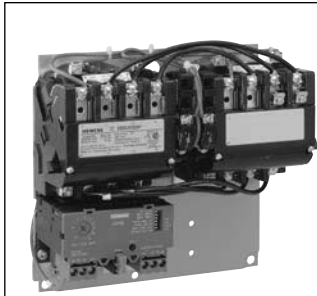


Reversing Heavy Duty Starters

Solid State Overload, Class 22

Selection



Ordering Information

- ▶ Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.
- ▶ Field Modification Kits see page 17-93.
- ▶ Factory Modifications see page 17-108.
- ▶ Dimensions see page 17-118 open and 17-134 enclosed.
- ▶ Wiring Diagrams see page 17-147.

Coil Table

60Hz Voltage	Letter
24 Separate Control	J
120 Separate Control	F
110–120/220–240 [Ⓣ]	A
200–208	D
220–240	G
277	L
220–240/440–480 [Ⓣ]	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 17-108.

Open Type & Standard Width Enclosure, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Amp Range	Frame Size	Enclosure											
200 Volts	230 Volts	460 Volts	575 Volts					Open Type Standard Auxiliary Contacts [Ⓣ]	NEMA 1 General Purpose		NEMA 4/4X Stainless [Ⓣ] Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 7 & 9 NEMA 3 & 4 Div. 1 and Div. 2 Class I Groups C & D Class II Groups E, F & G Class III Bolted Enclosures Indoor/ Outdoor Use		NEMA 12 NEMA 3/3R [Ⓣ] Industrial Use Weatherproof (Field Convertible to 3/3R)		
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
1/4	1/4	1/4	1/4	00	—	0.25–1	A	22BUA32A*	22BUA32B*	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—		
1/2	1/2	1 1/2	2	00	—	0.75–3.4	A	22BUB32A*	22BUB32B*	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—		
1 1/2	1 1/2	2	—	00	—	3–12	A1	22BUC32A*	22BUC32B*	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—		
1/4	1/4	1/2	1/2	0	—	0.25–1	A	22CUA32A*	22CUA32B*	22CUA32W*	22CUA32F*	22CUA32H*	22CUA320*	22CUA320*	22CUA320*	22CUA320*	22CUA320*		
1/2	1/2	1 1/2	2	0	—	0.75–3.4	A	22CUB32A*	22CUB32B*	22CUB32W*	22CUB32F*	22CUB32H*	22CUB320*	22CUB320*	22CUB320*	22CUB320*	22CUB320*		
2	2	5	5	0	—	3–12	A1	22CUC32A*	22CUC32B*	22CUC32W*	22CUC32F*	22CUC32H*	22CUC320*	22CUC320*	22CUC320*	22CUC320*	22CUC320*		
3	3	—	—	0	—	5.5–22	A1	22CUD32A*	22CUD32B*	22CUD32W*	22CUD32F*	22CUD32H*	22CUD320*	22CUD320*	22CUD320*	22CUD320*	22CUD320*		
1/4	1/4	1/2	1/2	1	—	0.25–1	A	22DUA32A*	22DUA32B*	22DUA32W*	22DUA32F*	22DUA32H*	22DUA320*	22DUA320*	22DUA320*	22DUA320*	22DUA320*		
1/2	1/2	1 1/2	2	1	—	0.75–3.4	A	22DUB32A*	22DUB32B*	22DUB32W*	22DUB32F*	22DUB32H*	22DUB320*	22DUB320*	22DUB320*	22DUB320*	22DUB320*		
2	2	5	5	1	—	3–12	A1	22DUC32A*	22DUC32B*	22DUC32W*	22DUC32F*	22DUC32H*	22DUC320*	22DUC320*	22DUC320*	22DUC320*	22DUC320*		
3	3	10	10	1	—	5.5–22	A1	22DUD32A*	22DUD32B*	22DUD32W*	22DUD32F*	22DUD32H*	22DUD320*	22DUD320*	22DUD320*	22DUD320*	22DUD320*		
7 1/2	7 1/2	—	—	1	—	10–40	A1	22DUE32A*	22DUE32B*	22DUE32W*	22DUE32F*	22DUE32H*	22DUE320*	22DUE320*	22DUE320*	22DUE320*	22DUE320*		
10	10	15	15	—	1 1/4	10–40	A1	22EUE32A*	22EUE32B*	22EUE32W*	22EUE32F*	22EUE32H*	22EUE320*	22EUE320*	22EUE320*	22EUE320*	22EUE320*		
10	15	25	25	2	—	13–52	B	22FUF32A*	22FUF32B*	22FUF32W*	22FUF32F*	22FUF32H*	22FUF320*	22FUF320*	22FUF320*	22FUF320*	22FUF320*		
15	20	30	30	—	2 1/4	25–100	B	22GUG32A*	22GUG32B*	22GUG32W*	22GUG32F*	22GUG32H*	22GUG320*	22GUG320*	22GUG320*	22GUG320*	22GUG320*		
25	30	50	50	3	—	25–100	B	22HUG32A*	22HUG32B*	22HUG32W*	22HUG32F*	22HUG32H*	22HUG320*	22HUG320*	22HUG320*	22HUG320*	22HUG320*		
30	40	75	75	—	3 1/4	50–200	B	22IUH32A*	22IUH32B*	22IUH32W*	22IUH32F*	22IUH32H*	22IUH320*	22IUH320*	22IUH320*	22IUH320*	22IUH320*		
40	50	100	100	4	—	50–200	B	22JUH32A*	22JUH32B*	22JUH32W*	22JUH32F*	22JUH32H*	22JUH320*	22JUH320*	22JUH320*	22JUH320*	22JUH320*		
75	100	200	200	5	—	55–250	—	22LPU32A*	22LPU32B*	22LPU32E* [Ⓣ]	—	—	—	—	—	—	22LPU320*		
150	200	400	400	6	—	160–630	—	22MPX32A*	22MPX32B*	22MPX32E* [Ⓣ]	—	—	—	—	—	—	22MPX320*		
—	300	600	600	7 [Ⓣ]	—	400–1220	A1+CT	22NUN32A*	22NUN32B*	—	—	—	—	—	—	—	22NUN320*		
—	450	900	900	8 [Ⓣ]	—	400–1220	A1+CT	22PUN32A*	22PUN32B*	—	—	—	—	—	—	—	22PUN320*		

Note: All starter sizes carry one maximum Hp rating (per the National Electric Code).

- Ⓣ Dual voltage coils not available in size 5–8 starters.
- Ⓣ For conduit hubs and conversion instructions, see page 17-99.

Ⓣ Enclosure is rated only NEMA 4 (painted steel).

- Ⓣ Only available
F coil 100–250V AC 50/60Hz, or DC
H coil 150–500V AC 50/60Hz, or DC

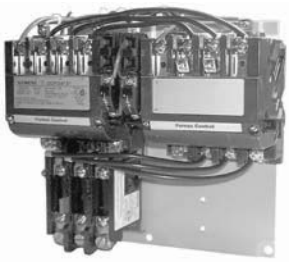
- Ⓣ Only available
F coil 100–250V AC 50/60Hz, or DC

Ⓣ Auxiliary contacts
22B–22E 4th pole built-in
22F–22J 2 NO & 2 NC

Reversing Heavy Duty Starters

Ambient Compensated Bimetal Overload with Manual and Auto Reset, Class 22

Selection

	Ordering Information	Coil Table																				
	<ul style="list-style-type: none"> ▶ Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ▶ Heater elements see page 17-163. Single phase starters require 1 heater element. 3-phase starters require 3 heater elements. ▶ Field Modification Kits see page 17-93. ▶ Factory Modifications see page 17-108. ▶ Dimensions see pages 17-118 open and 17-134 enclosed. ▶ Wiring Diagrams see page 17-146. ▶ Replacement Parts see page 17-170. 	<table border="1"> <thead> <tr> <th>60Hz Voltage</th> <th>Letter</th> </tr> </thead> <tbody> <tr><td>24 Separate Control</td><td>J</td></tr> <tr><td>120 Separate Control</td><td>F</td></tr> <tr><td>110-120/220-240</td><td>A</td></tr> <tr><td>200-208</td><td>D</td></tr> <tr><td>220-240</td><td>G</td></tr> <tr><td>277</td><td>L</td></tr> <tr><td>220-240/440-480</td><td>C</td></tr> <tr><td>440-480</td><td>H</td></tr> <tr><td>575-600</td><td>E</td></tr> </tbody> </table>	60Hz Voltage	Letter	24 Separate Control	J	120 Separate Control	F	110-120/220-240	A	200-208	D	220-240	G	277	L	220-240/440-480	C	440-480	H	575-600	E
	60Hz Voltage	Letter																				
24 Separate Control	J																					
120 Separate Control	F																					
110-120/220-240	A																					
200-208	D																					
220-240	G																					
277	L																					
220-240/440-480	C																					
440-480	H																					
575-600	E																					
<p>For other voltages and frequencies, see Factory Modifications page 17-108.</p>																						

Open Type & Standard Width Enclosure, 3-Phase, 3-Pole

Max Hp					Contactor Amp Rating	NEMA Size	Half Size	Enclosure									
200 Volts	230 Volts	460 Volts	575 Volts	Open Type [®]				NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant 304 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant Indoor/Outdoor Use		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Class III Bolted Enclosures		NEMA 12 ^① NEMA 3/3R Industrial Use Weatherproof	
200	230	460	575	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
1½	1½	2	2	9	00	—	22BP32A*81	22BP32B*81	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—	
3	3	5	5	18	0	—	22CP32A*81	22CP32B*81	22CP32W*81	22CP32F*81	22CP32H*81	22CP32J*81	22CP32K*81	22CP32L*81	22CP32M*81	22CP32N*81	
7½	7½	10	10	27	1	—	22DP32A*81	22DP32B*81	22DP32W*81	22DP32F*81	22DP32H*81	22DP32J*81	22DP32K*81	22DP32L*81	22DP32M*81	22DP32N*81	
10	10	15	15	40	—	1½	22EP32A*81	22EP32B*81	22EP32W*81	22EP32F*81	22EP32H*81	22EP32J*81	22EP32K*81	22EP32L*81	22EP32M*81	22EP32N*81	
10	15	25	25	45	2	—	22FP32A*81	22FP32B*81	22FP32W*81	22FP32F*81	22FP32H*81	22FP32J*81	22FP32K*81	22FP32L*81	22FP32M*81	22FP32N*81	
15	20	30	30	60	—	2½	22GP32A*81	22GP32B*81	22GP32W*81	22GP32F*81	22GP32H*81	22GP32J*81	22GP32K*81	22GP32L*81	22GP32M*81	22GP32N*81	
25	30	50	50	90	3	—	22HP32A*81	22HP32B*81	22HP32W*81	22HP32F*81	22HP32H*81	22HP32J*81	22HP32K*81	22HP32L*81	22HP32M*81	22HP32N*81	
30	40	75	75	115	—	3½	22IP32A*81	22IP32B*81	22IP32W*81	22IP32F*81	22IP32H*81	22IP32J*81	22IP32K*81	22IP32L*81	22IP32M*81	22IP32N*81	
40	50	100	100	135	4	—	22JG32A*81	22JG32B*81	22JG32W*81	22JG32F*81	22JG32H*81	22JG32J*81	22JG32K*81	22JG32L*81	22JG32M*81	22JG32N*81	

Open Type & Standard Width Enclosure, Single Phase, 3-Wire, 2-Pole[®]

Max Hp				Contactor Amp Rating	NEMA Size	Enclosure									
115 Volts	208/230 Volts	208/230	115			Open Type	NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant 304 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Class III Bolted Enclosures Indoor/Outdoor Use		NEMA 12 ^① NEMA 3/3R Industrial Use Weatherproof
115	208/230	208/230	115	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
½	1	9	00	22BP12A*81	22BP12B*81	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—
1	2	18	0	22CP12A*81	22CP12B*81	22CP12W*81	22CP12F*81	22CP12H*81	22CP12J*81	22CP12K*81	22CP12L*81	22CP12M*81	22CP12N*81	22CP12O*81	22CP12P*81
2	3	27	1	22DP12A*81	22DP12B*81	22DP12W*81	22DP12F*81	22DP12H*81	22DP12J*81	22DP12K*81	22DP12L*81	22DP12M*81	22DP12N*81	22DP12O*81	22DP12P*81
3	5	35	1P	22EP12A*81	22EP12B*81	22EP12W*81	22EP12F*81	22EP12H*81	22EP12J*81	22EP12K*81	22EP12L*81	22EP12M*81	22EP12N*81	22EP12O*81	22EP12P*81

Note: Hp's shown above are based on the overload amp range for the FLA's (per the National Electric Code) of typical industrial motors. All Starter Sizes carry one maximum Hp rating.

① For conduit hubs and conversion instructions, see page 17-99.

② Coil D, F, or G will be wired for Incoming Voltage. J coil will be wired for 24V separate source. Coils E, H, and L do not apply to single phase starters.

③ Auxiliary contacts 22B-22E 4th pole built-in 22F-22J 2 NO & 2 NC