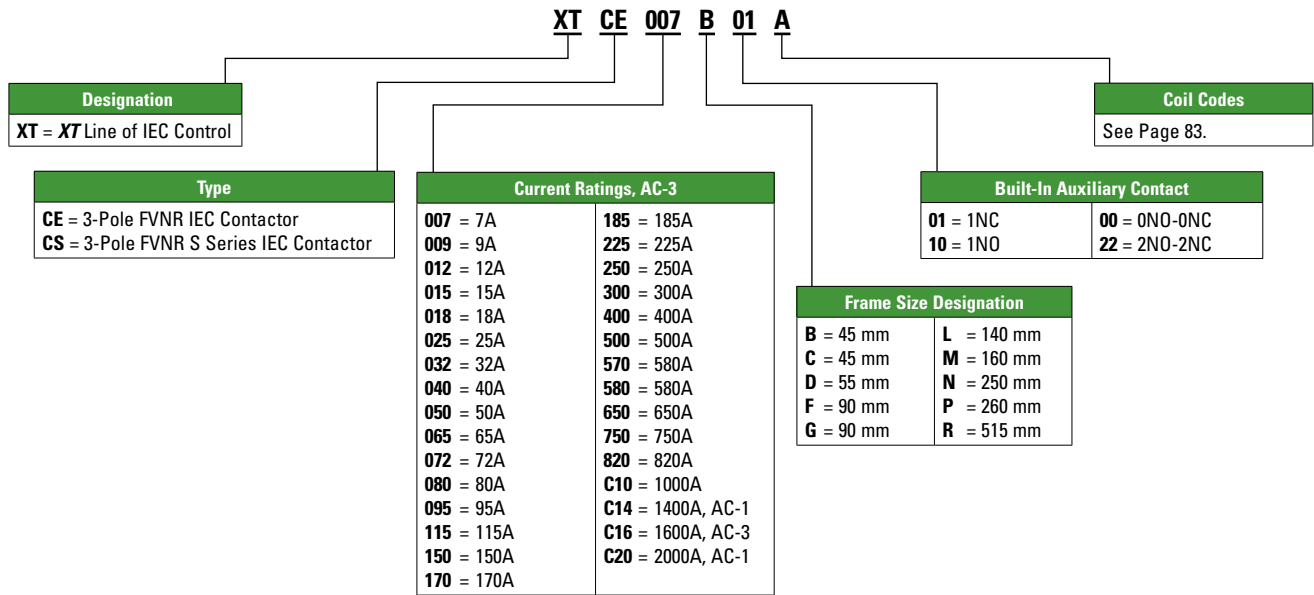


Motor Control

Contactors

CATALOG SELECTION

XT IEC Contactors — Catalog Numbering System



XT IEC Contactors

- 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



Full Voltage Non-Reversing 3-Pole Contactors, Frame B – Frame G

UL/CSA Ratings								IEC Ratings						Aux. Contacts	Catalog Number — Screw Terminals ①②
UL General Purpose Amp Rating	1-Phase hp Ratings			3-Phase hp Ratings				AC-3 I _e (A)	AC-1 (40°C) I _e = I _{th} (A)	Maximum kW Ratings AC-3 3-Phase Motors 50 – 60 Hz					
	115V	200V	230V	200V	230V	460V	575V			220/230V	380/400V	415V	660/690V		

Frame B

20	1/4	3/4	1	1-1/2	2	3	5	7	20	2.2	3	4	3.5	1NO	XTCE007B10_
20	1/4	3/4	1	1-1/2	2	3	5	7	20	2.2	3	4	3.5	1NC	XTCE007B01_
20	1/2	1	1-1/2	3	3	5	7-1/2	9	20	2.5	4	5.5	4.5	1NO	XTCE009B10_
20	1/2	1	1-1/2	3	3	5	7-1/2	9	20	2.5	4	5.5	4.5	1NC	XTCE009B01_
20	1	2	2	3	3	10 ^③	10	12	20	3.5	5.5	7	6.5	1NO	XTCE012B10_
20	1	2	2	3	3	10 ^③	10	12	20	3.5	5.5	7	6.5	1NC	XTCE012B01_
20	1	2	3	5	5	10 ^③	10	15.5	20	4	7.5	8	7	1NO	XTCE015B10_
20	1	2	3	5	5	10 ^③	10	15.5	20	4	7.5	8	7	1NC	XTCE015B01_

Frame C

40	2	2	3	5	5	10 ^③	15	18	35	5	7.5	10	11	1NO	XTCE018C10_
40	2	2	3	5	5	10 ^③	15	18	35	5	7.5	10	11	1NC	XTCE018C01_
40	2	3	5	7-1/2	10	15	20	25	40	7.5	11	14.5	14	1NO	XTCE025C10_
40	2	3	5	7-1/2	10	15	20	25	40	7.5	11	14.5	14	1NC	XTCE025C01_
40	3	5	5	10	10	20	25	32	40	10	15	18	17	1NO	XTCE032C10_
40	3	5	5	10	10	20	25	32	40	10	15	18	17	1NC	XTCE032C01_

Frame D

63	3	5	7-1/2	10	15	30	40	40	50	12.5	18.5	24	23	—	XTCE040D00_
80	3	7-1/2	10	15	20	40	50	50	65	15.5	22	30	30	—	XTCE050D00_
88	5	10	15	20	25	50	60	65	80	20	30	39	35	—	XTCE065D00_
88	5	10	15	20	25	50	60	72	80	22	37	41	35	—	XTCE072D00_

Frame F

125	7-1/2	15	15	25	30	60	75	80	90	25	37	48	63	—	XTCE080F00_
125	7-1/2	15	15	25	40	75	110	95	110	30	45	57	75	—	XTCE095F00_

Frame G

160	10	25	25	40	50	100	100	115	130	37	55	70	90	—	XTCE115G00_
180	10	25	30	40	60	125	125	150	160	48	75	91	96	—	XTCE150G00_
225 ^④	10	25	30	40	60	125	125	170	275 ^④	52	90	100	96	—	XTCE170G00_

① Underscore (_) indicates magnet coil suffix required. See Page 83.

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 Tab 34 of the Control Products Catalog (CA08102001E).

④ For 225 – 275A, use 2 x 70 mm² wire.

⑤ For 180 – 225A, use 2 x 3/0 AWG wire.

Note: 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. 6 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. Frame B – C contactors with 1NC built-in auxiliary are mirror contacts (XTCE...B01_ – XTCE...C01_).

Motor Control

Contactors

PRODUCT SELECTION

XT IEC Contactors

Full Voltage Non-Reversing 3-Pole Contactors, Frame L – Frame R

UL/CSA Ratings					IEC Ratings					Aux. Contacts	Catalog Number ①		
UL General Purpose Amp Rating	3-Phase hp Ratings				AC-3 I _e (A)	AC-1 (40°C) I _e = I _{th} (A)	Maximum kW Ratings AC-3						
	3-Phase Motors 50 – 60 Hz												
	200V	230V	460V	575V			220/230V	380/400V	415V	660/690V ②	1000V ②		

Frame L — Standard Coil (110/120V, 230/240V ac Coil Only)

225	50	60	125	150	185	337	55	90	110	175	108	2NO-2NC	XTCS185L22_
250	60	75	150	200	225	386	70	110	132	215	108	2NO-2NC	XTCS225L22_
300	75	100	200	250	250	429	75	132	148	240	108	2NO-2NC	XTCS250L22_

Frame L — Electronic Coil

225	50	60	125	150	185	337	55	90	110	175	108	2NO-2NC	XTCE185L22_
250	60	75	150	200	225	386	70	110	132	215	108	2NO-2NC	XTCE225L22_
300	75	100	200	250	250	429	75	132	148	240	108	2NO-2NC	XTCE250L22_

Frame M — Standard Coil (110/120V, 230/240V ac Coil Only)

350	100	125	250	300	300	490	90	160	180	286	132	2NO-2NC	XTCS300M22_
450	125	150	300	400	400	612	125	200	240	344	132	2NO-2NC	XTCS400M22_
550	150	200	400	500	500	857	155	250	300	344	132	2NO-2NC	XTCS500M22_
550	150	200	400	500	580	980	155	315	—	344	132	2NO-2NC	XTCS570M22_

Frame M — Electronic Coil

350	100	125	250	300	300	490	90	160	180	286	132	2NO-2NC	XTCE300M22_
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_
550	150	200	400	500	580	980	155	315	350	344	132	2NO-2NC	XTCE570M22_

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
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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

① Underscore (_) indicates magnet coil suffix required. See Page 83.

② For 185 – 500A contactors at 660/690V or 1000V: Do not reverse directly.

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.

Contactors Application Data

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

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

Full Voltage Non-Reversing 3-Pole Contactors — Contact Sequence (Circuit Symbols) — Standard Offering

Contactors Frame	Auxiliary Contacts	Contact Sequence
B – C	1NO	
B – C	1NC	
D – G	—	
L – R	2NO-2NC	

XTIEC Contactors

Magnet Coil Suffix

Coil Voltage	Suffix Code
Frame B – F	
110V 50 Hz, 120V 60 Hz	A
220V 50 Hz, 240V 60 Hz	B
24V 50/60 Hz	T
24V dc	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 – 27V dc	TD
480 – 500V 50/60 Hz	C

Magnet Coil Suffix (Continued)

Coil Voltage	Suffix Code
Frame L – N	
110 – 250V 40 – 60 Hz/DC	A
250 – 500V 40 – 60 Hz	C
24 – 48V dc	TD
Frame L – M, S-Series	
110 – 120V 50/60 Hz	A
220 – 240V 50/60 Hz	B
Frame 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

Motor Control

Contactors

PRODUCT SELECTION

XT IEC Contactors

Auxiliary Contacts

	Conventional Thermal Current, Open at 60°C $I_{th} = I_n$, AC-1 in Amps	Poles	Contact Configuration	Circuit Symbol	Pkg. Qty.	Catalog Number — Screw Terminals
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Frame B – C — Front (Top) Mount

	16	2	2NO		5	XTCEXFAC20
	16	2	1NO-1NC		5	XTCEXFAC11
	16	4	4NO		5	XTCEXFAC40
	16	4	2NO-2NC		5	XTCEXFAC22

Frame B — Side Mount ①

	16	1	1NO		1	XTCEXSAB10
	16	1	1NC		1	XTCEXSAB01

Frame C — Side Mount

	10	2	1NO-1NC		1	XTCEXSCC11 ①
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Frame D — G

	16	2	2NO		5	XTCEXFBG20
	16	2	1NO-1NC		5	XTCEXFBG11
	16	4	4NO-0NC		5	XTCEXFBG40
	16	4	2NO-2NC		5	XTCEXFBG22

① Can be mounted to the left side of contactor only. Cannot be used in combination with front (top) mount auxiliary contacts or mechanical interlocks.

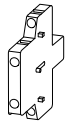

Note: Interlocked opposing contacts, to IEC/EN 60947-5-1 Annex L (positively driven), within the auxiliary contact modules (not NO (early make) and NC (late break) contacts) and for the built-in auxiliary contacts of the XTCE007B... – XTCE032C... Auxiliary break contact can be used as mirror contact to IEC/EN 60947-4-1 Annex F (not NC (late break) contact). No auxiliary contacts can be fitted between two contactors.

XT IEC Contactors

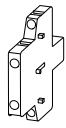

Side Mount Auxiliary Contacts for Frame D – R, 40 – 2000A

Conventional Free Air Thermal Current, $I_{th} = I_e$, AC-1 in Amps	Poles	Contact Configuration	Circuit Symbol	Pkg. Qty.	Catalog Number — Screw Terminals
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Frame D – R

	10	2	1NO-1NC		1	XTCEXSBN11
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Frame D – R (Screw Mount)






	10	2	1NO-1NC		1	XTCEXSBR11
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Note: For Frames B – C, cannot use both a side AND a top mount auxiliary contact at the same time.
 For Frame D, 6 auxiliary contacts maximum (can be a combination of side and top mount units)
 For Frames F – R, 8 auxiliary contacts maximum (can be a combination of side and top mount units)



Accessories

	For Use with...	Pkg. Qty.	Catalog Number
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Mechanical Interlock ①

	XTCE007B – XTCE015B, XTCF020B	5	XTCEXMLB
	XTCE018C – XTCE032C XTCF032C – XTCF045C XTCE040D – XTCE072D	1	XTCEXMLC
	XTCF063D – XTCF080D	1	XTCEXMLD
	XTCE080F – XTCE170G XTCF125G – XTCF200G	1	XTCEXMLG ②
	XTCE185L – XTCE570M	1	XTCEXMLM
	XTCE580N – XTCEC10N	1	XTCEXMLN ②
	XTCE500M – XTCE570M with XTCE500N – XTCEC10N	1	XTCEXMLNM ②

Reversing Link Kits

	XTCE007B – XTCE015B	1	XTCEXRLB ③
	XTCE018C – XTCE032C	1	XTCEXRLC
	XTCE040D – XTCE065D	1	XTCEXRLD
	XTCE080F – XTCE150G	1	XTCEXR LG
	XTCE185L – XTCE250L	1	XTCEXRLL
	XTCE300M – XTCE400M	1	XTCEXR LM400

① For two contactors with AC or DC operated magnet system which are horizontally or vertically mounted. For B – G frames, mechanical lifespan is 2.5×10^6 operations and the distance between contactors is 0 mm. For L – N frames, mechanical lifespan is 5×10^6 operations and no auxiliary contact can be mounted between the mechanical interlock and the contactor — the distance between contactors is 15 mm.

② XTCEXMLG, XTCEXMLN and XTCEXMLNM consist of an interlock element and mounting plate.

③ 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.