

## Product Selection

## Full Voltage, Non-Reversing Contactors

## Frame B



## Three-Pole Contactors, Frame B—UL/CSA Ratings

UL General Purpose Ampere Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
	115V	200V	230V	200V	230V	460V	575V		
20	1/4	3/4	1	1-1/2	2	3	5	1NO	XTCE007B10_
20	1/4	3/4	1	1-1/2	2	3	5	1NC	XTCE007B01_
20	1/2	1	1-1/2	3	3	5	7-1/2	1NO	XTCE009B10_
20	1/2	1	1-1/2	3	3	5	7-1/2	1NC	XTCE009B01_
20	1	2	2	3	3	10 <sup>③</sup>	10	1NO	XTCE012B10_
20	1	2	2	3	3	10 <sup>③</sup>	10	1NC	XTCE012B01_
20	1	2	3	5	5	10 <sup>③</sup>	10	1NO	XTCE015B10_
20	1	2	3	5	5	10 <sup>③</sup>	10	1NC	XTCE015B01_

## Three-Pole Contactors, Frame B—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V		
7	22	2.2	3	4	3.5	1NO	XTCE007B10_
7	22	2.2	3	4	3.5	1NC	XTCE007B01_
9	22	2.5	4	5.5	4.5	1NO	XTCE009B10_
9	22	2.5	4	5.5	4.5	1NC	XTCE009B01_
12	22	3.5	5.5	7	6.5	1NO	XTCE012B10_
12	22	3.5	5.5	7	6.5	1NC	XTCE012B01_
15.5	22	4	7.5	8	7	1NO	XTCE015B10_
15.5	22	4	7.5	8	7	1NC	XTCE015B01_

## 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.

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

① Underscore ( \_ ) indicates magnet coil suffix required. See **Page V5-T1-53**.

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 **Page V5-T1-45**.

1

Frame C



#### Three-Pole Contactors, Frame C—UL/CSA Ratings

UL General Purpose Ampere Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
	115V	200V	230V	200V	230V	460V	575V		
40	2	2	3	5	5	10	15	1NO	XTCE018C10_
40	2	2	3	5	5	10	15	1NC	XTCE018C01_
40	2	3	5	7-1/2	10	15	20	1NO	XTCE025C10_
40	2	3	5	7-1/2	10	15	20	1NC	XTCE025C01_
40	3	5	5	10	10	20	25	1NO	XTCE032C10_
40	3	5	5	10	10	20	25	1NC	XTCE032C01_

#### Three-Pole Contactors, Frame C—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V		
18	40	5	7.5	10	11	1NO	XTCE018C10_
18	40	5	7.5	10	11	1NC	XTCE018C01_
25	45	7.5	11	14.5	14	1NO	XTCE025C10_
25	45	7.5	11	14.5	14	1NC	XTCE025C01_
32	45	10	15	18	17	1NO	XTCE032C10_
32	45	10	15	18	17	1NC	XTCE032C01_

Frame D



#### Three-Pole Contactors, Frame D—UL/CSA Ratings

UL General Purpose Ampere Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
	115V	200V	230V	200V	230V	460V	575V		
63	3	5	7-1/2	10	15	30	40	—	XTCE040D00_
63	3	5	7-1/2	10	15	30	40	1NO-1NC	XTCE040DS1_
80	3	7-1/2	10	15	20	40	50	—	XTCE050D00_
80	3	7-1/2	10	15	20	40	50	1NO-1NC	XTCE050DS1_
88	5	10	15	20	25	50	60	—	XTCE065D00_
88	5	10	15	20	25	50	60	1NO-1NC	XTCE065DS1_
88	5	10	15	20	25	50	60	—	XTCE072D00_
88	5	10	15	20	25	50	60	1NO-1NC	XTCE072DS1_

#### Three-Pole Contactors, Frame D—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V		
40	60	12.5	18.5	24	23	—	XTCE040D00_
40	60	12.5	18.5	24	23	1NO-1NC	XTCE040DS1_
50	80	15.5	22	30	30	—	XTCE050D00_
50	80	15.5	22	30	30	1NO-1NC	XTCE050DS1_
65	98	20	30	39	35	—	XTCE065D00_
65	98	20	30	39	35	1NO-1NC	XTCE065DS1_
72	98	22	37	41	35	—	XTCE072D00_
72	98	22	37	41	35	1NO-1NC	XTCE072DS1_

#### 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.

① Underscore (\_) indicates magnet coil suffix required. See **Page V5-T1-53**.

② For spring cage terminals, insert **C** after the fourth digit of the catalog number. Example: XTCEC007B10A.

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.

Frame F



## Three-Pole Contactors, Frame F—UL/CSA Ratings

UL General Purpose Ampere Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
	115V	200V	230V	200V	230V	460V	575V		
125	7-1/2	15	15	25	30	60	75	—	XTCE080F00_
125	7-1/2	15	15	25	30	60	75	1NO-1NC	XTCE080FS1_
125	7-1/2	15	15	25	40	75	100	—	XTCE095F00_
125	7-1/2	15	15	25	40	75	100	1NO-1NC	XTCE095FS1_

## Three-Pole Contactors, Frame F—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V		
80	110	25	37	48	63	—	XTCE080F00_
80	110	25	37	48	63	1NO-1NC	XTCE080FS1_
95	130	30	45	57	75	—	XTCE095F00_
95	130	30	45	57	75	1NO-1NC	XTCE095FS1_

Frame G



## Three-Pole Contactors, Frame G—UL/CSA Ratings

UL General Purpose Ampere Rating	Single-Phase hp Ratings			Three-Phase hp Ratings				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
	115V	200V	230V	200V	230V	460V	575V		
160	10	25	25	40	50	100	100	—	XTCE115G00_
160	10	25	25	40	50	100	100	1NO-1NC	XTCE115GS1_
180	10	25	30	40	60	125	125	—	XTCE150G00_
180	10	25	30	40	60	125	125	1NO-1NC	XTCE150GS1_
180	10	25	30	40	60	125	125	—	XTCE170G00_
180	10	25	30	40	60	125	125	1NO-1NC	XTCE170GS1_

## Three-Pole Contactors, Frame G—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Screw Terminal Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V		
115	160	37	55	70	90	—	XTCE115G00_
115	160	37	55	70	90	1NO-1NC	XTCE115GS1_
150	190	48	75	91	96	—	XTCE150G00_
150	190	48	75	91	96	1NO-1NC	XTCE150GS1_
170	225	52	90	100	96	—	XTCE170G00_
170	225	52	90	100	96	1NO-1NC	XTCE170GS1_

## Notes

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.

① Underscore ( \_ ) indicates magnet coil suffix required. See **Page V5-T1-53**.

② For spring cage terminals, insert **C** after the fourth digit of the catalog number. Example: XTCEC007B10A.

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.

1

#### Frame H



#### Three-Pole Contactors, Frame H (Electronic Coil)—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	240V	480V	600V		
250	50	60	125	150	2NO-2NC	XTCE185H22_
250	60	75	150	200	2NO-2NC	XTCE225H22_

#### Three-Pole Contactors, Frame H (Electronic Coil)—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	660/690V <sup>③</sup>	1000V <sup>③</sup>		
185	337	55	90	140	108	2NO-2NC	XTCE185H22_
225	386	70	110	215	108	2NO-2NC	XTCE225H22_

#### Frame L



#### Three-Pole Contactors, Frame L—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	230V	460V	575V		
<b>Standard Coil (110/120V, 230/240 Vac Coil Only)</b>						
300	75	100	200	250	2NO-2NC	XTCS250L22_
350	100	125	250	300	2NO-2NC	XTCS300L22_
<b>Electronic Coil</b>						
300	75	100	200	250	2NO-2NC	XTCE250L22_
350	100	125	250	300	2NO-2NC	XTCE300L22_

#### Three-Pole Contactors, Frame L—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz				Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	660/690V <sup>③</sup>	1000V <sup>③</sup>		
<b>Standard Coil (110/120V, 230/240 Vac Coil Only)</b>							
250	429	75	132	240	108	2NO-2NC	XTCS250L22_
300	490	90	160	195	132	2NO-2NC	XTCS300L22_
<b>Electronic Coil</b>							
250	429	75	132	240	108	2NO-2NC	XTCE250L22_
300	490	90	160	195	132	2NO-2NC	XTCE300L22_

#### Notes

- ① Underscore (\_) indicates magnet coil suffix required. See **Page V5-T1-53**. Terminals not included. See **Page V5-T1-75** for terminal accessories.
- ② Does not include lugs.
- ③ For 185–500A contactors at 660/690V or 1000V: Do not reverse directly.

## Frame M



## Three-Pole Contactors, Frame M—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	230V	460V	575V		
<b>Standard Coil (110/120V, 230/240 Vac Coil Only)</b>						
450	125	150	300	400	2NO-2NC	XTCS400M22_
550	150	200	400	500	2NO-2NC	XTCS500M22_
<b>Electronic Coil</b>						
450	125	150	300	400	2NO-2NC	XTCE400M22_
550	150	200	400	500	2NO-2NC	XTCE500M22_

## Three-Pole Contactors, Frame M—IEC Ratings

AC-3 $I_e$ (A)	AC-1 (40°C) $I_e = I_{th}$ (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz					Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V <sup>③</sup>	1000V <sup>③</sup>		
<b>Standard Coil (110/120V, 230/240 Vac Coil Only)</b>								
400	612	125	200	240	344	132	2NO-2NC	XTCS400M22_
500	800	155	250	300	344	132	2NO-2NC	XTCS500M22_
<b>Electronic Coil</b>								
400	612	125	200	240	344	132	2NO-2NC	XTCE400M22_
500	800	155	250	300	344	132	2NO-2NC	XTCE500M22_

**Notes**

- ① Underscore (\_) indicates magnet coil suffix required. See **Page V5-T1-53**. Terminals not included. See **Page V5-T1-75** for terminal accessories.  
 ② Does not include lugs.  
 ③ For 185–500A contactors at 660/690V or 1000V: Do not reverse directly.

## Frame N



## Three-Pole Contactors, Frame N (Electronic Coil)—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	230V	460V	575V		
630	200	200	400	600	2NO-2NC	XTCE580N22_ <sup>③</sup>
700	200	250	500	600	2NO-2NC	XTCE650N22_ <sup>③</sup>
800	250	300	600	700	2NO-2NC	XTCE750N22_ <sup>③</sup>
850	290	350	700	860	2NO-2NC	XTCE820N22_ <sup>③</sup>
1100	350	420	850	980	2NO-2NC	XTCEC10N22_ <sup>③</sup>

## Three-Pole Contactors, Frame N (Electronic Coil)—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz					Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V <sup>④</sup>	1000V <sup>④</sup>		
580	980	185	315	348	560	600	2NO-2NC	XTCE580N22_ <sup>③</sup>
650	1041	205	355	390	630	600	2NO-2NC	XTCE650N22_ <sup>③</sup>
750	1102	240	400	455	720	800	2NO-2NC	XTCE750N22_ <sup>③</sup>
820	1225	260	450	500	750	800	2NO-2NC	XTCE820N22_ <sup>③</sup>
1000	1225	315	560	610	1000	1000	2NO-2NC	XTCEC10N22_ <sup>③</sup>

## Frame P



## Three-Pole Contactors, Frame P (Electronic Coil)—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	230V	460V	575V		
1400	—	—	—	—	2NO-2NC	XTCEC14P22_ <sup>③</sup>

## Three-Pole Contactors, Frame P (Electronic Coil)—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz					Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V <sup>④</sup>	1000V <sup>④</sup>		
—	1714	—	—	—	—	—	2NO-2NC	XTCEC14P22_ <sup>③</sup>

## Frame R



## Three-Pole Contactors, Frame R (Electronic Coil)—UL/CSA Ratings

UL General Purpose Ampere Rating	Three-Phase hp Ratings				Auxiliary Contacts	Catalog Number <sup>①②</sup>
	200V	230V	460V	575V		
1600	560	640	1200	1300	2NO-2NC	XTCEC16R22_ <sup>③</sup>
2000	—	—	—	—	2NO-2NC	XTCEC20R22_ <sup>③</sup>

## Three-Pole Contactors, Frame R (Electronic Coil)—IEC Ratings

AC-3 I <sub>e</sub> (A)	AC-1 (40°C) I <sub>e</sub> = I <sub>th</sub> (A)	Maximum kW Ratings AC-3/Three-Phase Motors 50–60 Hz					Auxiliary Contacts	Catalog Number <sup>①②</sup>
		220/230V	380/400V	415V	660/690V <sup>④</sup>	1000V <sup>④</sup>		
1600	2200	500	900	900	1600	1700	2NO-2NC	XTCEC16R22_ <sup>③</sup>
—	2450	—	—	—	—	—	2NO-2NC	XTCEC20R22_ <sup>③</sup>

## Notes

- ① Underscore ( \_ ) indicates magnet coil suffix required. See **Page V5-T1-53**. Terminals not included. See **Page V5-T1-75** for terminal accessories.
- ② Does not include lugs.
- 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.
- ④ For 185–500A contactors at 660/690V or 1000V: do not reverse directly.

## Full Voltage, Reversing Contactors

## Frame B



## Contactors with Screw Terminals, Frame B—Maximum UL/CSA Ratings

Single-Phase hp Ratings		Three-Phase hp Ratings				Spare Auxiliary Contacts		Catalog Number ①
115V	230V	200V	230V	460V	575V	K1M	K2M	
1/4	1	1-1/2	2	3	5	—  63 —  64	—  63 —  64	XTCR007B21_
1/2	1-1/2	3	3	5	7-1/2	—  63 —  64	—  63 —  64	XTCR009B21_
1/2	2	3	3	10	10	—  63 —  64	—  63 —  64	XTCR012B21_

## Contactors with Screw Terminals, Frame B—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz				Spare Auxiliary Contacts		Catalog Number ①
	220/230V	380/400V	415V	660/690V	K1M	K2M	
7	2.2	3	4	3.5	—  63 —  64	—  63 —  64	XTCR007B21_
9	2.5	4	5.5	4.5	—  63 —  64	—  63 —  64	XTCR009B21_
12	3.5	5.5	7	6.5	—  63 —  64	—  63 —  64	XTCR012B21_

## Frame C



## Contactors with Screw Terminals, Frame C—Maximum UL/CSA Ratings

Single-Phase hp Ratings		Three-Phase hp Ratings				Spare Auxiliary Contacts		Catalog Number ①
115V	230V	200V	230V	460V	575V	K1M	K2M	
2	3	5	5	10	15	—  63 —  64	—  63 —  64	XTCR018C21_
2	5	7-1/2	10	15	20	—  63 —  64	—  63 —  64	XTCR025C21_
3	5	10	10	20	25	—  63 —  64	—  63 —  64	XTCR032C21_

## Contactors with Screw Terminals, Frame C—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz				Spare Auxiliary Contacts		Catalog Number ①
	220/230V	380/400V	415V	660/690V	K1M	K2M	
18	5	7.5	8	11	—  63 —  64	—  63 —  64	XTCR018C21_
25	7.5	11	14.5	14	—  63 —  64	—  63 —  64	XTCR025C21_
32	10	15	18	17	—  63 —  64	—  63 —  64	XTCR032C21_

## Note

① Underscore ( \_ ) indicates magnet coil suffix required. See Page V5-T1-53.

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#### Frame D



#### Contactors with Screw Terminals, Frame D—Maximum UL/CSA Ratings

Single-Phase hp Ratings		Three-Phase hp Ratings				Spare Auxiliary Contacts		Catalog Number ①
115V	230V	200V	230V	460V	575V	K1M	K2M	
3	7-1/2	10	15	30	40	—	—	XTCR040D11_
3	10	15	20	40	50	—	—	XTCR050D11_
5	15	20	25	50	60	—	—	XTCR065D11_

#### Contactors with Screw Terminals, Frame D—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz				Spare Auxiliary Contacts		Catalog Number ①
	220/230V	380/400V	415V	660/690V	K1M	K2M	
40	12.5	18.5	24	23	—	—	XTCR040D11_
50	15.5	22	30	30	—	—	XTCR050D11_
65	20	30	39	35	—	—	XTCR065D11_

#### Frame F



#### Contactors with Screw Terminals, Frame F—Maximum UL/CSA Ratings

Single-Phase hp Ratings		Three-Phase hp Ratings				Spare Auxiliary Contacts		Catalog Number ①
115V	230V	200V	230V	460V	575V	K1M	K2M	
7-1/2	15	25	30	60	75	—	—	XTCR080F11_
7-1/2	15	25	40	75	100	—	—	XTCR095F11_

#### Contactors with Screw Terminals, Frame F—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz				Spare Auxiliary Contacts		Catalog Number ①
	220/230V	380/400V	415V	660/690V	K1M	K2M	
80	25	37	48	63	—	—	XTCR080F11_
95	30	45	57	75	—	—	XTCR095F11_

#### Frame G



#### Contactors with Screw Terminals, Frame G—Maximum UL/CSA Ratings

Single-Phase hp Ratings		Three-Phase hp Ratings				Spare Auxiliary Contacts		Catalog Number ①
115V	230V	200V	230V	460V	575V	K1M	K2M	
10	25	40	50	100	100	—	—	XTCR115G11_
15	30	40	60	100	100	—	—	XTCR150G11_

#### Contactors with Screw Terminals, Frame G—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz				Spare Auxiliary Contacts		Catalog Number ①
	220/230V	380/400V	415V	660/690V	K1M	K2M	
115	37	55	70	90	—	—	XTCR115G11_
150	48	75	91	96	—	—	XTCR150G11_

**Note**

① Underscore (\_) indicates magnet coil suffix required. See Page V5-T1-53.



## XTCR Reversing Contactor Components

Quantity	Frame	B	C	D	F	G
2	Contactors	XTCE...B01_	XTCE...C01_	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

## Magnet Coil Suffix

Coil Voltage	Suffix Code
<b>Frames A–B</b>	
110V 50 Hz, 120V 60 Hz	<b>A</b>
220V 50 Hz, 240V 60 Hz	<b>B</b>
230V 50 Hz	<b>F</b>
24V 50/60 Hz	<b>T</b>
24 Vdc	<b>TD</b>
415V 50 Hz, 480V 60 Hz	<b>C</b>
600V 60 Hz	<b>D</b>
208V 60 Hz	<b>E</b>
190V 50 Hz, 220V 60 Hz	<b>G</b>
240V 50 Hz, 277V 60 Hz	<b>H</b>
380V 50 Hz, 440V 60 Hz	<b>L</b>
400V 50 Hz	<b>N</b>
380V 60 Hz	<b>P</b>
12V 50/60 Hz	<b>R</b>
42V 50 Hz, 48V 60 Hz	<b>W</b>
48V 50 Hz	<b>Y</b>
120 Vdc	<b>AD</b>
220 Vdc	<b>BD</b>
12 Vdc	<b>RD</b>
48 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frames C–F</b>	
110V 50 Hz, 120V 60 Hz	<b>A</b>
220V 50 Hz, 240V 60 Hz	<b>B</b>
230V 50 Hz	<b>F</b>
24V 50/60 Hz	<b>T</b>
24–27 Vdc	<b>TD</b>
415V 50 Hz, 480V 60 Hz	<b>C</b>
600V 60 Hz	<b>D</b>
208V 60 Hz	<b>E</b>
190V 50 Hz, 220V 60 Hz	<b>G</b>
240V 50 Hz, 277V 60 Hz	<b>H</b>
380V 50 Hz, 440V 60 Hz	<b>L</b>
400V 50 Hz	<b>N</b>
380V 60 Hz	<b>P</b>
12V 50/60 Hz	<b>R</b>
42V 50 Hz, 48V 60 Hz	<b>W</b>
48V 50 Hz	<b>Y</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
48–60 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frame G</b>	
100–120V 50/60 Hz	<b>A</b>
190–240V 50/60 Hz	<b>B</b>
24V 50/60 Hz	<b>T</b>
24–27 Vdc	<b>TD</b>
480–500V 50/60 Hz	<b>C</b>
380–440V 50/60 Hz	<b>L</b>
42–48V 50/60 Hz	<b>W</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
48–60 Vdc	<b>WD</b>
<b>Frame H</b>	
100–120V 50/60 Hz	<b>A</b>
190–240V 50/60 Hz	<b>B</b>
480–500V 50/60 Hz	<b>C</b>
380–440V 50/60 Hz	<b>L</b>
24V 50/60Hz	<b>T</b>
42–48V 50/60Hz	<b>W</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
24–27 Vdc	<b>TD</b>
48–60 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frames L–N</b>	
110–250 Vdc 40–60 Hz	<b>A</b>
250–500V 40–60 Hz	<b>C</b>
48–110 Vdc 40–60 Hz	<b>Y</b>
24–48 Vdc	<b>TD</b> <sup>①</sup>
<b>Frames L–M, S-Series</b>	
110–120V 50/60 Hz	<b>A</b>
220–240V 50/60 Hz	<b>B</b>
<b>Frames P–R</b>	
230–250 Vdc 50–60 Hz	<b>B</b>

**Note**

<sup>①</sup> Frames L–M only.

## Star-Delta (Wye-Delta) Starters

## Frame B—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number ①
200V	230V	460V	575V			
3	3	2-1/2	10	<20	K1M main contactor	XTCE007B10_
					K5M delta contactor	XTCE007B01_
					K3M star contactor	XTCE007B01_
					Mechanical interlock	XTCEXMLB
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...BC1
					(3) auxiliary contacts	XTCEXFAC20
					Star-delta link kit	XTCEXSDLB
3	5	7-1/2	10	<20	K1M main contactor	XTCE009B10_
					K5M delta contactor	XTCE009B01_
					K3M star contactor	XTCE009B01_
					Mechanical interlock	XTCEXMLB
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...BC1
					(3) auxiliary contacts	XTCEXFAC20
					Star-delta link kit	XTCEXSDLB
5	5	10	15	<20	K1M main contactor	XTCE012B10_
					K5M delta contactor	XTCE012B01_
					K3M star contactor	XTCE012B01_
					Mechanical interlock	XTCEXMLB
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...BC1
					(3) auxiliary contacts	XTCEXFAC20
					Star-delta link kit	XTCEXSDLB

## Frame B—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number ①
	220/230V	380/400V	415V	500V	660/690V	1000V			
12	3	5.5	7	5.5	5.5	—	<20	K1M main contactor	XTCE007B10_
								K5M delta contactor	XTCE007B01_
								K3M star contactor	XTCE007B01_
								Mechanical interlock	XTCEXMLB
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...BC1
								(3) auxiliary contacts	XTCEXFAC20
								Star-delta link kit	XTCEXSDLB
16	4	7.5	8	7.5	7.5	—	<20	K1M main contactor	XTCE009B10_
								K5M delta contactor	XTCE009B01_
								K3M star contactor	XTCE009B01_
								Mechanical interlock	XTCEXMLB
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...BC1
								(3) auxiliary contacts	XTCEXFAC20
								Star-delta link kit	XTCEXSDLB
22	5.5	11	14.5	11	11	—	<20	K1M main contactor	XTCE012B10_
								K5M delta contactor	XTCE012B01_
								K3M star contactor	XTCE012B01_
								Mechanical interlock	XTCEXMLB
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...BC1
								(3) auxiliary contacts	XTCEXFAC20
								Star-delta link kit	XTCEXSDLB

**Note**

① Underscore ( ) indicates magnet coil suffix required. See Page V5-T1-62.

#### Frame C—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number ①
200V	230V	460V	575V			
7-1/2	7-1/2	15	20	<20	K1M main contactor	XTCE018C10_
					K5M delta contactor	XTCE018C01_
					K3M star contactor	XTCE018C01_
					Mechanical interlock	XTCEXMLC
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...CC1
					(3) auxiliary contacts	XTCEXFAC20
					Star-delta link kit	XTCEXSDLC
10	15	30	40		<20	K1M main contactor
				K5M delta contactor		XTCE025C01_
				K3M star contactor		XTCE025C01_
				Mechanical interlock		XTCEXMLC
				K1T timing relay		XTTR6A60S51B
				Overload relay		XTOB...CC1
				(3) auxiliary contacts		XTCEXFAC20
				Star-delta link kit		XTCEXSDLC
15	20	40	50	<20		K1M main contactor
					K5M delta contactor	XTCE032C01_
					K3M star contactor	XTCE032C01_
					Mechanical interlock	XTCEXMLC
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...CC1
					(3) auxiliary contacts	XTCEXFAC20
					Star-delta link kit	XTCEXSDLC

#### Frame C—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number ①
	220/230V	380/400V	415V	500V	660/690V	1000V			
30	7.5	15	19	18.5	18.5	—	<20	K1M main contactor	XTCE018C10_
								K5M delta contactor	XTCE018C01_
								K3M star contactor	XTCE018C01_
								Mechanical interlock	XTCEXMLC
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...CC1
								(3) auxiliary contacts	XTCEXFAC20
								Star-delta link kit	XTCEXSDLC
45	11	22	30	30	22	—		<20	K1M main contactor
							K5M delta contactor		XTCE025C01_
							K3M star contactor		XTCE025C01_
							Mechanical interlock		XTCEXMLC
							K1T timing relay		XTTR6A60S51B
							Overload relay		XTOB...CC1
							(3) auxiliary contacts		XTCEXFAC20
							Star-delta link kit		XTCEXSDLC
55	15	30	39	37	30	—	<20		K1M main contactor
								K5M delta contactor	XTCE032C01_
								K3M star contactor	XTCE032C01_
								Mechanical interlock	XTCEXMLC
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...CC1
								(3) auxiliary contacts	XTCEXFAC20
								Star-delta link kit	XTCEXSDLC

**Note**

① Underscore (\_) indicates magnet coil suffix required. See Page V5-T1-62.

## Frame D—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number ①
200V	230V	460V	575V			
20	25	50	60	<20	K1M main contactor	XTCE040D00_
					K5M delta contactor	XTCE040D00_
					K3M star contactor	XTCE040D00_
					Mechanical interlock	XTCEXMLD
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...DC1
					(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDL
25	30	60	75	<20	K1M main contactor	XTCE050D00_
					K5M delta contactor	XTCE050D00_
					K3M star contactor	XTCE040D00_
					Mechanical interlock	XTCEXMLD
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...DC1
					(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDL
40	50	100	125	<20	K1M main contactor	XTCE065D00_
					K5M delta contactor	XTCE065D00_
					K3M star contactor	XTCE040D00_
					Mechanical interlock	XTCEXMLD
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...DC1
					(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDL

## Frame D—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz					Max. Changeover Time (sec)	Component Description	Catalog Number ①	
	220/230V	380/400V	415V	500V	660/690V				1000V
70	18.5	37	37	45	37	—	<20	K1M main contactor	XTCE040D00_
								K5M delta contactor	XTCE040D00_
								K3M star contactor	XTCE040D00_
								Mechanical interlock	XTCEXMLD
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...DC1
								(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDL
90	22	45	45	55	45	—	<20	K1M main contactor	XTCE050D00_
								K5M delta contactor	XTCE050D00_
								K3M star contactor	XTCE040D00_
								Mechanical interlock	XTCEXMLD
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...DC1
								(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDL
115	30	55	55	75	55	—	<20	K1M main contactor	XTCE065D00_
								K5M delta contactor	XTCE065D00_
								K3M star contactor	XTCE040D00_
								Mechanical interlock	XTCEXMLD
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...DC1
								(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDL

**Note**

① Underscore ( ) indicates magnet coil suffix required. See Page V5-T1-62.

#### Frame F—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
200V	230V	460V	575V			
40	60	125	150	<20	K1M main contactor	XTCE080F00_
					K5M delta contactor	XTCE080F00_
					K3M star contactor	XTCE080F00_
					Mechanical interlock <sup>②</sup>	XTCEXMLG
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...FC1
					(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDF
40	60	125	150	<20	K1M main contactor	XTCE095F00_
					K5M delta contactor	XTCE095F00_
					K3M star contactor	XTCE080F00_
					Mechanical interlock <sup>②</sup>	XTCEXMLG
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...FC1
					(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDF

#### Frame F—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
	220/230V	380/400V	415V	500V	660/690V	1000V			
140	37	75	75	90	90	—	<20	K1M main contactor	XTCE080F00_
								K5M delta contactor	XTCE080F00_
								K3M star contactor	XTCE080F00_
								Mechanical interlock <sup>②</sup>	XTCEXMLG
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...FC1
								(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDF
165	45	90	110	110	132	—	<20	K1M main contactor	XTCE095F00_
								K5M delta contactor	XTCE095F00_
								K3M star contactor	XTCE080F00_
								Mechanical interlock <sup>②</sup>	XTCEXMLG
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...FC1
								(2) auxiliary contacts (K1M, K3M)	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDF

#### Notes

- ① Underscore (\_) indicates magnet coil suffix required. See **Page V5-T1-62**.
- ② If mechanical interlock of star contactor is required, it must be the same frame size of the delta contactor or use the same mechanical interlock, see **Page V5-T1-73** for mechanical interlocks. (Example: XTCE...L22\_ and XTCE...M22\_ both use mechanical interlock XTCEXMLM.)

## Frame G—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
200V	230V	460V	575V			
50	60	125	150	<20	K1M main contactor	XTCE115G00_
					K5M delta contactor	XTCE115G00_
					K3M star contactor	XTCE080F00_
					Mechanical interlock	XTCEXMLG
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...GC1
					(2) auxiliary contacts	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDLG
75	100	200	250	<20	K1M main contactor	XTCE150G00_
					K5M delta contactor	XTCE150G00_
					K3M star contactor	XTCE080F00_
					Mechanical interlock	XTCEXMLG
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...GC1
					(2) auxiliary contacts	XTCEXFBG11
					(1) auxiliary contact (K5M)	XTCEXFBG31
					Star-delta link kit	XTCEXSDLG

## Frame G—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
	220/230V	380/400V	415V	500V	660/690V	1000V			
200	55	110	132	132	160	—	<20	K1M main contactor	XTCE115G00_
								K5M delta contactor	XTCE115G00_
								K3M star contactor	XTCE080F00_
								Mechanical interlock	XTCEXMLG
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...GC1
								(2) auxiliary contacts	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDLG
260	75	132	148	160	160	—	<20	K1M main contactor	XTCE150G00_
								K5M delta contactor	XTCE150G00_
								K3M star contactor	XTCE080F00_
								Mechanical interlock	XTCEXMLG
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...GC1
								(2) auxiliary contacts	XTCEXFBG11
								(1) auxiliary contact (K5M)	XTCEXFBG31
								Star-delta link kit	XTCEXSDLG

**Note**

<sup>①</sup> Underscore ( ) indicates magnet coil suffix required. See Page V5-T1-62.

#### Frame L—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
200V	230V	460V	575V			
125	150	300	400	<30	K1M main contactor	XTCS250L22_
					K5M delta contactor	XTCS250L22_
					K3M star contactor	XTCS250L22_
					Mechanical interlock	XTCEXMLM
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOB...LC1

#### Frame L—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
	220/230V	380/400V	415V	500V	660/690V	1000V			
430	132	250	300	315	400	200	<30	K1M main contactor	XTCS250L22_
								K5M delta contactor	XTCS250L22_
								K3M star contactor	XTCS250L22_
								Mechanical interlock	XTCEXMLM
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOB...LC1

#### Frame M—Maximum UL/CSA Ratings

Three-Phase hp Ratings				Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
200V	230V	460V	575V			
200	250	500	600	<20	K1M main contactor	XTCS400M22_
					K5M delta contactor	XTCS400M22_
					K3M star contactor	XTCS250L22_
					Mechanical interlock	XTCEXMLM
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOT...C3S
290	350	700	860	<30	K1M main contactor	XTCS500M22_
					K5M delta contactor	XTCS500M22_
					K3M star contactor	XTCS300M22_
					Mechanical interlock	XTCEXMLM
					K1T timing relay	XTTR6A60S51B
					Overload relay	XTOT...C3S

#### Frame M—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
	220/230V	380/400V	415V	500V	660/690V	1000V			
685	200	355	390	450	560	220	<20	K1M main contactor	XTCS400M22_
								K5M delta contactor	XTCS400M22_
								K3M star contactor	XTCS250L22_
								Mechanical interlock	XTCSXMLM
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S
860	250	450	500	560	600	220	<30	K1M main contactor	XTCS500M22_
								K5M delta contactor	XTCS500M22_
								K3M star contactor	XTCS300M22_
								Mechanical interlock	XTCEXMLM
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S

#### Notes

- ① Underscore ( ) indicates magnet coil suffix required. See **Page V5-T1-62**.
- ② If mechanical interlock of star contactor is required, it must be the same frame size of the delta contactor or use the same mechanical interlock, see **Page V5-T1-73** for mechanical interlocks. (Example: XTCE...L22\_ and XTCE...M22\_ both use mechanical interlock XTCEXMLM.)

Frame N—Maximum UL/CSA Ratings are not applicable.

### Frame N—Maximum IEC Ratings

AC-3 I <sub>e</sub> (A)	Three-Phase Motors 50–60 Hz						Max. Changeover Time (sec)	Component Description	Catalog Number <sup>①</sup>
	220/230V	380/400V	415V	500V	660/690V	1000V			
1000	300	560	610	710	900	355	<30	K1M main contactor	XTCE580N22_
								K5M delta contactor	XTCE580N22_
								K3M star contactor	XTCE580N22_
								Mechanical interlock <sup>②</sup>	XTCEXMLN
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S
1120	350	630	680	750	950	355	<30	K1M main contactor	XTCE650N22_
								K5M delta contactor	XTCE650N22_
								K3M star contactor	XTCE580N22_
								Mechanical interlock <sup>②</sup>	XTCEXMLN
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S
1290	400	710	760	900	1200	1400	<30	K1M main contactor	XTCE750N22_
								K5M delta contactor	XTCE750N22_
								K3M star contactor	XTCE580N22_
								Mechanical interlock	XTCEXMLN
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S
1400	450	800	850	950	1300	1400	<30	K1M main contactor	XTCE820N22_
								K5M delta contactor	XTCE820N22_
								K3M star contactor	XTCE580N22_
								Mechanical interlock	XTCEXMLN
								K1T timing relay	XTTR6A60S51
								Overload relay	XTOT...C3S
1700	560	1000	1050	1200	1700	1700	<20	K1M main contactor	XTCEC10N22_
								K5M delta contactor	XTCEC10N22_
								K3M star contactor	XTCE650N22_
								Mechanical interlock	XTCEXMLN
								K1T timing relay	XTTR6A60S51B
								Overload relay	XTOT...C3S

#### Notes

Main circuit: Depending on the coordination type required (that is, Type 1 or Type 2) it must be established whether the fuse protection and the input wiring for the main and delta contactors are to be common or separate.

Control circuit: If the combinations are used in the scope of the IEC/EN 60 204-1, VDE 0113 part 1, point 9.1.1 regarding the supply of control circuits is to be observed.

<sup>①</sup> Underscore ( \_ ) indicates magnet coil suffix required. See [Page V5-T1-62](#).

<sup>②</sup> If mechanical interlock of star contactor is required, it must be the same frame size of the delta contactor or use the same mechanical interlock, see [Page V5-T1-73](#) for mechanical interlocks. (Example: XTCE...L22\_ and XTCE...M22\_ both use mechanical interlock XTCEXMLM.)



#### Spare Auxiliary Contacts

AC-3	K1M	K3M	K5M
12–55			
90–260		—	—
315–1700			

#### Magnet Coil Suffix

Coil Voltage	Suffix Code
<b>Frames A–B</b>	
110V 50 Hz, 120V 60 Hz	<b>A</b>
220V 50 Hz, 240V 60 Hz	<b>B</b>
230V 50 Hz	<b>F</b>
24V 50/60 Hz	<b>T</b>
24 Vdc	<b>TD</b>
415V 50 Hz, 480V 60 Hz	<b>C</b>
600V 60 Hz	<b>D</b>
208V 60 Hz	<b>E</b>
190V 50 Hz, 220V 60 Hz	<b>G</b>
240V 50 Hz, 277V 60 Hz	<b>H</b>
380V 50 Hz, 440V 60 Hz	<b>L</b>
400V 50 Hz	<b>N</b>
380V 60 Hz	<b>P</b>
12V 50/60 Hz	<b>R</b>
42V 50 Hz, 48V 60 Hz	<b>W</b>
48V 50 Hz	<b>Y</b>
120 Vdc	<b>AD</b>
220 Vdc	<b>BD</b>
12 Vdc	<b>RD</b>
48 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frames C–F</b>	
110V 50 Hz, 120V 60 Hz	<b>A</b>
220V 50 Hz, 240V 60 Hz	<b>B</b>
230V 50 Hz	<b>F</b>
24V 50/60 Hz	<b>T</b>
24–27 Vdc	<b>TD</b>
415V 50 Hz, 480V 60 Hz	<b>C</b>
600V 60 Hz	<b>D</b>
208V 60 Hz	<b>E</b>
190V 50 Hz, 220V 60 Hz	<b>G</b>
240V 50 Hz, 277V 60 Hz	<b>H</b>
380V 50 Hz, 440V 60 Hz	<b>L</b>
400V 50 Hz	<b>N</b>
380V 60 Hz	<b>P</b>
12V 50/60 Hz	<b>R</b>
42V 50 Hz, 48V 60 Hz	<b>W</b>
48V 50 Hz	<b>Y</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
48–60 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frame G</b>	
100–120V 50/60 Hz	<b>A</b>
190–240V 50/60 Hz	<b>B</b>
24V 50/60 Hz	<b>T</b>
24–27 Vdc	<b>TD</b>
480–500V 50/60 Hz	<b>C</b>
380–440V 50/60 Hz	<b>L</b>
42–48V 50/60 Hz	<b>W</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
48–60 Vdc	<b>WD</b>
<b>Frame H</b>	
100–120V 50/60 Hz	<b>A</b>
190–240V 50/60 Hz	<b>B</b>
480–500V 50/60 Hz	<b>C</b>
380–440V 50/60 Hz	<b>L</b>
24V 50/60Hz	<b>T</b>
42–48V 50/60Hz	<b>W</b>
110–130 Vdc	<b>AD</b>
200–240 Vdc	<b>BD</b>
24–27 Vdc	<b>TD</b>
48–60 Vdc	<b>WD</b>

Coil Voltage	Suffix Code
<b>Frames L–N</b>	
110–250 Vdc 40–60 Hz	<b>A</b>
250–500V 40–60 Hz	<b>C</b>
48–110 Vdc 40–60 Hz	<b>Y</b>
24–48 Vdc	<b>TD</b> <sup>①</sup>
<b>Frames L–M, S-Series</b>	
110–120V 50/60 Hz	<b>A</b>
220–240V 50/60 Hz	<b>B</b>
<b>Frames P–R</b>	
230–250 Vdc 50–60 Hz	<b>B</b>

#### Overload Relay Settings (A)

Setting	Starting
<b>A:</b> $I_N \times 0.58$ Motor protection in the star (wye) and delta configurations	≤15 sec
<b>B:</b> $I_N \times 1$ Only partial motor protection in star position	15–40 sec
<b>C:</b> $I_N \times 0.58$ Motor not protected in star (wye) position	>40 sec
Timing relay set to approximately 10 sec	

#### Note

① Frames L–M only.

**Engineering Notes for XTCC and XTCE Contactors for Power Factor Correction****Individual Compensation, Open Version**

Catalog Number	Switching Duty in kVAR			
	230V	400V, 420V, 440V	525V	690V
XTCE007B	1.5	3	3.5	5
XTCE009B	2	4	4.5	6
XTCE012B	2.5	4.5	5.5	7
XTCE015B	2.5	4.5	5.5	7
XTCE018C	6.5	12	14.5	19
XTCE025C	7	13.5	16	21
XTCE032C	7.5	14.5	17	22.5
XTCE040D	11	20.5	24.5	32
XTCE050D	11.5	22	26	34.5
XTCE065D	12.5	23.5	28	37
XTCE080F	16	30.5	36.5	48
XTCE095F	18	34	41	54
XTCE115G	24	46	54.5	72
XTCE150G	28	53	63.5	83.5
XTCE580N	175	300	400	300

**Group Compensation, with Reactor, Open Version**

Catalog Number	Switching Duty in kVAR			
	230V	400V, 420V, 440V	525V	690V
XTCE007B	4	7	7.5	12
XTCE009B	5	8	10	14
XTCE012B	5.5	1	12	16
XTCE015B	5.5	10	12	16
XTCE018C	7.5	16	20	28
XTCE025C	9	18	23	30
XTCE032C	10	20	24	32
XTCE040D	13	25	30	40
XTCE050D	16	30	36	48
XTCE065D	19	36	43	57
XTCE080F	30	58	68	90
XTCE095	34	6	7	10
XTCE115G	44	8	100	125
XTCE150	5	97	115	152
XTCE250L	110	190	260	340
XTCE400M	160	280	370	480
XTCE500M	220	390	500	680

**Group Compensation, without Reactor, Open Version**

Catalog Number	Switching Duty in kVAR			
	230V	400V, 420V, 440V	525V	690V
XTCC020C	11	20	25	33.3
XTCC025C	15	25	33.3	40
XTCC033D	20	33.3	40	55
XTCC050D	25	50	65	85
XTCE580N	145	250	333	250