1	1-1/2	3	3	5	7-1/2	9	22	2.5	4	5.5	4.5	1NO	XTCE009B10_	
20	1/2	1	1-1/2	3	3	5	7-1/2	9	22	2.5	4	5.5	4.5	1NC	XTCE009B01_	
20	1	2	2	3	3	10 ^③	10	12	22	3.5	5.5	7	6.5	1NO	XTCE012B10_	
20	1	2	2	3	3	10 ^③	10	12	22	3.5	5.5	7	6.5	1NC	XTCE012B01_	
20	1	2	3	5	5	10 ^③	10	15.5	22	4	7.5	8	7	1NO	XTCE015B10_	
20	1	2	3	5	5	10 ^③	10	15.5	22	4	7.5	8	7	1NC	XTCE015B01_	
Frame C																
40	2	2	3	5	5	10 ^③	15	18	40	5	7.5	10	11	1NO	XTCE018C10_	
40	2	2	3	5	5	10 ^③	15	18	40	5	7.5	10	11	1NC	XTCE018C01_	
40	2	3	5	7-1/2	10	15	20	25	45	7.5	11	14.5	14	1NO	XTCE025C10_	
40	2	3	5	7-1/2	10	15	20	25	45	7.5	11	14.5	14	1NC	XTCE025C01_	
40	3	5	5	10	10	20	25	32	45	10	15	18	17	1NO	XTCE032C10_	
40	3	5	5	10	10	20	25	32	45	10	15	18	17	1NC	XTCE032C01_	
Frame D																
63	3	5	7-1/2	10	15	30	40	40	60	12.5	18.5	24	23	—	XTCE040D00_	
80	3	7-1/2	10	15	20	40	50	50	80	15.5	22	30	30	—	XTCE050D00_	
88	5	10	15	20	25	50	60	65	98	20	30	39	35	—	XTCE065D00_	
88	5	10	15	20	25	50	60	72	98	22	37	41	35	—	XTCE072D00_	
Frame F																
125	7-1/2	15	15	25	30	60	75	80	110	25	37	48	63	—	XTCE080F00_	
125	7-1/2	15	15	25	40	75	75	95	130	30	45	57	75	—	XTCE095F00_	
Frame G																
160	10	25	25	40	50	100	100	115	160	37	55	70	90	—	XTCE115G00_	
180	10	25	30	40	60	125	125	150	190	48	75	91	96	—	XTCE150G00_	
225 ^④	10	25	30	40	60	125	125	170	225	52	90	100	96	—	XTCE170G00_	

Notes

The 7–32A XTCE contactors have positively driven contacts between the integrated auxiliary contact and the auxiliary contact module as well as within the auxiliary contact modules.

The 40–65A XTCE contactors have positively driven contacts within the auxiliary contact module. Six auxiliary contacts are possible with a combination of side mounted and front mount auxiliary contacts.

DC operated contactors (Frames B–G, 7–150A) have a built-in suppressor circuit.

Frames B–C contactors with 1NC built-in auxiliary are mirror contacts (XTCE...B01_–XTCE...C01_).

① Underscore (_) indicates magnet coil suffix required. See **Page V9-T2-12**.

② For spring cage terminals, insert C after the fourth digit of the catalog number. Example: XTCE C 007B10A.

For 7–12A XTCEC contactors, the power, auxiliary and coil terminals are spring cage.

For 18–32A XTCEC contactors, the auxiliary and coil terminals are spring cage.

For 40–150A XTCEC contactors, the coil terminals only are spring cage.

③ For electrical life contactor application data, see Volume 5—Motor Control and Protection, CA08100006E, Tab 1.

④ For 180–225A, use 2 x 3/0 AWG wire.

Full Voltage Non-Reversing Three-Pole Contactors, Frames H–R

UL General Purpose Amp Rating	UL/CSA Ratings				IEC Ratings		Maximum kW Ratings AC-3 Three-Phase Motors 50–60 Hz					Auxiliary Contacts	Catalog Number ②
	Three-Phase hp Ratings	200V	230V	460V	575V	AC-3 I _e (A)	AC-1 (40°C) I _e = I _{th} (A)	220/230V	380/400V	415V	660/690V ①		
Frame H – Electronic Coil													
250	50	60	125	150	185	337	55	90	—	140	108	2NO-2NC	XTCE185H22_
250	60	75	150	200	225	386	70	110	—	215	108	2NO-2NC	XTCE225H22_
Frame L – Standard Coil (110/120V, 230/240 Vac Coil Only)													
300	75	100	200	250	250	429	75	132	148	240	108	2NO-2NC	XTCE250L22_
350	100	125	250	300	300	490	90	160	—	195	132	2NO-2NC	XTCE300L22_
Frame L – Electronic Coil													
300	75	100	200	250	250	429	75	132	148	240	108	2NO-2NC	XTCE250L22_
350	100	125	250	300	300	490	90	160	—	195	132	2NO-2NC	XTCE300L22_
Frame M – Standard Coil (110/120V, 230/240 Vac Coil Only)													
450	125	150	300	400	400	612	125	200	240	344	132	2NO-2NC	XTCE400M22_
550	150	200	400	500	500	857	155	250	300	344	132	2NO-2NC	XTCE500M22_
Frame M – Electronic Coil													
450	125	150	300	400	400	612	125	200	240	344	132	2NO-2NC	XTCE400M22_
550	150	200	400	500	500	857	155	250	300	344	132	2NO-2NC	XTCE500M22_
Frame N – Electronic Coil													
630	200	200	400	600	580	980	185	315	348	560	600	2NO-2NC	XTCE580N22_ ③
700	200	250	500	600	650	1041	205	355	390	630	600	2NO-2NC	XTCE650N22_ ③
800	250	300	600	700	750	1102	240	400	455	720	800	2NO-2NC	XTCE750N22_ ③
850	290	350	700	860	820	1225	260	450	500	750	800	2NO-2NC	XTCE820N22_ ③
1100	350	420	850	980	1000	1225	315	560	610	1000	1000	2NO-2NC	XTCEC10N22_ ③
Frame P – Electronic Coil													
1400	—	—	—	—	—	1714	—	—	—	—	—	2NO-2NC	XTCEC14P22_ ③
Frame R – Electronic Coil													
1600	560	640	1200	1300	1600	2200	500	900	900	1600	1700	2NO-2NC	XTCEC16R22_ ③
2000	—	—	—	—	—	2450	—	—	—	—	—	2NO-2NC	XTCEC20R22_ ③

Contactor Application Data

Catalog Prefix	Electrical Life (Operations) for 10 hp, 480V (14.2A) Applications
XTCE012B	1 million
XTCE015B	1.2 million
XTCE018C	2 million

Notes

AC and DC operated contactors have a built-in suppressor circuit (Frames L–R, 185–2000A).

① For 185–500A contactors at 660/690V or 1000V: Do not reverse directly.

② Underscore (_) indicates magnet coil suffix required. See Page V9-T2-12.

③ When operating the 580–2000A XTCE contactors with frequency inverters, the suppressor on the load side must be removed. The load side suppressor must also be removed when performing a high-voltage test—see Pub51204, Pub51209.

Full Voltage Non-Reversing Three-Pole Contactors—Contact Sequence (Circuit Symbols), Standard Offering

Contactor Frame	Auxiliary Contacts	Contact Sequence
B–C	1NO	A1 1 3 5 13 A2 2 4 6 14
B–C	1NC	A1 1 3 5 21 A2 2 4 6 22
D–G	—	A1 1 3 5 A2 2 4 6
L–R	2NO-2NC	A1 1 3 5 13 21 31 43 A2 2 4 6 14 22 32 44

Magnet Coil Suffix

Coil Voltage	Suffix Code
Frames B–F	
110V 50 Hz, 120V 60 Hz	A
220V 50 Hz, 240V 60 Hz	B
24V 50/60 Hz	T
24 Vdc	TD
415V 50 Hz, 480V 60 Hz	C
550V 50 Hz, 600V 60 Hz	D
208V 60 Hz	E
Frame G	
100–120V 50/60 Hz	A
190–240V 50/60 Hz	B
24V 50/60 Hz	T
24–27 Vdc	TD
480–500V 50/60 Hz	C

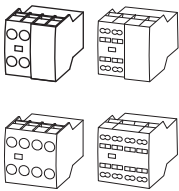




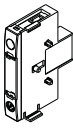

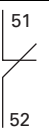
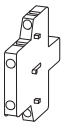

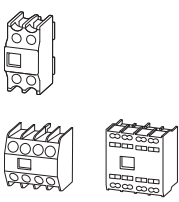




Coil Voltage	Suffix Code
Frame H	
100–120V 50/60 Hz	A
190–240V 50/60 Hz	B
480–500V 50/60 Hz	C
24–27 Vdc	TD
Frames L–M, S-Series	
110–120V 50/60 Hz	A
220–240V 50/60 Hz	B
Frame N	
110–250V 40–60 Hz/DC	A
250–500V 40–60 Hz	C
24–48 Vdc	TD
Frames P–R	
220–250V 50–60 Hz/DC	B

XTCR Reversing Contactor Components

Qty.	Frame	B	C	D	F	G
2	Contactors	XTCE...B01_	XTCE...B01_	XTCE...D00_	XTCE...F00_	XTCE...G00_
2	Auxiliary contact	XTCEXFAC20	XTCEXFAC20	XTCEXFBG11	XTCEXFBG11	XTCEXFBG11
1	Mechanical interlock	XTCEXMLB	XTCEXMLC	XTCEXMLD	XTCEXMLG	XTCEXMLG
1	Reversing link kit	XTCEXRLB	XTCEXRLC	XTCEXRLD	XTCEXRLG	XTCEXRLG

Accessories

Auxiliary Contacts—Frames B–G

		Conventional Thermal Current, Open at 60°C $I_{th} = I_{th}$, AC-1 in Amps	Poles	Contact Configuration	Circuit Symbol	Pkg. Qty.	Catalog Number—Screw Terminals
Frames B–C		Frames B–C—Front (Top) Mount ①					
	16	2	2NO		5	XTCEXFAC20	
	16	2	1NO-1NC		5	XTCEXFAC11	
	16	4	4NO		5	XTCEXFAC40	
	16	4	2NO-2NC		5	XTCEXFAC22	
Frame B		Frame B—Side Mount ①②					
	16	1	1NO		1	XTCEXSAB10	
	16	1	1NC		1	XTCEXSAB01	
Frame C		Frame C—Side Mount ①					
	10	2	1NO-1NC		1	XTCEXSAC11 ①	
Frames D–G		Frames D–G ③					
	16	2	2NO		5	XTCEXFBG20	
	16	2	1NO-1NC		5	XTCEXFBG11	
	16	4	4NO-0NC		5	XTCEXFBG40	
	16	4	2NO-2NC		5	XTCEXFBG22	

Notes

Interlocked opposing contacts, to IEC/EN 60947-5-1 Annex L (positively driven), within the auxiliary contact modules (not NO [early make] and NC [late break] contacts) and for the built-in auxiliary contacts of the XTCE007_–XTCE032_ Auxiliary break contact can be used as mirror contact to IEC/EN 60947-4-1 Annex F (not NC [late break] contact). No auxiliary contacts can be fitted between two contactors.

① Frames B–C cannot use both a side AND a top mount auxiliary contact at the same time.

② Can be mounted to the left side of contactor only.

Cannot be used in combination with front (top) mount auxiliary contacts or mechanical interlocks.

③ For Frame D, six auxiliary contacts maximum (can be a combination of side and top mount units).

Side Mount Auxiliary Contacts—Frames D–R, 40–2000A

Conventional Free Air

Thermal Current, $I_{th} = I_e$, AC-1 in Amps

Poles

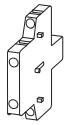
Contact Configuration

Circuit Symbol

Pkg. Qty.

Catalog Number—Screw Terminals

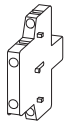
Frames D–R



Frame D–R ①②

10	2	1NO-1NC		1	XTCEXSBN11
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Frames H–R



Frames H–R (Screw Mount) ②

10	2	1NO-1NC		1	XTCEXSBR11
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Mechanical Interlock ③

For Use with ...

Package Qty.

Catalog Number

XTCEXMLB

XTCE007B–XTCE015B, XTCE020B

5

XTCEXMLB



XTCEXMLC

XTCE018C–XTCE032C

1

XTCEXMLC

XTCE032C–XTCE045C

XTCE040D–XTCE072D

XTCE063D–XTCE080D

1

XTCEXMLD

XTCE080F–XTCE170G

1

XTCEXMLG ④

XTCE125G–XTCE200G



XTCEXMLM

XTCE185H–XTCE570M

1

XTCEXMLM

XTCE580N–XTCEC10N

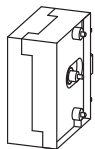
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XTCEXMLN ④

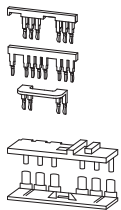
XTCE500M–XTCE570M with XTCE500N–XTCEC10N

1

XTCEXMLNM ④



Reversing Link Kits



Reversing Link Kits

For Use with ...

Package Qty.

Catalog Number

XTCE007B–XTCE015B

1

XTCEXRLB ⑤

XTCE018C–XTCE032C

1

XTCEXRLC

XTCE040D–XTCE065D

1

XTCEXRLD

XTCE080F–XTCE150G

1

XTCEXRLG

Notes

- ① For Frame D, six auxiliary contacts maximum (can be a combination of side and top mount units).
- ② For Frames F–R, eight auxiliary contacts maximum (can be a combination of side and top mount units).
- ③ For two contactors with AC or DC operated magnet system which are horizontally or vertically mounted. For B–G frames, mechanical lifespan is 2.5 x 10⁶ operations and the distance between contactors is 0 mm. For L–N frames, mechanical lifespan is 5 x 10⁶ operations and no auxiliary contact can be mounted between the mechanical interlock and the contactor—the distance between contactors is 15 mm.
- ④ XTCEXMLG, XTCEXMLN and XTCEXMLNM consist of an interlock element and mounting plate.
- ⑤ Also includes interlocking bridge (XTCEXLB). The following control cables are integrated for electrical interlock:
K1M: A1–K2M: 21; K1M: 21–K2M: A1; K1M: A2–K2M: A2.