

Product Selection

120V ac, Single-Phase Drives (50/60 Hz)

Drive Ratings				IP20, NEMA/UL Open Type
kW	Hp	Output Current	Frame Size	Cat. No.
		A		
0.2	0.25	1.6	A	22F-V1P6N103
0.4	0.5	2.5	A	22F-V2P5N103
0.75	1	4.5	B	22F-V4P5N103
1.1	1.5	6	B	22F-V6P0N103

240V ac, Single-Phase Drives (50/60 Hz)

Drive Ratings				IP20, NEMA/UL Open Type	w/Integral "S Type" EMC Filter ‡
kW	Hp	Output Current	Frame Size	Cat. No.	Cat. No.
		A			
0.2	0.25	1.6	A	22F-A1P6N103	22F-A1P6N113
0.4	0.5	2.5	A	22F-A2P5N103	22F-A2P5N113
0.75	1	4.2	A	22F-A4P2N103	22F-A4P2N113
1.5	2	8	B	22F-A8P0N103	22F-A8P0N113
2.2	3	11	B	22F-A011N103	22F-A011N113

‡ This filter is suitable for use with a cable length of up to 5 meters for class A environments and up to 1 meter for class B environments.

240V ac, Three-Phase Drives (50/60 Hz)

Drive Ratings				IP20, NEMA/UL Open Type
kW	Hp	Output Current	Frame Size	Cat. No.
		A		
0.2	0.25	1.6	A	22F-B1P6N103
0.4	0.5	2.5	A	22F-B2P5N103
0.75	1	4.2	A	22F-B4P2N103
1.5	2	8	A	22F-B8P0N103
2.2	3	12	B	22F-B012N103
3.7	5	17.5	B	22F-B017N103
w/Brake				
5.5	7.5	25	C	22F-B025N104
7.5	10	33	C	22F-B033N104

480V ac, Three-Phase Drives (50/60 Hz)

Drive Ratings				IP20, NEMA/UL Open Type	w/Integral "S Type" EMC Filter ‡
kW	Hp	Output Current	Frame Size	Cat. No.	Cat. No.
		A			
0.4	0.5	1.5	A	22F-D1P5N103	22F-D1P5N113
0.75	1	2.5	A	22F-D2P5N103	22F-D2P5N113
1.5	2	4.2	B	22F-D4P2N103	22F-D4P2N113
2.2	3	6	B	22F-D6P0N103	22F-D6P0N113
3.7	5	8.7	B	22F-D8P7N103	22F-D8P7N113
w/Brake					
5.5	7.5	13	C	22F-D013N104	22F-D013N114
7.5	10	18	C	22F-D018N104	22F-D018N114
11	15	24	C	22F-D024N104	22F-D024N114

‡ This filter is suitable for use with a cable length of up to 10 meters for Class A environments.

Specifications

Drive Ratings									
Catalog Number	Output Ratings		Input Ratings			Branch Circuit Protection			
	kW (HP)	Amps	Voltage Range	kVA	Amps	Fuses	140M Motor Protectors ⁽²⁾ (3)	Contactors	Min. Enclosure Volume ⁽⁴⁾ (in. ³)
100 - 120V AC (±10%) – 1-Phase Input, 0 - 230V 3-Phase Output									
22F-V1P6N103	0.2 (0.25)	1.6	90-126	0.8	6.4	10	140M-C2E-C10	100-C09	1655
22F-V2P5N103	0.4 (0.5)	2.5	90-126	1.1	9.0	15	140M-C2E-C16	100-C12	1655
22F-V4P5N103	0.75 (1.0)	4.5	90-126	2.2	18.0	30	140M-D8E-C20	100-C23	1655
22F-V6P0N103	1.1 (1.5)	6.0	90-126	2.9	24.0	40	140M-F8E-C32	100-C30	1655
200 - 240V AC (±10%) – 1-Phase Input, 0 - 230V 3-Phase Output									
22F-A1P6N103	0.2 (0.25)	1.6	180-265	0.7	5.3	10	140M-C2E-B63	100-C09	1655
22F-A2P5N103	0.4 (0.5)	2.5	180-265	1.6	6.5	10	140M-C2E-C10	100-C09	1655
22F-A4P2N103	0.75 (1.0)	4.2	180-265	2.0	8.2	15	140M-C2E-C16	100-C12	1655
22F-A8P0N103	1.5 (2.0)	8.0	180-265	5.4	22.3	35	140M-D8E-C25	100-C23	1655
22F-A011N103	2.2 (3.0)	11.0	180-265	5.9	24.3	40	140M-F8E-C32	100-C30	1655
200 - 240V AC (±10%) – 1-Phase Input, 0 - 230V 3-Phase Output, with Filter									
22F-A1P6N113	0.2 (0.25)	1.6	180-265	1.3	5.3	10	140M-C2E-B63	100-C09	1655
22F-A2P5N113	0.4 (0.5)	2.5	180-265	1.6	6.5	10	140M-C2E-C10	100-C09	1655
22F-A4P2N113	0.75 (1.0)	4.2	180-265	2.0	8.2	15	140M-C2E-C16	100-C12	1655
22F-A8P0N113	1.5 (2.0)	8.0	180-265	5.4	22.3	35	140M-D8E-C25	100-C23	1655
22F-A011N113	2.2 (3.0)	11.0	180-265	5.9	24.3	40	140M-F8E-C32	100-C30	1655
200 - 240V AC (±10%) – 3-Phase Input, 0 - 230V 3-Phase Output									
22F-B1P6N103	0.2 (0.25)	1.6	180-265	0.8	1.9	3	140M-C2E-B25	100-C09	1655
22F-B2P5N103	0.4 (0.5)	2.5	180-265	1.2	2.7	6	140M-C2E-B40	100-C09	1655
22F-B4P2N103	0.75 (1.0)	4.2	180-265	2.1	4.9	10	140M-C2E-B63	100-C09	1655
22F-B8P0N103	1.5 (2.0)	8.0	180-265	4.0	9.5	15	140M-C2E-C16	100-C12	1655
22F-B012N103	2.2 (3.0)	12.0	180-265	6.3	15.0	25	140M-C2E-C20	100-C23	1655
22F-B017N103	3.7 (5.0)	17.5	180-265	8.8	21.1	35	140M-F8E-C25	100-C23	1655
22F-B025N104 ⁽¹⁾	5.5 (7.5)	25.0	180-265	11.4	27.2	45	140M-F8E-C32	100-C37	3441
22F-B033N104 ⁽¹⁾	7.5 (10.0)	33.0	180-265	16.1	38.5	60	140M-F8E-C45	100-C60	3441
380 - 480V AC (±10%) – 3-Phase Input, 0 - 460V 3-Phase Output									
22F-D1P5N103	0.4 (0.5)	1.5	340-528	1.5	1.8	3	140M-C2E-B25	100-C09	1655
22F-D2P5N103	0.75 (1.0)	2.5	340-528	3.0	3.5	6	140M-C2E-B40	100-C09	1655
22F-D4P2N103	1.5 (2.0)	4.2	340-528	5.0	6.0	10	140M-C2E-C10	100-C09	1655
22F-D6P0N103	2.2 (3.0)	6.0	340-528	5.2	6.2	10	140M-C2E-C10	100-C09	1655
22F-D8P7N103	3.7 (5.0)	8.7	340-528	7.0	8.3	15	140M-C2E-C16	100-C12	1655
22F-D013N104 ⁽¹⁾	5.5 (7.5)	13.0	340-528	12.9	15.4	25	140M-D8E-C20	100-C23	3441
22F-D018N104 ⁽¹⁾	7.5 (10.0)	18.0	340-528	16.3	19.5	30	140M-F8E-C25	100-C23	3441
22F-D024N104 ⁽¹⁾	11.0 (15.0)	24.0	340-528	21.7	26.1	40	140M-F8E-C32	100-C30	3441
380 - 480V AC (±10%) – 3-Phase Input, 0 - 460V 3-Phase Output, with Filter									
22F-D1P5N113	0.4 (0.5)	1.5	340-528	1.5	1.8	3	140M-C2E-B25	100-C09	1655
22F-D2P5N113	0.75 (1.0)	2.5	340-528	3.0	3.5	6	140M-C2E-B40	100-C09	1655
22F-D4P2N113	1.5 (2.0)	4.2	340-528	5.0	6.0	10	140M-C2E-C10	100-C09	1655
22F-D6P0N113	2.2 (3.0)	6.0	340-528	5.2	6.2	10	140M-C2E-C10	100-C09	1655
22F-D8P7N113	3.7 (5.0)	8.7	340-528	7.0	8.3	15	140M-C2E-C16	100-C12	1655
22F-D013N114 ⁽¹⁾	5.5 (7.5)	13.0	340-528	12.9	15.4	25	140M-D8E-C20	100-C23	3441
22F-D018N114 ⁽¹⁾	7.5 (10.0)	18.0	340-528	16.3	19.5	30	140M-F8E-C25	100-C23	3441
22F-D024N114 ⁽¹⁾	11.0 (15.0)	24.0	340-528	21.7	26.1	40	140M-F8E-C32	100-C30	3441

(1) Catalog suffix ending with '4', such as N104 and N114, indicate that an internal brake IGBT is supplied.

(2) The AIC ratings of the Bulletin 140M Motor Protector Circuit Breakers may vary. See [Bulletin 140M Motor Protection Circuit Breakers Application Ratings](#).

(3) Manual Self-Protected (Type E) Combination Motor Controller, UL listed for 208 Wye or Delta, 240 Wye or Delta, 480Y/277 or 600Y/347. Not UL listed for use on 480V or 600V Delta/Delta, corner ground, or high-resistance ground systems.

(4) When using a Manual Self-Protected (Type E) Combination Motor Controller, the drive must be installed in a ventilated or non-ventilated enclosure with the minimum volume specified in this column. Application specific thermal considerations may require a larger enclosure.