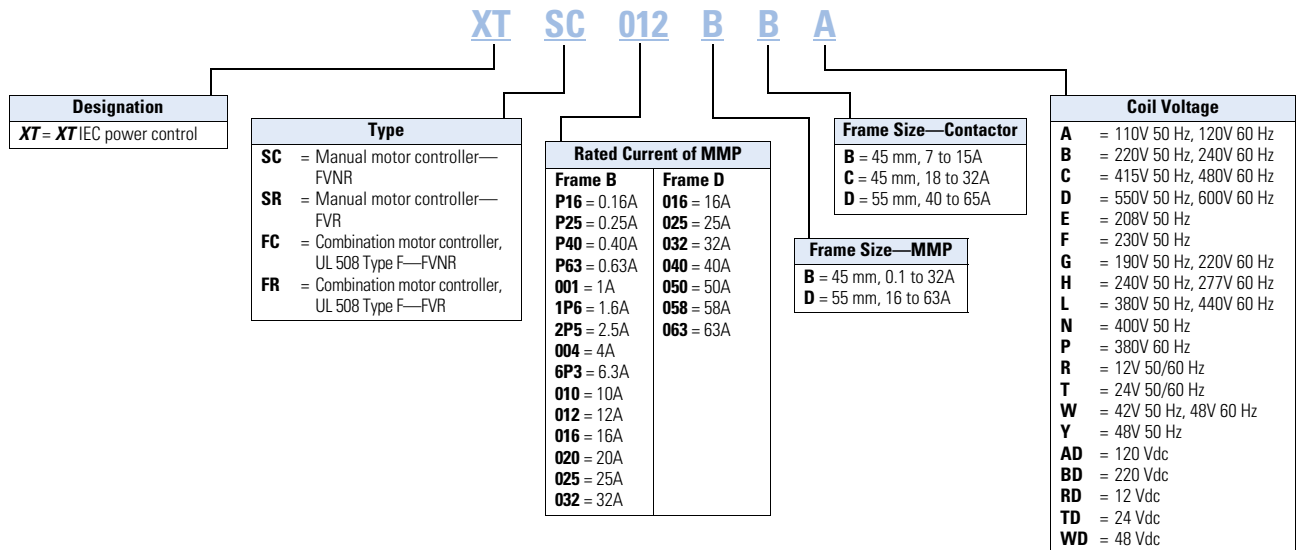


Catalog Number Selection

Combination Motor Controllers



Product Selection

XTSC and XTSCR Manual Motor Controllers (MMC)/Starter Combinations

Frame B MMP +
Frame B ContactorFactory-Assembled Manual Motor Controller—Frame B MMP + Frame B Contactor—
Maximum UL Ratings ①

FLA Adjustment
Range/Overload
Release— I_r
(Amps)



	Short-Circuit Release— I_{rm} (Amps)	Three-Phase				Assembled Manual Motor Controller ②	
		200V	240V	480V	600V	Non-Reversing Catalog Number	Reversing Catalog Number
0.1–0.16	3.2	③	③	1/2	1/2	XTSCP16BB_	XTSRP16BB_
0.16–0.25	3.5	③	③	1/2	1/2	XTSCP25BB_	XTSRP25BB_
0.25–0.4	5.6	③	③	1/2	1/2	XTSCP40BB_	XTSRP40BB_
0.4–0.63	8.82	③	③	1/2	1/2	XTSCP63BB_	XTSRP63BB_
0.63–1	14	③	③	1/2	1/2	XTSC001BB_	XTSR001BB_
1–1.6	22.4	③	③	3/4	1	XTSC1P6BB_	XTSR1P6BB_
1.6–2.5	35	1/2	1/2	1	1-1/2	XTSC2P5BB_	XTSR2P5BB_
2.5–4	56	1	1	2	3	XTSC004BB_	XTSR004BB_
4–6.3	88.2	1-1/2	1-1/2	3	5	XTSC6P3BB_	XTSR6P3BB_
6.3–10	140	3	3	7-1/2	3	XTSC010BB_	XTSR010BB_
8–12	168	3	3	7-1/2	3	XTSC012BB_	XTSR012BB_
10–16	224	3	3	10	3	XTSC016BB_	—

Notes

① Select manual motor controllers by full load amperes. Maximum motor ratings (kW, hp) are for reference only.

② Underscore (_) indicates magnetic coil suffix required. See Page V5-T1-200.

③ In this range, calculate motor rating according to rated current. Specified values to NEC 430.6(A)(1).

1

Frame B MMP +
Frame B Contactor



Factory-Assembled Motor Protective Device with Thermal and Magnetic Trip + Contactor— Maximum IEC Ratings^①

FLA Adjustment
Range/Overload
Release— I_r
(Amps)



FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_m (Amps)	Three-Phase				Assembled Manual Motor Controller ^②	
		220– 240V	380– 415V	500V	660– 690V	Non-Reversing Catalog Number	Reversing Catalog Number
0.1–0.16	3.2	—	—	—	0.06	XTSCP16BB_	XTSRP16BB_
0.16–0.25	3.5	—	0.06	0.06	0.12	XTSCP25BB_	XTSRP25BB_
0.25–0.4	5.6	0.06	0.09	0.12	0.18	XTSCP40BB_	XTSRP40BB_
0.4–0.63	8.82	0.09	0.18	0.25	0.25	XTSCP63BB_	XTSRP63BB_
0.63–1	14	0.12	0.25	0.37	0.55	XTSC001BB_	XTSR001BB_
1–1.6	22.4	0.25	0.55	0.75	1.1	XTSC1P6BB_	XTSR1P6BB_
1.6–2.5	35	0.37	0.75	1.1	1.5	XTSC2P5BB_	XTSR2P5BB_
2.5–4	56	0.75	1.5	2.2	3	XTSC004BB_	XTSR004BB_
4–6.3	88.2	1.1	2.2	3	4	XTSC6P3BB_	XTSR6P3BB_
6.3–10	140	2.2	4	4	7.5	XTSC010BB_	XTSR010BB_
8–12	168	3	5.5	5.5	11	XTSC012BB_	XTSR012BB_
10–16	224	4	7.5	9	12.5	XTSC016BB_	—

Frame B MMP +
Frame C Contactor



Factory-Assembled Manual Motor Controller—Frame B MMP + Frame C Contactor— Maximum UL Ratings^①

FLA Adjustment
Range/Overload
Release— I_r
(Amps)



FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_m (Amps)	Three-Phase				Assembled Manual Motor Controller ^②	
		200V	240V	480V	600V	Non-Reversing Catalog Number	Reversing Catalog Number
10–16	224	3	3	10	10	XTSC016BC_	XTSR016BC_
16–20	280	5	5	10	15	XTSC020BC_	XTSR020BC_
20–25	350	5	7-1/2	15	20	XTSC025BC_	XTSR025BC_
25–32	448	7-1/2	10	20	25	XTSC032BC_	XTSR032BC_

Frame B MMP +
Frame C Contactor



Factory-Assembled Manual Motor Controller—Frame B MMP + Frame C Contactor— Maximum IEC Ratings^①

FLA Adjustment
Range/Overload
Release— I_r
(Amps)



FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_m (Amps)	Three-Phase				Assembled Manual Motor Controller ^②	
		220– 240V	380– 415V	500V	660– 690V	Non-Reversing Catalog Number	Reversing Catalog Number
10–16	224	4	7.5	9	12.5	XTSC016BC_	XTSR016BC_
16–20	280	5.5	9	12.5	15	XTSC020BC_	XTSR020BC_
20–25	350	5.5	11	15	22	XTSC025BC_	XTSR025BC_
25–32	448	7.5	15	22	30	XTSC032BC_	XTSR032BC_

Notes

- ① Select manual motor controllers by full load amperes. Maximum motor ratings (kW, hp) are for reference only.
- ② Underscore (_) indicates magnetic coil suffix required. See **Page V5-T1-200**.

Frame D MMP +
Frame C ContactorFactory-Assembled Manual Motor Controller—Frame D MMP + Frame C Contactor—
Maximum UL Ratings ①

FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_{rm} (Amps)	Three-Phase				Assembled Manual Motor Controller ②	
		200V	240V	480V	600V	Non-Reversing Catalog Number	Reversing Catalog Number
10–16	224	3	5	10	15	XTSC016DC_	XTSR016DC_
16–25	350	5	7-1/2	15	20	XTSC025DC_	XTSR025DC_
25–32	448	7-1/2	10	25	30	XTSC032DC_	XTSR032DC_

Frame D MMP +
Frame C ContactorFactory-Assembled Manual Motor Controller—Frame D MMP + Frame C Contactor—
Maximum IEC Ratings ①

FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_{rm} (Amps)	Three-Phase				Assembled Manual Motor Controller ②	
		220– 240V	380– 415V	500V	660– 690V	Non-Reversing Catalog Number	Reversing Catalog Number
10–16	224	4	7.5	9	12.5	XTSC016DC_	XTSR016DC_
16–25	350	5.5	12.5	12.5	22	XTSC025DC_	XTSR025DC_
25–32	448	7.5	15	17.5	22	XTSC032DC_	XTSR032DC_

Frame D MMP +
Frame D ContactorFactory-Assembled Manual Motor Controller—Frame D MMP + Frame D Contactor—
Maximum UL Ratings ①

FLA Adjustment Range/Overload Release— I_r (Amps)	Short-Circuit Release— I_{rm} (Amps)	Three-Phase				Assembled Manual Motor Controller ②	
		200V	240V	480V	600V	Non-Reversing Catalog Number	Reversing Catalog Number
32–40	560	10	15	30	30	XTSC040DD_	XTSR040DD_
40–50	700	15	15	30	—	XTSC050DD_	XTSR050DD_
50–58	812	15	15	40	—	XTSC058DD_	XTSR058DD_
55–65	882	15	15	40	—	XTSC063DD_	XTSR063DD_

Notes

- ① Select manual motor controllers by full load amperes. Maximum motor ratings (kW, hp) are for reference only.
 ② Underscore (_) indicates magnetic coil suffix required. See **Page V5-T1-200**.

**Frame D MMP +
Frame D Contactor**



**Factory-Assembled Manual Motor Controller—Frame D MMP + Frame D Contactor—
Maximum IEC Ratings ①**

**FLA Adjustment
Range/Overload
Release— I_r
(Amps)**



	Short-Circuit Release— I_m (Amps)	Three-Phase				Assembled Manual Motor Controller ②	
		220– 240V	380– 415V	500V	660– 690V	Non-Reversing Catalog Number	Reversing Catalog Number
32–40	560	11	20	22	30	XTSC040DD_	XTSR040DD_
40–50	700	14	25	30	45	XTSC050DD_	XTSR050DD_
50–58	812	17	30	37	55	XTSC058DD_	XTSR058DD_
55–65	882	18.5	34	37	55	XTSC063DD_	XTSR063DD_

AC and DC Coil Suffixes

Coil Voltage	Suffix Code
Frame B Contactors	
110V 50 Hz, 120V 60 Hz	A
220V 50 Hz, 240V 60 Hz	B
230V 50 Hz	F
24V 50/60 Hz	T
24 Vdc	TD ③
415V 50 Hz, 480V 60 Hz	C
550V 50 Hz, 600V 60 Hz	D
208V 60 Hz	E
190V 50 Hz, 220V 60 Hz	G
240V 50 Hz, 277V 60 Hz	H

Coil Voltage	Suffix Code
380V 50 Hz, 440V 60 Hz	L
400V 50 Hz	N
380V 60 Hz	P
12V 50/60 Hz	R
42V 50 Hz, 48V 60 Hz	W
48V 50 Hz	Y
120 Vdc	AD ③
220 Vdc	BD ③
12 Vdc	RD ③
48 Vdc	WD ③

Coil Voltage	Suffix Code
Frame C and D Contactors	
110V 50 Hz, 120V 60 Hz	A
220V 50 Hz, 240V 60 Hz	B
230V 50 Hz	F
24V 50/60 Hz	T
24–27 Vdc	TD ③
415V 50 Hz, 480V 60 Hz	C
550V 50 Hz, 600V 60 Hz	D
208V 60 Hz	E
190V 50 Hz, 220V 60 Hz	G
240V 50 Hz, 277V 60 Hz	H

Coil Voltage	Suffix Code
380V 50 Hz, 440V 60 Hz	L
400V 50 Hz	N
380V 60 Hz	P
12V 50/60 Hz	R
42V 50 Hz, 48V 60 Hz	W
48V 50 Hz	Y
110–130 Vdc	AD ③
200–240 Vdc	BD ③
12–14 Vdc	RD ③
48–60 Vdc	WD ③

Notes

The assembled manual motor controller (MMC) consists of an XTPR manual motor protector (MMP) and an XTCE contactor. For Frame B MMP + Frame B contactor assemblies, the XTSC and XTSR can be mounted directly on DIN rail without an adapter. The contactors are supported mechanically with a mechanical connection element (included in XTPAXTPCB, XTPAXRPCR). For MMCs using a Frame C or Frame D contactor, the assembly is mounted via a DIN rail adapter plate (XTPAXTPCPC, XTPAXTPCPD) and the electrical connection is made with electrical contact modules (XTPAXECMC, XTPAXECMD), both included in XTPAXTPCC and XTPAXTPCD.

Service Factor (SF)—Setting I_r of current scale in dependence of load factor:

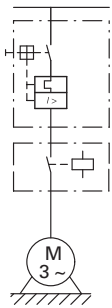
$$SF = 1.15 \rightarrow I_r = 1 \times I_{n \text{ mot}}$$

$$SF = 1 \rightarrow I_r = 0.9 \times I_{n \text{ mot}}$$

Single-phasing sensitivity to IEC/EN 60947-4-1, VDE 0660 Part 102.

- ① Select manual motor controllers by full load amperes. Maximum motor ratings (kW, hp) are for reference only.
- ② Underscore (_) indicates magnetic coil suffix required. See AC and DC coil suffixes above.
- ③ With DC operation: Integrated diode-resistor combination, coil rating 2.6W.

**Non-Reversing Manual
Motor Controller Power
Circuit**



**Reversing Manual
Motor Controller Power
Circuit**

