

Heavy Duty Starters

Catalog Numbering System

General

[illegible]

			Solid-state OLR Current Range ^⑤							
Class		Size	Model	Type	Line Volts	Enclosure Type	Coil	Disconnect Type ^④		
36	—	Non	U — Solid-state OLR size 0–4 & size 7 & 8 P — Thermal, size 0–3½ Solid state size 5 & 6	T — Auto XFMR	2 — 230	A — Open	D	D — Non Fused Disc.		
		Combination		D — 1	P — Part Wind.	3 — 380	B — NEMA 1	E	F — Fusible Disc.	
		Reduced		E — 1¼	0 — Wye Delta	4 — 460	W — NEMA 4/4X	F	P — MCP	
		Voltage		F — 2	Open Trans.	5 — 575	Stainless Steel	G		
		Starter		G — 2½	Wye Delta	6 — 200/208	0 — NEMA 12	H		
37	—	Combination		Closed Trans.			L			
		Reduced			H — 3					
		Voltage			I — 3½					
		Starter			J — 4					
					L — 5					
					M — 6					
					N — 7					
		P — 8								

① Single phase solid-state OLR available on Class 14 Starters only.

② Not used on Class 17, 25 or with solid-state OLR versions.
③ Not available on sizes 5-8.

⑤ Position used for solid-state OLR only.
⑥ Not available on sizes 7 and 8.

Heavy Duty Starters

Features and Benefit

General



Solid State Starter Class 14

Standard Features

Size 00–4 magnetic starters include the following standard features:

- Rugged Industrial Design
- Half Sizes for Cost and Space Savings
- Dual Voltage, Dual Frequency Coils
- Solid State or Ambient Compensated Bimetal Overload Protection
- Wide Range of Accessories
- Easy Coil Access
- Overload Test Feature
- Straight Thru Wiring
- Gravity Dropout
- Large Silver Cadmium Contacts
- UL listed file #E14900 (class 14, 22, 30, 40 & 43)
- CSA certified file #LR 6535 (class 14, 22, 30, 40 & 43)

Application

Heavy Duty starters are designed for across the line starting of single phase and polyphase motors.

These controls are available in NEMA Sizes 00 through 8. In addition to the usual NEMA Starter Sizes, Siemens offers three exclusive Half Sizes; 1¾, 2½ and 3½. These integral sizes offer the same rugged, industrial construction as our NEMA Sizes and ensure efficient operating performance. Half Sizes provide a real cost savings by cutting down on over capacity when NEMA Sizes exceed the motor ratings. All Siemens Heavy Duty controls, including our popular Half Sizes comply with applicable NEMA and UL tests.

All starters are supplied with a NO holding interlock that in conjunction with an appropriate pilot device will provide low voltage protection or release.

NEMA starters are ideal for applications requiring dependability and durability. Typical applications include use with machine tools, air conditioning equipment, material handling equipment, compressors, hoists and various production and industrial equipment as well as in demanding automotive applications.

Starters are available as an open type or in NEMA 1, 12/3/3R, 4 (painted), 4/4X (stainless), 4X (fiberglass), and 7 & 9 enclosures.

Gravity Dropout

For added reliability, the gravity dropout of the armature and contacts is assisted by stainless steel springs which help provide quick, precise opening of the contacts.

45 Degree, Wedge Action Contacts

The 45 degree, wedge action contacts reduce tracking and provide faster arc quenching. The resulting self-cleaning and reduced contact bounce mean cooler operation and longer life for the large silver cadmium oxide contacts.

Terminal Design

Control terminals are self-rising pressure type.

Molded Coil

Magnetic coils are carefully wound and then sealed in epoxy. Encapsulation helps seal out moisture, promotes heat transfer and resists electrical, mechanical and thermal stresses.

Dual Voltage/Frequency Coil

Starters are available with dual voltage, dual frequency coils. They are designed to operate on either 50 or 60 Hertz.

Molded Stationary Contact Block

Thermoset materials resist arc tracking and the stresses of heat and severe impact.

Field Modification Kits

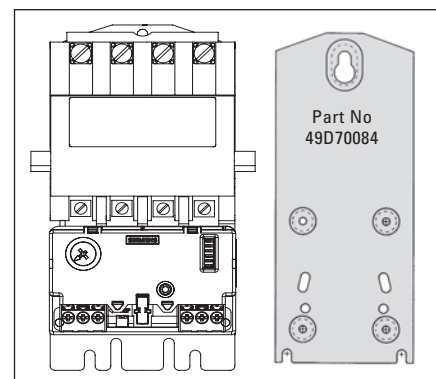
All starters can be modified in the field with a complete range of accessories. These include pushbuttons, selector switches, pilot lights, auxiliary contacts and surge suppressors.

Auxiliary Equipment

- NEMA starters are available with built-in START-STOP push buttons for 3-wire control or a HAND-OFF-AUTO selector switch for 2-wire control
- Field modifications such as auxiliary contacts, pilot lights, push buttons, selector switches, and fuse blocks

are available to meet particular application requirements

- Normally opened or normally closed auxiliary power pole kits are available for Sizes 00 through 1¾
- Transformers can be ordered as either factory or field modifications. In some cases these may require a larger enclosure
- A full line of replacement parts are available including contact kits, coils, and overload relays



Siemens Sizes 00–1¾ have as standard, universal mounting which fits the following:

Cutler Hammer—Citation Series
—Freedom Series

GE —300 Line

Square D —Type S

The Starter with its existing backplate mounts onto the piggyback mounting plate and is secured in place with three mounting screws. The piggyback mounting plate fits the following:

Allen-Bradley —Bulletin 509
—Bulletin 709

Westinghouse —Series A200

Size 5 & 6 Starters Additional Features

- Solid State Overload (3RB type) Standard
- Latest technology in arc quenching to extend contactor life
- Wide variety of enclosures in all starter configurations

Size 7 & 8 Starters Additional Features

- New Compact Design
- Can be mounted in any position
- Same coil voltage is AC or DC

Heavy Duty Starters

Features and Benefits

Selection



ESP200™ Solid State Starter

ESP200™ starters combine the rugged NEMA contactors with a state of the art solid state overload that provides phase loss, phase unbalance ground fault protection. It offers the user greater motor protection and extended life in heavy duty applications. The ESP200™ ultimately results in a cost savings to the user.

ESP200™ Solid State Overload Relays

Standard features provide Improved Starter Performance:

- True phase loss protection; trips within 3 seconds
- Phase unbalanced prevents motor running inefficiently
- Ground fault trip when selected
- Selectable trip class 5, 10, 20 or 30
- Reset trip can be selected Auto/ Manual restart
- Easy to select and use, Dip Switch selectable
- Overload is self powered, no need for external power source

Half Size Starters

Half-Size starters feature all the rugged performance characteristics of our NEMA rated starter sizes, but are fractionally sized to more closely match your exact motor rating. As a result, significant economic savings are made possible without sacrificing the reliability you expect from a heavy duty starter.

These additional starter sizes have the reserve capacity to handle occasional plugging and jogging applications without derating. Superior operating performance in heavy duty applications is assured by the large current carrying parts, not by derating the device.

Exclusive “half-sizes” save potentially hundreds, even thousands of dollars per project.

Using the table below, simply match the specific size starter to the horsepower rating of your motor. Every half-size starter saves you money—up to 31%.

All “half-sizes” comply to applicable NEMA and UL standards.

ESP200® FLA Adjustment Dial—Set the adjustment dial on the overload to the FLA of the motor.

Figure 1



Typical Solid-State Overload Adjustment Dial Markings

Each overload is precisely calibrated and labels are laser printed.



DIP Switch Settings

Adjust DIP switch settings to the Trip Class desired 5, 10, 20, or 30.

- Set Phase Unbalance ON or OFF
- Set Phase Loss ON or OFF
- Set Reset to Manual or Automatic
- Set Ground Fault ON or OFF

Savings for Siemens “Half-Size” Starters in NEMA 1 Enclosures, FVNR

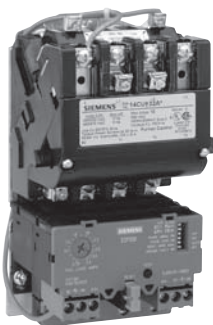
Motor Size		Starter Size	Half Size	List Price \$	“Half-Size” Savings Over Next Full Size
230V	460V				
7½	10	1	—		—
10	15	—	1¾		31%
15	25	2	—		—
20	30	—	2½		20%
30	50	3	—		—
40	75	—	3½		13%
50	100	4	—		—

Standard Auxiliary Contacts			
Type	Size (3rd Character)	Configuration	Internal / External
All FVNR Starters & Contactors	B Thru E	1N.O.	Internal
	F Thru J	1N.O.	External
	L Thru M	2N.O., 2N.C.	External
	N Thru P	1N.O., 1N.C.	External

Heavy Duty Motor Starters

Solid State Overload with Auto/Manual Reset, Class 14

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 17-102.
- Factory Modifications see page 17-117.
- Dimensions see pages 17-137 open and 17-153 enclosed.
- Wiring Diagrams see page 17-169.
- Replacement Parts see page 17-129.

Coil Table

60Hz Voltage	Letter
24	J
120	F
110–120/220–240 ^①	A
200–208	D
220–240	G
277	L
220–240/440–480 ^①	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 17-117.

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

Max Hp				Overload		Enclosure		NEMA 1 General Purpose		NEMA 4/4X Stainless ^② Watertight, Dust-tight, Corrosion Resistant ② = W for 304 Stainless Steel ② = X for 316 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 NEMA 3/3R ^③ Industrial Use Weatherproof (Field Convertible to 3/3R)	
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size	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	14BUA32A*		14BUB32B*		14BUB32B*		14BUB32B*		14BUB32B*	
1/2	1/2	1 1/2	2	00	—	0.75–3.4	A	14BUB32A*		14BUB32B*		14BUB32B*		14BUB32B*		14BUB32B*	
1 1/2	1 1/2	2	—	00	—	3–12	A1	14BUC32A*		14BUC32B*		14BUC32B*		14BUC32B*		14BUC32B*	
1/4	1/4	1/4	1/4	0	—	0.25–1	A	14CUA32A*		14CUB32B*		14CUB32B*		14CUB32B*		14CUB32B*	
1/2	1/2	1 1/2	2	0	—	0.75–3.4	A	14CUB32A*		14CUB32B*		14CUB32B*		14CUB32B*		14CUB32B*	
2	2	5	5	0	—	3–12	A1	14CUC32A*		14CUC32B*		14CUC32B*		14CUC32B*		14CUC32B*	
3	3	—	—	0	—	5.5–22	A1	14CUD32A*		14CUD32B*		14CUD32B*		14CUD32B*		14CUD32B*	
1/4	1/4	1/4	1/4	1	—	0.25–1	A	14DUA32A*		14DUB32B*		14DUB32B*		14DUB32B*		14DUB32B*	
1/2	1/2	1 1/2	2	1	—	0.75–3.4	A	14DUB32A*		14DUB32B*		14DUB32B*		14DUB32B*		14DUB32B*	
2	2	5	5	1	—	3–12	A1	14DUC32A*		14DUC32B*		14DUC32B*		14DUC32B*		14DUC32B*	
3	3	10	10	1	—	5.5–22	A1	14DUD32A*		14DUD32B*		14DUD32B*		14DUD32B*		14DUD32B*	
7 1/2	7 1/2	—	—	1	—	10–40	A1	14DUE32A*		14DUE32B*		14DUE32B*		14DUE32B*		14DUE32B*	
10	10	15	15	—	1 1/2	10–40	A1	14EUE32A*		14EUE32B*		14EUE32B*		14EUE32B*		14EUE32B*	
10	15	25	25	2	—	13–52	B	14FUF32A*		14FUF32B*		14FUF32B*		14FUF32B*		14FUF32B*	
15	20	30	30	—	2 1/2	25–100	B	14GUG32A*		14GUG32B*		14GUG32B*		14GUG32B*		14GUG32B*	
25	30	50	50	3	—	25–100	B	14HUG32A*		14HUG32B*		14HUG32B*		14HUG32B*		14HUG32B*	
30	40	75	75	—	3 1/2	50–200	B	14IUH32A*		14IUH32B*		14IUH32B*		14IUH32B*		14IUH32B*	
40	50	100	100	4	—	50–200	B	14JUH32A*		14JUH32B*		14JUH32B*		14JUH32B*		14JUH32B*	
75	100	200	200	5	—	55–250	—	14LPU32A*		14LPU32B*		14LPU32E* ^④		14LPU32H*		14LPU32H*	
150	200	400	400	6	—	160–630	—	14MPX32A*		14MPX32B*		14MPX32E* ^④		—		14MPX32H*	
—	300	600	600	7* ^⑤	—	400–1220	A1+CT	14NUN32A*		14NUN32B*		14NUN32E* ^④		—		14NUN32H*	
—	450	900	900	8 ^⑥	—	400–1220	A1+CT	14PUN32A*		14PUN32B*		14PUN32E* ^④		—		14PUN32H*	

Open Type & Standard Width Enclosure, Single Phase, 2-Pole^③

Max Hp			Overload		Enclosure											
					Open Type Standard Auxiliary Contacts		NEMA 1 General Purpose		NEMA 4/4X Stainless® Watertight, Dust-tight, Corrosion Resistant ® = W for 304 Stainless Steel ® = X for 316 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 NEMA 3/3R® Industrial Use Weatherproof (Field Convertible to 3/3R)	
115 Volts	208/230 Volts	NEMA Size	Amp Range	Frame Size	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
¼	¼	0	0.75–3.4	A	14CUB12A*		14CUB12B*		14CUB12®*		14CUB12F*		14CUB12H*		14CUB120*	
½	½	0	3–12	A1	14CUC12A*		14CUC12B*		14CUC12®*		14CUC12F*		14CUC12H*		14CUC120*	
1	2	0	5.5–22	A1	14CUD12A*		14CUD12B*		14CUD12®*		14CUD12F*		14CUD12H*		14CUD120*	
¼	¼	1	0.75–3.4	A	14DUB12A*		14DUB12B*		14DUB12®*		14DUB12F*		14DUB12H*		14DUB120*	
½	½	1	3–12	A1	14DUC12A*		14DUC12B*		14DUC12®*		14DUC12F*		14DUC12H*		14DUC120*	
1	2	1	5.5–22	A1	14DUD12A*		14DUD12B*		14DUD12®*		14DUD12F*		14DUD12H*		14DUD120*	
3	7½	2	25–100	B	14FUG12A*		14FUG12B*		14FUG12®*		14FUG12F*		14FUG12H*		14FUG120*	
7½	15	3	25–100	B	14HUG12A*		14HUG12B*		14HUG12®*		14HUG12F*		14HUG12H*		14HUG120*	

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

① Dual voltage coils not available in size 5–8 starters.

② For conduit hubs and conversion instructions, see page 17-108.

③ Coils D, F, or G will be wired for incoming voltage. J coil will be wired for separate source. Coils E, H, and L do not apply to single phase starters.

④ Enclosure is NEMA Type 4 (painted steel).

⑤ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

⑥ Only available F coil 100–250V AC 50/60Hz, or DC

Heavy Duty Motor Starters

Solid State Overload with Auto/Manual Reset, Class 14

Selection

 NEMA 1	Ordering Information	Coil Table																			
	▶ 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 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-153. ▶ Wiring Diagrams see page 17-169. ▶ Replacement Parts see page 17-129.	<table><tr><th>60Hz Voltage</th><th>Letter</th></tr><tr><td>24</td><td>J</td></tr><tr><td>120</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></table> For other voltages and frequencies, see Factory Modifications page 17-117.	60Hz Voltage	Letter	24	J	120	F	110–120/220–240	A	200–208	D	220–240	G	277	L	220–240/440–480	C	440–480	H	575–600
60Hz Voltage	Letter																				
24	J																				
120	F																				
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200–208	D																				
220–240	G																				
277	L																				
220–240/440–480	C																				
440–480	H																				
575–600	E																				

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Overload		Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size	NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight, Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		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 ^① 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 \$
14BUA82B*	—	14BUB82B*	—	14BUC82B*	—	14CUA82B*	—	14CUB82B*	—	14CUC82B*	—	14CUD82B*	—	14DUA82B*	—
14BUB82B*	—	14BUC82B*	—	14CUA82B*	—	14CUB82B*	—	14CUC82B*	—	14CUD82B*	—	14DUA82B*	—	14DUB82B*	—
14BUC82B*	—	14CUA82B*	—	14CUB82B*	—	14CUC82B*	—	14CUD82B*	—	14DUA82B*	—	14DUB82B*	—	14DUC82B*	—
14CUA82B*	—	14CUB82B*	—	14CUC82B*	—	14CUD82B*	—	14DUA82B*	—	14DUB82B*	—	14DUC82B*	—	14DUD82B*	—
14CUB82B*	—	14CUC82B*	—	14CUD82B*	—	14DUA82B*	—	14DUB82B*	—	14DUC82B*	—	14DUD82B*	—	14DUE82B*	—
14CUC82B*	—	14CUD82B*	—	14DUA82B*	—	14DUB82B*	—	14DUC82B*	—	14DUD82B*	—	14DUE82B*	—	14FUF82B*	—
14CUD82B*	—	14DUA82B*	—	14DUB82B*	—	14DUC82B*	—	14DUD82B*	—	14DUE82B*	—	14FUF82B*	—	14GUG82B*	—
14DUA82B*	—	14DUB82B*	—	14DUC82B*	—	14DUD82B*	—	14DUE82B*	—	14FUF82B*	—	14GUG82B*	—	14HUG82B*	—
14DUB82B*	—	14DUC82B*	—	14DUD82B*	—	14DUE82B*	—	14FUF82B*	—	14GUG82B*	—	14HUG82B*	—	14IUH82B*	—
14DUC82B*	—	14DUD82B*	—	14DUE82B*	—	14FUF82B*	—	14GUG82B*	—	14HUG82B*	—	14IUH82B*	—		
14DUD82B*	—	14DUE82B*	—	14FUF82B*	—	14GUG82B*	—	14HUG82B*	—	14IUH82B*	—				
14DUE82B*	—	14FUF82B*	—	14GUG82B*	—	14HUG82B*	—	14IUH82B*	—						
14FUF82B*	—	14GUG82B*	—	14HUG82B*	—	14IUH82B*	—								
14GUG82B*	—	14HUG82B*	—	14IUH82B*	—										
14HUG82B*	—	14IUH82B*	—												
14IUH82B*	—														

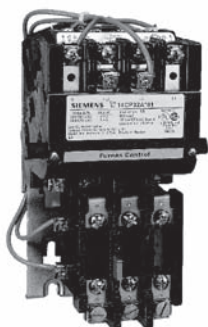
Note: All starter sizes carry one maximum Hp rating (per the National Electric Code).

^①For conduit hubs and conversion instructions, see page 17-108.

Heavy Duty Motor Starters

Ambient Compensated Bimetal Overload with Manual and Auto Reset, Class 14

Selection



Ordering Information

- ▶ 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 17-122. Single phase starters require 1 heater element. 3-phase starters require 3 heater elements.
- ▶ Field Modification Kits page 17-102.
- ▶ Factory Modifications page 17-117.
- ▶ Dimensions see page 17-137 open and 17-153 enclosed.
- ▶ Wiring Diagrams see page 17-169.
- ▶ Replacement Parts see page 17-129.
- ▶ For NO/NC SPDT contact on overload relay, replace "81" with "91". "81" indicates one NC contact.

Coil Table

60Hz Voltage	Letter
24	J
120	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 17-117.

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

Max Hp				Contact Amp Rating	NEMA Size	Half Size	Enclosure										
200 Volts	230 Volts	460 Volts	575 Volts				Open Type Standard Auxiliary Contacts ^①	NEMA 1 General Purpose		NEMA 4/4X Stainless ^② Watertight, Dust-tight Corrosion Resistant ③ = W for 304 Stainless ④ = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 7 & 9 NEMA 3 & 4 Class I Groups C & D Class II Groups E, F & G Class III Bolted Enclosures Indoor/Outdoor Use		NEMA 12 NEMA 3/3R ^③ Industrial Use Weatherproof	
Catalog No	Catalog No	Catalog No	Catalog No				Catalog No	\$	Catalog No	\$	Catalog No	\$	Catalog No	\$	Catalog No	\$	
1½	1½	2	2	9	00	—	14BP32A*81		14BP32B*81		Use Size 0	—	Use Size 0	—	Use Size 0	—	
3	3	5	5	18	0	—	14CP32A*81		14CP32B*81		14CP32@*81		14CP32F*81		14CP32H*81	14CP320*81	
7½	7½	10	10	27	1	—	14DP32A*81		14DP32B*81		14DP32@*81		14DP32F*81		14DP32H*81	14DP320*81	
10	10	15	15	40	—	1¾	14EP32A*81		14EP32B*81		14EP32@*81		14EP32F*81		14EP32H*81	14EP320*81	
10	15	25	25	45	2	—	14FP32A*81		14FP32B*81		14FP32@*81		14FP32F*81		14FP32H*81	14FP320*81	
15	20	30	30	60	—	2½	14GP32A*81		14GP32B*81		14GP32@*81		14GP32F*81		14GP32H*81	14GP320*81	
25	30	50	50	90	3	—	14HP32A*81		14HP32B*81		14HP32@*81		14HP32F*81		14HP32H*81	14HP320*81	
30	40	75	75	115	—	3½	14IP32A*81		14IP32B*81		14IP32@*81		14IP32F*81		14IP32H*81	14IP320*81	
40	50	100	100	135	4	—	14JG32A*81		14JG32B*81		14JG32@*81		14JG32F*81		14JG32H*81	14JG320*81	

Open Type & Standard Width Enclosure, Single Phase, 2-Pole^③

Max Hp		Contactor Amp Rating	NEMA Size	Half Size	Enclosure											
115 Volts	208/ 230 Volts				Open Type	NEMA 1 General Purpose		NEMA 4/4X Stainless [®] Watertight, Dust-tight Corrosion Resistant ® = W for 304 Stainless Steel ® = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant Class II Groups E, F & G Class III		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Bolted Enclosures		NEMA 12 NEMA 3/3R [®] Industrial Use Weatherproof		
						Catalog No	\$	Catalog No	\$	Catalog No	\$	Catalog No	\$	Catalog No	\$	Catalog No
⅓	1	9	00	—	14BP12A*81		14BP12B*81		Use Size 0	—	Use Size 0	—	Use Size 0	—	Use Size 0	—
1	2	18	0	—	14CP12A*81		14CP12B*81		14CP12®81		14CP12F*81		14CP12H*81		14CP120*81	
2	3	27	1	—	14DP12A*81		14DP12B*81		14DP12®81		14DP12F*81		14DP12H*81		14DP120*81	
3	5	35	1P	—	14EP12A*81		14EP12B*81		14EP12®81		14EP12F*81		14EP12H*81		14EP120*81	
3	7½	45	2	—	14FP12A*81		14FP12B*81		14FP12®81		14FP12F*81		14FP12H*81		14FP120*81	
5	10	60	—	2½	14GP12A*81		14GP12B*81		14GP12®81		14GP12F*81		14GP12H*81		14GP120*81	

Extra Wide Enclosure, 3-Phase, 3-Pole^③

Max Hp				Contactor Amp Rating	NEMA Size	Half Size	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts				NEMA 1 General Purpose		NEMA 4/4X Stainless ^② Watertight, Dust-tight Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 7 & 9. NEMA 3 & 4 Div 1 and Div 2 Class II Groups E, F & G Bolted Enclosures		NEMA 12. NEMA 3/3R ^③ Industrial Use Weatherproof Class III	
Catalog No	Catalog No	Catalog No	Catalog No				Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$
1½	1½	2	2	9	00	—	14BP82B*81		Use Size 0	—	Use Size 0	—	Use Size 0	—
3	3	5	5	18	0	—	14CP82B*81		14CP82@*81		14CP82H*81		14CP820*81	
7½	7½	10	10	27	1	—	14DP82B*81		14DP82@*81		14DP82H*81		14DP820*81	
10	10	15	15	40	—	1¾	14EP82B*81		14EP82@*81		14EP82H*81		14EP820*81	
10	15	25	25	45	2	—	14FP82B*81		14FP82@*81		14FP82H*81		14FP820*81	
15	20	30	30	60	—	2½	14GP82B*81		14GP82@*81		14GP82H*81		14GP820*81	
25	30	50	50	90	3	—	14HP82B*81		14HP82@*81		14HP82H*81		14HP820*81	
30	40	75	75	115	—	3½	14IP82B*81		14IP82@*81		14IP82H*81		14IP820*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. For higher Hp single phase motors, use 3-phase starters, wire and set per diagram on page 17-169.

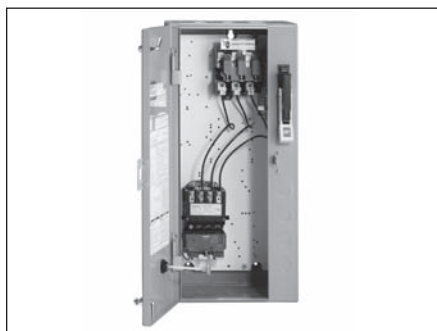
- ① To receive a single phase starter in an extra wide enclosure, order the enclosure kit from pg 16-91 and the open style starter from pg 16-14 or 16-16 as separate items.
 ② For conduit hubs and conversion instructions, see page 17-108.

- ③ Coils D, F, or G will be wired for incoming voltage. J coil will be wired for separate source. Coils E, H, and L do not apply to single phase starters.
 ④ Standard Auxiliary Contacts, Same as Contactors, refer to page 17-62.

Combination Heavy Duty Starters

Features and Benefits

General



Combination Starter Features

Combination starters include the following features:

- Manufactured with Cold Forming "TOX" Process
- Solid State Overloads Standard on Sizes 5-8
- Easy to Install
- Wide Range of Enclosure Types Available
- Heavy Duty Quarter Turns
- 100kA Short Circuit Current Rating when Protected with Class R Fuses to 600V or MCP to 480V
- Visible Blade Disconnect
- Industrial Type Disconnect Handle
- UL listed file #E185287 (class 17, 18, 25, 26 & 32)
- CSA certified file #LR 6535 (class 17, 18, 25, 26 & 32)

Application

A combination starter meets National Electrical Code requirements for:

1. A means of providing short circuit motor protection with fused or breaker disconnection of line voltage.
2. A means of safeguarding personnel from contact with live parts and from accidental starting of machinery by disconnecting the motor and the controller.
3. A motor controller with overload protection.

Prewired combination starters eliminate the cost of wiring between separate disconnect and starter. Factory testing assures field performance. Combination starters also provide a more compact and attractive installation than separate units.

Enclosure Types

Combination starters are available in NEMA 1, 12/3/3R/4 (painted), 4/4X

(stainless), 4X fiberglass and 7 & 9 enclosures. Enclosures protect personnel from contact with live parts and depending upon the construction, protect the control in varying degrees from physical damage and harmful atmospheres. All enclosures are supplied with corrosion resistant finishes.

Heavy Duty Disconnect Switches

The disconnect switch that goes the distance in durability, performance and reliability has the following advantages:

- Visible blades for the highest level of safety
- Double break switching action to reduce arcing, increase lifetime and eliminate the "electric hinge"
- More rugged positive action switch
- Oversized lugs are standard
- Line side shield to help guard personnel from contact with live parts
- Higher horsepower rating for design E high efficiency motors
- UL listed for IlSCO, Burndy and T&B crimp type lugs
- The 200A switch accepts up to 300 MCM versus 250 MCM wire size

Its rugged construction - with a high fault withstand rating of 100kA at 600 VAC when fused with class R rated fuses - meets the most stringent industry standards set forth by the automotive, petro-chemical, and pulp and paper industries. UL recognized and CSA certified, our disconnect switches are available either non-fusible or fusible with class R and class J fuse clips.



Enclosure Kits for NEMA Combination Starters Description

You can assemble a non-stocked combination starter per your unanticipated needs in minutes. Say, for example, your customer needs a fusible combination starter that you don't have in stock. You need in now, but don't sweat it.

Simply start with the enclosure kit which has the handle preinstalled. You install the required starter and fusible disconnect, connect the power wire and you are finished. Within minutes, you have the required combination starter in your hands. No more waiting on the factory. You need it, you got it!

What Is In It For You!

- **Reduce Lead-time** - What used to take days to get now takes minutes
- **Reduced Inventory** - Instead of stocking scores of various combination starters, simply stock a few enclosure kits, disconnect kits, circuit breaker kits and open starters. With these basic "building blocks" you virtually have hundreds of products on-hand
- **Quality** - The same high level of quality you have been accustomed to with our products will also be found in these new enclosure kits
- **UL Listed** - By correctly following the instructions included with the kits, the product you build is UL/CSA Listed

Refer to page 17-113 for more details.

Siemens Type ETI Circuit Breaker

The ETI circuit breaker is a device designed specifically for application in motor circuits. The ETI is a magnetic only protective device designed to provide protection against short circuit current.

The instantaneous-only type ETI circuit breaker employs adjustable magnetic trip settings to allow broader application ranges and a higher degree of motor short circuit protection.



Heavy Duty Starters

These combination starters use the same starters described in the heavy duty starter section of this catalog.

Combination Heavy Duty Starters

Non-Fusible with Solid State Overload, Class 17

Selection

	Ordering Information	Coil Table	
	▶ Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ▶ For Fusible Styles see page 17-22. ▶ Field Modification Kits see page 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-155. ▶ Wiring Diagrams see page 17-170. ▶ Replacement Parts see page 17-129.	60Hz Voltage	Letter
		24	J
		120	F
		110–120/220–240 ^①	A
	200–208	D	
	220–240	G	
	277	L	
	220–240/440–480 ^①	C	
	440–480	H	
	575–600	E	
	For other voltages and frequencies, see Factory Modifications page 17-117.		

Standard Width Enclosure, 3 Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Overload		Disc. Amp Range	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size		NEMA 1 General Purpose	NEMA 4/4X Stainless ^② Watertight, Dust-tight, Corrosion Resistant ④ = W for 304 Stainless Steel ④ = X for 316 Stainless Steel	NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant	NEMA 12, NEMA 3/3R ^② , NEMA 4 Painted (thru size 4) Industrial Use Weatherproof Watertight, Dust-tight				
									Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
1/4	1/4	1/4	1/4	0	—	0.25–1	A	30	17CUA92B*		17CUA92@*		17CUA92F*		17CUA92N*	
1/2	1/2	1 1/2	2	0	—	0.75–3.4	A	30	17CUB92B*		17CUB92@*		17CUB92F*		17CUB92N*	
2	2	5	5	0	—	3–12	A1	30	17CUC92B*		17CUC92@*		17CUC92F*		17CUC92N*	
3	3	—	—	0	—	5.5–22	A1	30	17CUD92B*		17CUD92@*		17CUD92F*		17CUD92N*	
1/4	1/4	1/4	1/4	1	—	0.25–1	A	30	17DUA92B*		17DUA92@*		17DUA92F*		17DUA92N*	
1/2	1/2	1 1/2	2	1	—	0.75–3.4	A	30	17DUB92B*		17DUB92@*		17DUB92F*		17DUB92N*	
2	2	5	5	1	—	3–12	A1	30	17DUC92B*		17DUC92@*		17DUC92F*		17DUC92N*	
3	3	10	10	1	—	5.5–22	A1	30	17DUD92B*		17DUD92@*		17DUD92F*		17DUD92N*	
7 1/2	7 1/2	—	—	1	—	10–40	A1	60	17DUE92B*		17DUE92@*		17DUE92F*		17DUE92N*	
10	10	15	15	—	1 1/2	10–40	A1	60	17EUE92B*		17EUE92@*		17EUE92F*		17EUE92N*	
10	15	25	25	2	—	13–52	B	60	17FUF92B*		17FUF92@*		17FUF92F*		17FUF92N*	
15	20	30	30	—	2 1/2	25–100	B	100 ^③	17GUG92B*		17GUG92@*		17GUG92F*		17GUG92N*	
20 ^④	25 ^⑤	50	50	3	—	25–100	B	100	17HUG92B*		17HUG92@*		17HUG92F*		17HUG92N*	
30	40	75	75	—	3 1/2	50–200	B	200	17IUH92B*		17IUH92@*		17IUH92F*		17IUH92N*	
40	50	100	100	4	—	50–200	B	200	17JUH92B*		17JUH92@*		17JUH92F*		17JUH92N*	
75	100	200	200	5	—	55–250	—	400 ^⑥	17LPU92B*		17LPU92E* ^⑦		—		17LPU92N*	
150	200	400	400	6	—	160–630	—	800	17MPX92B*		17MPX92E* ^⑦		—		17MPX92N*	
—	300	600	600	7 ^⑧	—	400–1220	A1+CT	1200	17NUN92B*		—		—		17NUN92N*	
—	450	900	900	8 ^⑧	—	400–1220	A1+CT	1600	17PUN92B*		—		—		17PUN92N*	

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

① Dual voltage coils not available in starter sizes 5–8.

② For conduit hubs and conversion instructions, see page 17-108.

③ For 60A disconnect, order fusible cat. no. page 17-22.

④ For 25 HP and 200A disconnect, order fusible cat. no. page 17-22.

⑤ For 30HP and 200A disconnect, order fusible cat. no. page 17-22.

⑥ For 600A disconnect, order fusible cat. no. page 17-22.

⑦ Enclosure is NEMA Type 4 (painted steel).

⑧ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

⑨ Only available

F coil 100–250V AC 50/60Hz, or DC

Combination Heavy Duty Starters

Non-Fusible with Solid State Overload, Class 17

Selection

	Ordering Information	Coil Table	
	▶ Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ▶ For Fusible Styles see page 17-23. ▶ Field Modification Kits see page 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-155. ▶ Wiring Diagrams see page 17-170. ▶ Replacement Parts see page 17-129.	60Hz Voltage	Letter
		24	J
		120	F
		110–120/220–240 ^②	A
	200–208	D	
	220–240	G	
	277	L	
	220–240/440–480 ^②	C	
	440–480	H	
	575–600	E	
	For other voltages and frequencies, see Factory Modifications page 17-117.		

Extra Wide Enclosure, 3-Phase, 3-Pole

Hp				NEMA Size	Half Size	Overload		Disc. Amp Range	Enclosure					
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size		NEMA 1 General Purpose		NEMA 4/4X Stainless ^③ Watertight, Dust-tight, Corrosion Resistant ③ = W for 304 Stainless Steel ③ = X for 316 Stainless Steel		NEMA 12, NEMA 3/3R ^③ , NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
									Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
1/4	1/4	1/4	1/4	0	—	0.25–1	A	30	17CUA82B*		17CUA82@*		17CUA82N*	
1/2	1/2	1 1/2	2	0	—	0.75–3.4	A	30	17CUB82B*		17CUB82@*		17CUB82N*	
2	2	5	5	0	—	3–12	A1	30	17CUC82B*		17CUC82@*		17CUC82N*	
3	3	—	—	0	—	5.5–22	A1	30	17CUD82B*		17CUD82@*		17CUD82N*	
1/4	1/4	1/4	1/4	1	—	0.25–1	A	30	17DUA82B*		17DUA82@*		17DUA82N*	
1/2	1/2	1 1/2	2	1	—	0.75–3.4	A	30	17DUB82B*		17DUB82@*		17DUB82N*	
2	2	5	5	1	—	3–12	A1	30	17DUC82B*		17DUC82@*		17DUC82N*	
3	3	10	10	1	—	5.5–22	A1	30	17DUD82B*		17DUD82@*		17DUD82N*	
7 1/2	7 1/2	—	—	1	—	10–40	A1	60	17DUE82B*		17DUE82@*		17DUE82N*	
10	10	15	15	—	1 1/4	10–40	A1	60	17EUE82B*		17EUE82@*		17EUE82N*	
10	15	25	25	2	—	13–52	B	60	17FUF82B*		17FUF82@*		17FUF82N*	
15	20	30	30	—	2 1/4	25–100	B	100 ^③	17GUG82B*		17GUG82@*		17GUG82N*	
20 ^④	25 ^④	50	50	3	—	25–100	B	100	17HUG82B*		17HUG82@*		17HUG82N*	

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

① For conduit hubs and conversion instructions, see page 17-108.

② For 60A disconnect, order fusible cat. no. page 17-23.

③ For 25 HP and 200A disconnect, order fusible cat. no. page 17-23.

④ For 30HP and 200A disconnect, order fusible cat. no. page 17-23.

Combination Heavy Duty Starters

Non-Fusible with Ambient Compensated Bimetal Overload, Class 17

• Revised •

03/01/14

Selection

	Ordering Information	Coil Table																				
	► 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 17-122. (3 required) ► Field Modification Kits see page 17-102. ► Factory Modifications see page 17-117. ► Dimensions see page 17-155. ► Wiring Diagrams see page 17-170. ► Replacement Parts see page 17-129. ► For NO/NC SPDT contact on overload relay, replace "81" with "91". "81" indicates one NC contact.	<table><tr><th>60Hz Voltage</th><th>Letter</th></tr><tr><td>24</td><td>J</td></tr><tr><td>120</td><td>F</td></tr><tr><td>110–120/220–240^①</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>220–240/440–480^①</td><td>C</td></tr><tr><td>440–480</td><td>H</td></tr><tr><td>575–600</td><td>E</td></tr></table>	60Hz Voltage	Letter	24	J	120	F	110–120/220–240 ^①	A	200–208	D	220–240	G	277	L	220–240/440–480 ^①	C	440–480	H	575–600	E
		60Hz Voltage	Letter																			
		24	J																			
120	F																					
110–120/220–240 ^①	A																					
200–208	D																					
220–240	G																					
277	L																					
220–240/440–480 ^①	C																					
440–480	H																					
575–600	E																					
For other voltages and frequencies, see Factory Modifications page 17-117.																						

Standard Width Enclosure, 3-Phase, 3-Pole

Max Hp				Contactor Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
								Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
3	3	5	5	18	0	—	30	17CP92B*81		17CP92@*81		17CP92F*81		17CP92N*81	
7½ ^②	7½ ^②	10	10	27	1	—	30	17DP92B*81		17DP92@*81		17DP92F*81		17DP92N*81	
10	10	15	15	40	—	1¾	60	17EP92B*81		17EP92@*81		17EP92F*81		17EP92N*81	
10	15	25	25	45	2	—	60	17FP92B*81		17FP92@*81		17FP92F*81		17FP92N*81	
15	20	30	30	60	—	2½	100	17GP92B*81		17GP92@*81		17GP92F*81		17GP92N*81	
25 ^③	30 ^③	50	50	90	3	—	100	17HP92B*81		17HP92@*81		17HP92F*81		17HP92N*81	
30	40	75	75	115	—	3½	200	17IP92B*81		17IP92@*81		17IP92F*81		17IP92N*81	
40	50	100	100	135	4	—	200	17JP92B*81		17JP92@*81		17JP92F*81		17JP92N*81	

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				Contactor Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Enclosure					
200 Volts	230 Volts	460 Volts	575 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
								Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
3	3	5	5	18	0	—	30	17CP82B*81		17CP82@*81		17CP82N*81	
7½ ^②	7½ ^②	10	10	27	1	—	30	17DP82B*81		17DP82@*81		17DP82N*81	
10	10	15	15	40	—	1¾	60	17EP82B*81		17EP82@*81		17EP82N*81	
10	15	25	25	45	2	—	60	17FP82B*81		17FP82@*81		17FP82N*81	
15	20	30	30	60	—	2½	100	17GP82B*81		17GP82@*81		17GP82N*81	
25 ^③	30 ^③	50	50	90	3	—	100	17HP82B*81		17HP82@*81		17HP82N*81	

Standard Width Enclosure, Single Phase, (Catalog Numbers are three phase, wire for single phase in the field)

Max Hp		Contactor Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Enclosure							
115 Volts	208/ 230 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless ^② Watertight, Dust-tight Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 12, NEMA 3/3R, ^③ NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
						Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
1	2	18	0	—	30	17CP92B*81		17CP92@*81		17CP92F*81		17CP92N*81	
2	3	27	1	—	30	17DP92B*81		17DP92@*81		17DP92F*81		17DP92N*81	
3	5	35	1P	—	60	17EP92B*81		17EP92@*81		17EP92F*81		17EP92N*81	
3	7½	45	2	—	60	17FP92B*81		17FP92@*81		17FP92F*81		17FP92N*81	
5	10	60	—	2½	100	17GP92B*81		17GP92@*81		17GP92F*81		17GP92N*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 17-108.

^② For 60A disc, order fusible cat. no. page 17-24.
^③ For 200A disc, order fusible cat. no. page 17-24.

Combination Heavy Duty Starters

Fusible with Solid State Overload, Class 17

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 17-102.
- Factory Modifications see page 17-117.
- Dimensions see page 17-155.
- Wiring Diagrams see page 17-170.
- Replacement Parts see page 17-129.

Coil Table

60Hz Voltage	Letter
24	J
120	F
110–120/220–240 ^⑦	A
200–208	D
220–240	G
277	L
220–240/440–480 ^⑦	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 17-117.

Standard Width Enclosure, 3-Phase, 3-Pole^③

Max Hp				NEMA Size	Half Size	Overload		Disc. Amp Range	Fuse Clip Amp/Volts	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size			NEMA 1 General Purpose	NEMA 4/4X Stainless ^② Watertight, Dust-tight, Corrosion Resistant ② = W for 304 Stainless Steel ② = X for 316 Stainless Steel	NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant	NEMA 12, NEMA 3/3R ^② NEMA 4 Painted (thru size 4) Industrial Use Weatherproof Watertight, Dust-tight				
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 \$		
1/2	1/2	—	—	0	—	0.25–1	A	30	30A/250V	17CUA92B*10	17CUA92@*10	17CUA92F*10	17CUA92N*10	17CUA92B*11	17CUA92@*11	17CUA92F*11	17CUA92N*11
—	—	1/2	1/2	0	—	0.25–1	A	30	30A/600V	17CUB92B*10	17CUB92@*10	17CUB92F*10	17CUB92N*10	17CUB92B*11	17CUB92@*11	17CUB92F*11	17CUB92N*11
1/2	3/4	—	—	0	—	0.75–3.4	A	30	30A/250V	17CUC92B*10	17CUC92@*10	17CUC92F*10	17CUC92N*10	17CUC92B*11	17CUC92@*11	17CUC92F*11	17CUC92N*11
—	—	1 1/2	2	0	—	0.75–3.4	A	30	30A/600V	17CUC92B*10	17CUC92@*10	17CUC92F*10	17CUC92N*10	17CUC92B*11	17CUC92@*11	17CUC92F*11	17CUC92N*11
2	2	—	—	0	—	3–12	A1	30	30A/250V	17CUC92B*10	17CUC92@*10	17CUC92F*10	17CUC92N*10	17CUC92B*11	17CUC92@*11	17CUC92F*11	17CUC92N*11
—	—	5	5	0	—	3–12	A1	30	30A/600V	17CUC92B*11	17CUC92@*11	17CUC92F*11	17CUC92N*11	17CUC92B*10	17CUC92@*10	17CUC92F*10	17CUC92N*10
3	3	—	—	0	—	5.5–22	A1	30	30A/250V	17CUD92B*10	17CUD92@*10	17CUD92F*10	17CUD92N*10	17CUD92B*11	17CUD92@*11	17CUD92F*11	17CUD92N*11
1/2	3/4	—	—	1	—	0.25–1	A	30	30A/250V	17DUA92B*10	17DUA92@*10	17DUA92F*10	17DUA92N*10	17DUA92B*11	17DUA92@*11	17DUA92F*11	17DUA92N*11
—	—	1/2	1/2	1	—	0.25–1	A	30	30A/600V	17DUA92B*11	17DUA92@*11	17DUA92F*11	17DUA92N*11	17DUB92B*10	17DUB92@*10	17DUB92F*10	17DUB92N*10
1/2	3/4	—	—	1	—	0.75–3.4	A	30	30A/250V	17DUB92B*10	17DUB92@*10	17DUB92F*10	17DUB92N*10	17DUB92B*11	17DUB92@*11	17DUB92F*11	17DUB92N*11
—	—	1 1/2	2	1	—	0.75–3.4	A	30	30A/600V	17DUB92B*11	17DUB92@*11	17DUB92F*11	17DUB92N*11	17DUC92B*10	17DUC92@*10	17DUC92F*10	17DUC92N*10
2	2	—	—	1	—	3–12	A1	30	30A/250V	17DUC92B*10	17DUC92@*10	17DUC92F*10	17DUC92N*10	17DUC92B*11	17DUC92@*11	17DUC92F*11	17DUC92N*11
—	—	5	5	1	—	3–12	A1	30	30A/600V	17DUC92B*11	17DUC92@*11	17DUC92F*11	17DUC92N*11	17DUD92B*10	17DUD92@*10	17DUD92F*10	17DUD92N*10
3	3	—	—	1	—	5.5–22	A1	30	30A/250V	17DUD92B*10	17DUD92@*10	17DUD92F*10	17DUD92N*10	17DUD92B*11	17DUD92@*11	17DUD92F*11	17DUD92N*11
—	—	10	10	1	—	5.5–22	A1	30	30A/600V	17DUD92B*11	17DUD92@*11	17DUD92F*11	17DUD92N*11	17DUE92B*10	17DUE92@*10	17DUE92F*10	17DUE92N*10
5	5	—	—	1	—	10–40	A1	30	30A/250V	17DUE92B*10	17DUE92@*10	17DUE92F*10	17DUE92N*10	17DUE92B*11	17DUE92@*11	17DUE92F*11	17DUE92N*11
7 1/2	7 1/2	—	—	1	—	10–40	A1	60	60A/250V	17DUE92B*12	17DUE92@*12	17DUE92F*12	17DUE92N*12	17EUE92B*13	17EUE92@*13	17EUE92F*13	17EUE92N*13
—	—	15	15	—	1 1/2	10–40	A1	60	60A/600V	17EUE92B*13	17EUE92@*13	17EUE92F*13	17EUE92N*13	17EUE92B*12	17EUE92@*12	17EUE92F*12	17EUE92N*12
10	10	—	—	—	1 1/2	10–40	A1	60	60A/250V	17EUE92B*12	17EUE92@*12	17EUE92F*12	17EUE92N*12	17FUF92B*12	17FUF92@*12	17FUF92F*12	17FUF92N*12
10	15	—	—	2	—	13–52	B	60	60A/250V	17FUF92B*12	17FUF92@*12	17FUF92F*12	17FUF92N*12	17FUF92B*13	17FUF92@*13	17FUF92F*13	17FUF92N*13
—	—	25	25	2	—	13–52	B	60	60A/600V	17FUF92B*13	17FUF92@*13	17FUF92F*13	17FUF92N*13	17GUG92B*13	17GUG92@*13	17GUG92F*13	17GUG92N*13
—	—	—	30	—	2 1/2	25–100	B	60	60A/600V	17GUG92B*13	17GUG92@*13	17GUG92F*13	17GUG92N*13	17GUG92B*15	17GUG92@*15	17GUG92F*15	17GUG92N*15
—	—	30	—	—	2 1/2	25–100	B	100	100A/600V	17GUG92B*15	17GUG92@*15	17GUG92F*15	17GUG92N*15	17GUG92B*14	17GUG92@*14	17GUG92F*14	17GUG92N*14
15	20	—	—	—	2 1/2	25–100	B	100	100A/250V	17GUG92B*14	17GUG92@*14	17GUG92F*14	17GUG92N*14	17HUG92B*14	17HUG92@*14	17HUG92F*14	17HUG92N*14
20	25	—	—	3	—	25–100	B	100	100A/250V	17HUG92B*14	17HUG92@*14	17HUG92F*14	17HUG92N*14	17HUG92B*15	17HUG92@*15	17HUG92F*15	17HUG92N*15
—	—	50	50	3	—	25–100	B	100	100A/600V	17HUG92B*15	17HUG92@*15	17HUG92F*15	17HUG92N*15	17HUG92B*16	17HUG92@*16	17HUG92F*16	17HUG92N*16
25	30	—	—	3	—	25–100	B	200	200A/250V	17HUG92B*16	17HUG92@*16	17HUG92F*16	17HUG92N*16	17IUH92B*16	17IUH92@*16	17IUH92F*16	17IUH92N*16
30	40	—	—	—	3 1/2	50–200	B	200	200A/250V	17IUH92B*16	17IUH92@*16	17IUH92F*16	17IUH92N*16	17IUH92B*17	17IUH92@*17	17IUH92F*17	17IUH92N*17
—	—	75	75	—	3 1/2	50–200	B	200	200A/600V	17IUH92B*17	17IUH92@*17	17IUH92F*17	17IUH92N*17	17JUH92B*16	17JUH92@*16	17JUH92F*16	17JUH92N*16
40	50	—	—	4	—	50–200	B	200	200A/250V	17JUH92B*16	17JUH92@*16	17JUH92F*16	17JUH92N*16	17JUH92B*17	17JUH92@*17	17JUH92F*17	17JUH92N*17
—	—	100	100	4	—	50–200	B	200	200A/600V	17JUH92B*17	17JUH92@*17	17JUH92F*17	17JUH92N*17	17LPU92B*18	17LPU92@*18 ^④	—	17LPU92N*18
75	100	—	—	5	—	55–250	—	400	400A/250V	17LPU92B*18	17LPU92@*18 ^④	—	17LPU92N*18	17LPU92B*20	17LPU92@*20 ^④	—	17LPU92N*20
—	—	—	—	5	—	55–250	—	600	600A/250V ^③	17LPU92B*20	17LPU92@*20 ^④	—	17LPU92N*20	17LPU92B*17	17LPU92@*17 ^④	—	17LPU92N*17
—	—	—	125	5	—	55–250	—	400	200A/600V	17LPU92B*17	17LPU92@*17 ^④	—	17LPU92N*17	17LPU92B*19	17LPU92@*19 ^④	—	17LPU92N*19
—	—	200	200	5	—	55–250	—	400	400A/600V	17LPU92B*19	17LPU92@*19 ^④	—	17LPU92N*19	17LPU92B*21	17LPU92@*21 ^④	—	17LPU92N*21
—	—	200	—	5	—	55–250	—	600	600A/600V ^③	17LPU92B*21	17LPU92@*21 ^④	—	17LPU92N*21	17MPX92B*20	17MPX92@*20 ^④	—	17MPX92N*20
150	200	—	—	6	—	160–630	—	600	600A/250V	17MPX92B*20	17MPX92@*20 ^④	—	17MPX92N*20	17MPX92B*21	17MPX92@*21 ^④	—	17MPX92N*21
—	—	400	400	6	—	160–630	—	600	600A/600V	17MPX92B*21	17MPX92@*21 ^④	—	17MPX92N*21	17MPX92B*23	17MPX92@*23 ^④	—	17MPX92N*23
—	—	400	400	6	—	160–630	—	800	800A/600V	17MPX92B*23	17MPX92@*23 ^④	—	17MPX92N*23	17NUN92B*24	—	—	17NUN92N*24
—	—	600	600	7 ^⑥	—	400–1220	A1+CT	1200	1200A/600V	17NUN92B*24	—	—	17NUN92N*24	17PUN92B*25	—	—	17PUN92N*25
—	—	900	900	8 ^⑥	—	400–1220	A1+CT	1600	1600A/600V	17PUN92B*25	—	—	17PUN92N*25	—	—	—	—

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

- ① Dual voltage coils not available in starter sizes 5–8.
- ② For conduit hubs and conversion instructions, see page 17-108.

- ③ Use Class J fuses only.
- ④ Enclosure is NEMA Type 4 (painted steel).
- ⑤ Single phase wiring page 17-169.
- ⑥ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

- ⑦ Only available F coil 100–250V AC 50/60Hz, or DC

Combination Heavy Duty Starters

Fusible with Solid State Overload, Class 17

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 17-102.
- Factory Modifications see page 17-117.
- Dimensions see page 17-155.
- Wiring Diagrams see page 17-170.
- Replacement Parts see page 17-129.

Coil Table

60Hz Voltage	Letter
24	J
120	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 17-117.

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Overload		Disc. Amp Range	Fuse Clip Amp/Volts	Enclosure		Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size			NEMA 1 General Purpose	NEMA 4/4X Stainless ^① Watertight, Dust-tight, ② = W for 304 Stainless Steel ③ = X for 316 Stainless Steel						
1/2	1/2	—	—	0	—	0.25–1	A	30	30A/250V	17CUA82B*10	17CUA82@*10	17CUA82N*10		17CUB82B*10	17CUB82@*10	17CUB82N*10	
—	—	1/2	1/2	0	—	0.25–1	A	30	30A/600V	17CUA82B*11	17CUA82@*11	17CUA82N*11		17CUB82B*11	17CUB82@*11	17CUB82N*11	
1/2	3/4	—	—	0	—	0.75–3.4	A	30	30A/250V	17CUB82B*10	17CUB82@*10	17CUB82N*10		17CUB82B*11	17CUB82@*11	17CUB82N*11	
—	—	1 1/2	2	0	—	0.75–3.4	A	30	30A/600V	17CUB82B*11	17CUB82@*11	17CUB82N*11		17CUB82B*11	17CUB82@*11	17CUB82N*11	
2	2	—	—	0	—	3–12	A1	30	30A/250V	17CUC82B*10	17CUC82@*10	17CUC82N*10		17CUC82B*11	17CUC82@*11	17CUC82N*11	
—	—	5	5	0	—	3–12	A1	30	30A/600V	17CUC82B*11	17CUC82@*11	17CUC82N*11		17CUC82B*11	17CUC82@*11	17CUC82N*11	
3	3	—	—	0	—	5.5–22	A1	30	30A/250V	17CUD82B*10	17CUD82@*10	17CUD82N*10		17CUD82B*11	17CUD82@*11	17CUD82N*11	
1/2	1/2	—	—	1	—	0.25–1	A	30	30A/250V	17DUA82B*10	17DUA82@*10	17DUA82N*10		17DUA82B*11	17DUA82@*11	17DUA82N*11	
—	—	1/2	1/2	1	—	0.25–1	A	30	30A/600V	17DUA82B*11	17DUA82@*11	17DUA82N*11		17DUA82B*11	17DUA82@*11	17DUA82N*11	
1/2	3/4	—	—	1	—	0.75–3.4	A	30	30A/250V	17DUB82B*10	17DUB82@*10	17DUB82N*10		17DUB82B*11	17DUB82@*11	17DUB82N*11	
—	—	1 1/2	2	1	—	0.75–3.4	A	30	30A/600V	17DUB82B*11	17DUB82@*11	17DUB82N*11		17DUB82B*11	17DUB82@*11	17DUB82N*11	
2	2	—	—	1	—	3–12	A1	30	30A/250V	17DUC82B*10	17DUC82@*10	17DUC82N*10		17DUC82B*11	17DUC82@*11	17DUC82N*11	
—	—	5	5	1	—	3–12	A1	30	30A/600V	17DUC82B*11	17DUC82@*11	17DUC82N*11		17DUC82B*11	17DUC82@*11	17DUC82N*11	
3	3	—	—	1	—	5.5–22	A1	30	30A/250V	17DUD82B*10	17DUD82@*10	17DUD82N*10		17DUD82B*11	17DUD82@*11	17DUD82N*11	
—	—	10	10	1	—	5.5–22	A1	30	30A/600V	17DUD82B*11	17DUD82@*11	17DUD82N*11		17DUD82B*11	17DUD82@*11	17DUD82N*11	
5	5	—	—	1	—	10–40	A1	30	30A/250V	17DUE82B*10	17DUE82@*10	17DUE82N*10		17DUE82B*11	17DUE82@*11	17DUE82N*11	
7 1/2	7 1/2	—	—	1	—	10–40	A1	60	60A/250V	17DUE82B*12	17DUE82@*12	17DUE82N*12		17DUE82B*11	17DUE82@*11	17DUE82N*11	
—	—	15	15	—	1 1/2	10–40	A1	60	60A/600V	17EUE82B*13	17EUE82@*13	17EUE82N*13		17EUE82B*11	17EUE82@*11	17EUE82N*11	
10	10	—	—	—	1 1/2	10–40	A1	60	60A/250V	17EUE82B*12	17EUE82@*12	17EUE82N*12		17EUE82B*11	17EUE82@*11	17EUE82N*11	
10	15	—	—	2	—	13–52	B	60	60A/250V	17FUF82B*12	17FUF82@*12	17FUF82N*12		17FUF82B*11	17FUF82@*11	17FUF82N*11	
—	—	25	25	2	—	13–52	B	60	60A/600V	17FUF82B*13	17FUF82@*13	17FUF82N*13		17FUF82B*11	17FUF82@*11	17FUF82N*11	
—	—	—	30	—	2 1/2	25–100	B	60	60A/600V	17GUG82B*13	17GUG82@*13	17GUG82N*13		17GUG82B*11	17GUG82@*11	17GUG82N*11	
—	—	30	—	—	2 1/2	25–100	B	100	100A/600V	17GUG82B*15	17GUG82@*15	17GUG82N*15		17GUG82B*11	17GUG82@*11	17GUG82N*11	
15	20	—	—	—	2 1/2	25–100	B	100	100A/250V	17GUG82B*14	17GUG82@*14	17GUG82N*14		17GUG82B*11	17GUG82@*11	17GUG82N*11	
20	25	—	—	3	—	25–100	B	100	100A/250V	17HUG82B*14	17HUG82@*14	17HUG82N*14		17HUG82B*11	17HUG82@*11	17HUG82N*11	
—	—	50	50	3	—	25–100	B	100	100A/600V	17HUG82B*15	17HUG82@*15	17HUG82N*15		17HUG82B*11	17HUG82@*11	17HUG82N*11	
25	30	—	—	3	—	25–100	B	200	200A/250V	17HUG82B*16	17HUG82@*16	17HUG82N*16		17HUG82B*11	17HUG82@*11	17HUG82N*11	

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

① For conduit hubs and conversion instructions, see page 17-108.

Combination Heavy Duty Starters

Fusible with Ambient Compensated Bimetal Overload, Class 17

Selection



Ordering Information

- 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 17-122. (3 required)
- Field Modification Kits see page 17-102.
- Factory Modifications see page 17-117.
- Dimensions see page 17-155.
- Wiring Diagrams see page 17-170.
- Replacement Parts see page 17-129.
- For NO/NC SPDT contact on overload relay, replace "81" with "91". "81" indicates one NC contact.

Coil Table

60Hz Voltage	Letter
24	J
120	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 17-117.

Standard Width Enclosure, 3-Phase, 3-Pole^②

Max Hp				Contact Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Fuse Clip Size Amps/Volts	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts						NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant ② = W for 304 Stainless Steel ② = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
									Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
3 —	3 —	— 5	— 5	18 18	0 0	— —	30 30	30A/250V 30A/600V	17CP92B*1081 17CP92B*1181		17CP92@*1081 17CP92@*1181		17CP92F*1081 17CP92F*1181		17CP92N*1081 17CP92N*1181	
5 —	5 —	— 10	— 10	27 27	1 1	— —	30 30	30A/250V 30A/600V	17DP92B*1081 17DP92B*1181		17DP92@*1081 17DP92@*1181		17DP92F*1081 17DP92F*1181		17DP92N*1081 17DP92N*1181	
7½	7½	—	—	27	1	—	60	60A/250V	17DP92B*1281		17DP92@*1281		17DP92F*1281		17DP92N*1281	
10 —	10 —	— 15	— 15	40 40	— —	1¼ 1¼	60 60	60A/250V 60A/600V	17EP92B*1281 17EP92B*1381		17EP92@*1281 17EP92@*1381		17EP92F*1281 17EP92F*1381		17EP92N*1281 17EP92N*1381	
10 —	15 —	— 25	— 25	45 45	2 2	— —	60 60	60A/250V 60A/600V	17FP92B*1281 17FP92B*1381		17FP92@*1281 17FP92@*1381		17FP92F*1281 17FP92F*1381		17FP92N*1281 17FP92N*1381	
— —	— —	— 30	30 60	60 60	— —	2½ 2½	60 100	60A/600V 100A/600V	17GP92B*1381 17GP92B*1581		17GP92@*1381 17GP92@*1581		17GP92F*1381 17GP92F*1581		17GP92N*1381 17GP92N*1581	
15	20	—	—	60	—	2½	100	100A/250V	17GP92B*1481		17GP92@*1481		17GP92F*1481		17GP92N*1481	
20	25	—	—	90	3	—	100	100A/250V	17HP92B*1481		17HP92@*1481		17HP92F*1481		17HP92N*1481	
—	—	50	50	90	3	—	100	100A/600V	17HP92B*1581		17HP92@*1581		17HP92F*1581		17HP92N*1581	
25	30	—	—	90	3	—	200	200A/250V	17HP92B*1681		17HP92@*1681		17HP92F*1681		17HP92N*1681	
30	40	—	—	115	—	3½	200	200A/250V	17IP92B*1681		17IP92@*1681		17IP92F*1681		17IP92N*1681	
—	—	75	75	115	—	3½	200	200A/600V	17IP92B*1781		17IP92@*1781		17IP92F*1781		17IP92N*1781	
40	50	—	—	135	4	—	200	200A/250V	17JP92B*1681		17JP92@*1681		17JP92F*1681		17JP92N*1681	
—	—	100	100	135	4	—	200	200A/600V	17JP92B*1781		17JP92@*1781		17JP92F*1781		17JP92N*1781	

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				Contact Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Fuse Clip Size Amps/Volts	Enclosure					
200 Volts	230 Volts	460 Volts	575 Volts						NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Industrial Use Weatherproof Ⓢ = W for 304 Stainless Steel Ⓢ = X for 316 Stainless Steel		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
									Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
3	3	—	—	18	0	—	30	30A/250V	17CP82B*1081		17CP82@*1081		17CP82N*1081	1405.00
—	—	5	5	18	0	—	30	30A/600V	17CP82B*1181		17CP82@*1181		17CP82N*1181	1423.00
5	5	—	—	27	1	—	30	30A/250V	17DP82B*1081		17DP82@*1081		17DP82N*1081	1447.00
—	—	10	10	27	1	—	30	30A/600V	17DP82B*1181		17DP82@*1181		17DP82N*1181	1465.00
7½	7½	—	—	27	1	—	60	60A/250V	17DP82B*1281		17DP82@*1281		17DP82N*1281	1465.00
10	10	—	—	40	—	1¾	60	60A/250V	17EP82B*1281		17EP82@*1281		17EP82N*1281	1595.00
—	—	15	15	40	—	1¾	60	60A/600V	17EP82B*1381		17EP82@*1381		17EP82N*1381	1612.00
10	15	—	—	45	2	—	60	60A/250V	17FP82B*1281		17FP82@*1281		17FP82N*1281	2034.00
—	—	25	25	45	2	—	60	60A/600V	17FP82B*1381		17FP82@*1381		17FP82N*1381	2051.00
—	—	30	30	60	—	2½	60	60A/600V	17GP82B*1381		17GP82@*1381		17GP82N*1381	2998.00
—	—	30	—	60	—	2½	100	100A/600V	17GP82B*1581		17GP82@*1581		17GP82N*1581	3075.00
15	20	—	—	60	—	2½	100	100A/250V	17GP82B*1481		17GP82@*1481		17GP82N*1481	3075.00
20	25	—	—	90	3	—	100	100A/250V	17HP82B*1481		17HP82@*1481		17HP82N*1481	3471.00
—	—	50	50	90	3	—	100	100A/600V	17HP82B*1581		17HP82@*1581		17HP82N*1581	3471.00
25	30	—	—	90	3	—	200	200A/250V	17HP82B*1681		17HP82@*1681		17HP82N*1681	3987.00

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 17-108.

^② Single phase wiring page 17-169.

Combination Heavy Duty Starters

MCP Type with Solid State Overload, Class 18

• Revised •

03/01/14

Selection

A photograph of a combination heavy duty starter unit. The unit is a grey metal enclosure with its door open to the left. Inside, there is a black terminal block at the top with several wires connected to it. Below the terminal block is a large, black, rectangular component, likely the starter motor or a control unit, with more wires connected to it. The interior of the enclosure is perforated for ventilation.

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 17-102.
- Factory Modifications see page 17-117.
- Dimensions see page 17-155.
- Wiring Diagrams see page 17-170.
- Replacement Parts see page 17-129.

Coil Table

60Hz Voltage	Letter
24	J
120	F
110–120/220–240 ^①	A
200–208	D
220–240	G
277	L
220–240/440–480 ^①	C
440–480	H
575–600	E

For other voltages and frequencies, see Factory Modifications page 17-117.

Standard Width Enclosure, 3-Phase, 3-Pole

Max Hp					NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Overload		Enclosure				Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$		
200 Volts	230 Volts	460 Volts	575 Volts	Amp Range				Frame Size	NEMA 1 General Purpose	NEMA 4/4X Stainless® Watertight, Dust-tight, Corrosion Resistant ® = W for 304 Stainless Steel ® = X for 316 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, NEMA 3/3R®, NEMA 4 Painted (thru size 4) Industrial Use Weatherproof Watertight, Dust-tight												
1/2	1/2	1	1	0	—	3	0.75–3.4	A	18CUB92B*	18CUB92®*	18CUB92F*	18CUB92H*	18CUB92N*		18CUC92B*	18CUC92®*	18CUC92F*	18CUC92H*	18CUC92N*		18CUD92B*	18CUD92®*	18CUD92F*	18CUD92H*	18CUD92N*
2	2	5	5	0	—	10	3–12	A1	18CUC92B*	18CUC92®*	18CUC92F*	18CUC92H*	18CUC92N*		18CUD92B*	18CUD92®*	18CUD92F*	18CUD92H*	18CUD92N*		18DUB92B*	18DUB92®*	18DUB92F*	18DUB92H*	18DUB92N*
3	3	—	—	0	—	25	5.5–22	A1	18CUD92B*	18CUD92®*	18CUD92F*	18CUD92H*	18CUD92N*		18DUC92B*	18DUC92®*	18DUC92F*	18DUC92H*	18DUC92N*		18DUD92B*	18DUD92®*	18DUD92F*	18DUD92H*	18DUD92N*
1/2	1/2	1	1	1	—	3	0.75–3.4	A	18DUB92B*	18DUB92®*	18DUB92F*	18DUB92H*	18DUB92N*		18DUC92B*	18DUC92®*	18DUC92F*	18DUC92H*	18DUC92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*
2	2	5	5	1	—	10	3–12	A1	18DUC92B*	18DUC92®*	18DUC92F*	18DUC92H*	18DUC92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*
3	3	7 1/2	10	1	—	25	5.5–22	A1	18DUD92B*	18DUD92®*	18DUD92F*	18DUD92H*	18DUD92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*
7 1/2	7 1/2	10	—	1	—	30	10–40	A1	18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*
—	—	15	15	—	1 1/4	40	10–40	A1	18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*		18DUE92B*	18DUE92®*	18DUE92F*	18DUE92H*	18DUE92N*
10	15	25	25	2	—	50	13–52	B	18FUF92B*	18FUF92®*	18FUF92F*	18FUF92H*	18FUF92N*		18FUF92B*	18FUF92®*	18FUF92F*	18FUF92H*	18FUF92N*		18FUF92B*	18FUF92®*	18FUF92F*	18FUF92H*	18FUF92N*
15	20	30	30	—	2 1/2	100	25–100	B	18GUG92B*	18GUG92®*	18GUG92F*	18GUG92H*	18GUG92N*		18GUG92B*	18GUG92®*	18GUG92F*	18GUG92H*	18GUG92N*		18GUG92B*	18GUG92®*	18GUG92F*	18GUG92H*	18GUG92N*
25	30	50	50	3	—	125	25–100	B	18HUG92B*	18HUG92®*	18HUG92F*	18HUG92H*	18HUG92N*		18HUG92B*	18HUG92®*	18HUG92F*	18HUG92H*	18HUG92N*		18HUG92B*	18HUG92®*	18HUG92F*	18HUG92H*	18HUG92N*
30	40	75	75	—	3 1/2	125	50–200	B	18IUH92B*	18IUH92®*	18IUH92F*	18IUH92H*	18IUH92N*		18IUH92B*	18IUH92®*	18IUH92F*	18IUH92H*	18IUH92N*		18IUH92B*	18IUH92®*	18IUH92F*	18IUH92H*	18IUH92N*
40	50	100	100	4	—	150	50–200	B	18JUH92B*	18JUH92®*	18JUH92F*	18JUH92H*	18JUH92N*		18JUH92B*	18JUH92®*	18JUH92F*	18JUH92H*	18JUH92N*		18JUH92B*	18JUH92®*	18JUH92F*	18JUH92H*	18JUH92N*
50	75	150	200	5	—	250	55–250	—	18LPT92B*	18LPT92E®③	—	—	18LPT92H*		18LPT92B*	18LPT92E®③	—	—	—		18LPT92B*	18LPT92E®③	—	—	18LPT92N*
75	100	200	—	5	—	400	55–250	—	18LPU92B*	18LPU92E®③	—	—	—	—	18LPU92B*	18LPU92E®③	—	—	—	—	18LPU92B*	18LPU92E®③	—	—	18LPU92N*
100	125	250	300	6	—	400	160–630	—	18MPW92B*	18MPW92E®③	—	—	—	—	18MPW92B*	18MPW92E®③	—	—	—	—	18MPW92B*	18MPW92E®③	—	—	18MPW92N*
150	200	400	400	6	—	600	160–630	—	18MPX92B*	18MPX92E®③	—	—	—	—	18MPX92B*	18MPX92E®③	—	—	—	—	18MPX92B*	18MPX92E®③	—	—	18MPX92N*
—	250	500	500	7④	—	800	400–1220	A1+CT	18NUV92B*	—	—	—	18NUV92N*		18NUV92B*	—	—	—	—	—	18NUV92B*	—	—	—	18NUV92N*
—	300	600	600	7④	—	1000	400–1220	A1+CT	18NUY92B*	—	—	—	18NUY92N*		18NUY92B*	—	—	—	—	—	18NUY92B*	—	—	—	18NUY92N*
—	400	800	800	8⑤	—	1200	400–1220	A1+CT	18PUW92B*	—	—	—	18PUW92N*		18PUW92B*	—	—	—	—	—	18PUW92B*	—	—	—	18PUW92N*
—	450	900	900	8⑤	—	1600	400–1220	A1+CT	18PUZ92B*	—	—	—	18PUZ92N*		18PUZ92B*	—	—	—	—	—	18PUZ92B*	—	—	—	18PUZ92N*

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

① Dual voltage coils not available in starter sizes 5–8.

② For conduit hubs and conversion instructions, see page 17-108.

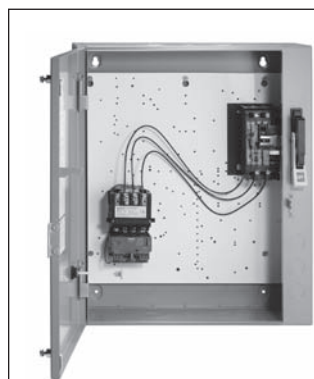
③ Enclosure is NEMA Type 4 (painted steel).

④ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

⑤ Only available F coil 100–250V AC 50/60Hz, or DC

Combination Heavy Duty Starters

MCP Type with Solid State Overload, Class 18

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 17-102.
- ▶ Factory Modifications see page 17-117.
- ▶ Dimensions see page 17-155.
- ▶ Wiring Diagrams see page 17-170.
- ▶ Replacement Parts see page 17-129.

Coil Table

60Hz Voltage	Letter
24	J
120	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 17-117.

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Overload		Enclosure		NEMA 4/4X Stainless ^①		NEMA 12, NEMA 3/3R ^① , NEMA 4 Painted	
200 Volts	230 Volts	460 Volts	575 Volts				Amp Range	Frame Size	NEMA 1 General Purpose		Watertight, Dust-tight, Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		Industrial Use Weatherproof Watertight, Dust-tight	
									Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
1/2	1/2	1	1	0	—	3	0.75–3.4	A	18CUB82B*		18CUB82@*		18CUB82N*	
2	2	5	5	0	—	10	3–12	A1	18CUC82B*		18CUC82@*		18CUC82N*	
3	3	—	—	0	—	25	5.5–22	A1	18CUD82B*		18CUD82@*		18CUD82N*	
1/2	1/2	1	1	1	—	3	0.75–3.4	A	18DUB82B*		18DUB82@*		18DUB82N*	
2	2	5	5	1	—	10	3–12	A1	18DUC82B*		18DUC82@*		18DUC82N*	
3	3	7 1/2	10	1	—	25	5.5–22	A1	18DUD82B*		18DUD82@*		18DUD82N*	
7 1/2	7 1/2	10	—	1	—	30	10–40	A1	18DUE82B*		18DUE82@*		18DUE82N*	
—	—	15	15	—	1 1/2	40	10–40	A1	18EUE82B*		18EUE82@*		18EUE82N*	
10	15	25	25	2	—	50	13–52	B	18FUF82B*		18FUF82@*		18FUF82N*	
15	20	30	30	—	2 1/2	100	25–100	B	18GUG82B*		18GUG82@*		18GUG82N*	
25	30	50	50	3	—	125	25–100	B	18HUG82B*		18HUG82@*		18HUG82N*	

NEMA & General Purpose Control

CONTROL PRODUCTS 17

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

^① For conduit hubs and conversion instructions, see page 17-108.

Combination Heavy Duty Starters

MCP Type with Ambient Compensated Bimetal Overload, Class 18

• Revised •

03/01/14

Selection

	Ordering Information	Coil Table	
	▶ 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 17-122. (3 required) ▶ Field Modification Kits see page 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-155. ▶ Wiring Diagrams see page 17-170. ▶ Replacement Parts see page 17-129. ▶ For NO/NC SPDT contact on overload relay, replace "81" with "91". "81" indicates one NC contact.	60Hz Voltage	Letter
		24	J
		120	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 17-117.	

Standard Width Enclosure, 3-Phase, 3-Pole

Max Hp				Contactor Amp Rating	NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Enclosure									
200 Volts	230 Volts	460 Volts	575 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant ® = VV for 304 Stainless Steel ® = X for 316 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant Class I Groups C & D Class II Groups E, F & G		NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Weatherproof Watertight, Dust-tight Class III Bolted Enclosures Indoor/Outdoor Use		NEMA 12,NEMA 3/3R, ^① NEMA 4 Painted Industrial Use	
								Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
½	½	1	1	18	0	—	3	18CP92BA*81	18CP92@A*81	18CP92@A*81	18CP92FA*81	18CP92HA*81	18CP92NA*81	18CP92NA*81	18CP92NA*81		
1	1	3	3	18	0	—	10	18CP92BB*81	18CP92@B*81	18CP92@B*81	18CP92FB*81	18CP92HB*81	18CP92NB*81	18CP92NB*81	18CP92NB*81		
3	3	5	5	18	0	—	25	18CP92BC*81	18CP92@C*81	18CP92@C*81	18CP92FC*81	18CP92HC*81	18CP92NC*81	18CP92NC*81	18CP92NC*81		
½	½	1	1	27	1	—	3	18DP92BA*81	18DP92@A*81	18DP92@A*81	18DP92FA*81	18DP92HA*81	18DP92NA*81	18DP92NA*81	18DP92NA*81		
1	1	3	3	27	1	—	10	18DP92BB*81	18DP92@B*81	18DP92@B*81	18DP92FB*81	18DP92HB*81	18DP92NB*81	18DP92NB*81	18DP92NB*81		
3	3	7½	7½	27	1	—	25	18DP92BD*81	18DP92@D*81	18DP92@D*81	18DP92FD*81	18DP92HD*81	18DP92ND*81	18DP92ND*81	18DP92ND*81		
7½	7½	10	10	27	1	—	30	18DP92BE*81	18DP92@E*81	18DP92@E*81	18DP92FE*81	18DP92HE*81	18DP92NE*81	18DP92NE*81	18DP92NE*81		
—	—	15	15	40	—	1¾	40	18EP92BF*81	18EP92@F*81	18EP92@F*81	18EP92FF*81	18EP92HF*81	18EP92NF*81	18EP92NF*81	18EP92NF*81		
10	10	—	—	40	—	1¾	50	18EP92BG*81	18EP92@G*81	18EP92@G*81	18EP92FG*81	18EP92HG*81	18EP92NG*81	18EP92NG*81	18EP92NG*81		
—	—	20	20	45	2	—	40	18FP92BH*81	18FP92@H*81	18FP92@H*81	18FP92FH*81	18FP92HH*81	18FP92NH*81	18FP92NH*81	18FP92NH*81		
10	15	25	25	45	2	—	50	18FP92BJ*81	18FP92@J*81	18FP92@J*81	18FP92FJ*81	18FP92HJ*81	18FP92NJ*81	18FP92NJ*81	18FP92NJ*81		
10	15	30	30	60	—	2½	50	18GP92BK*81	18GP92@K*81	18GP92@K*81	18GP92FK*81	18GP92HK*81	18GP92NK*81	18GP92NK*81	18GP92NK*81		
15	20	—	—	60	—	2½	100	18GP92BL*81	18GP92@L*81	18GP92@L*81	18GP92FL*81	18GP92HL*81	18GP92NL*81	18GP92NL*81	18GP92NL*81		
—	—	30	30	90	3	—	50	18HP92BM*81	18HP92@M*81	18HP92@M*81	18HP92FM*81	18HP92HM*81	18HP92NM*81	18HP92NM*81	18HP92NM*81		
25	30	50	50	90	3	—	125	18HP92BN*81	18HP92@N*81	18HP92@N*81	18HP92FN*81	18HP92HN*81	18HP92NN*81	18HP92NN*81	18HP92NN*81		
30	40	75	75	115	—	3½	125	18IP92BP*81	18IP92@P*81	18IP92@P*81	18IP92FP*81	18IP92HP*81	18IP92NP*81	18IP92NP*81	18IP92NP*81		
40	50	100	100	135	4	—	150	18JP92BR*81	18JP92@R*81	18JP92@R*81	18JP92FR*81	18JP92HR*81	18JP92NR*81	18JP92NR*81	18JP92NR*81		

Extra Wide Enclosure, 3-Phase, 3-Pole

Max Hp				Contactor Amp Rating	NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless ^① Watertight, Dust-tight Corrosion Resistant @ = W for 304 Stainless Steel @ = X for 316 Stainless Steel		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight		NEMA 12, NEMA 3/3R, ^① NEMA 4 Painted Industrial Use	
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 \$
1/2	1/2	1	1	18	0	—	3	18CP82BA*81	18CP82@A*81	18CP82@A*81	18CP82FA*81	18CP82HA*81	18CP82NA*81	18CP82NA*81	18CP82NA*81
1	1	3	3	18	0	—	10	18CP82BB*81	18CP82@B*81	18CP82@B*81	18CP82FB*81	18CP82HB*81	18CP82NB*81	18CP82NB*81	18CP82NB*81
3	3	5	5	18	0	—	25	18CP82BC*81	18CP82@C*81	18CP82@C*81	18CP82FC*81	18CP82HC*81	18CP82NC*81	18CP82NC*81	18CP82NC*81
1/2	1/2	1	1	27	1	—	3	18DP82BA*81	18DP82@A*81	18DP82@A*81	18DP82FA*81	18DP82HA*81	18DP82NA*81	18DP82NA*81	18DP82NA*81
1	1	3	3	27	1	—	10	18DP82BB*81	18DP82@B*81	18DP82@B*81	18DP82FB*81	18DP82HB*81	18DP82NB*81	18DP82NB*81	18DP82NB*81
3	3	7 1/2	7 1/2	27	1	—	25	18DP82BD*81	18DP82@D*81	18DP82@D*81	18DP82FD*81	18DP82HD*81	18DP82ND*81	18DP82ND*81	18DP82ND*81
7 1/2	7 1/2	10	10	27	1	—	30	18DP82BE*81	18DP82@E*81	18DP82@E*81	18DP82FE*81	18DP82HE*81	18DP82NE*81	18DP82NE*81	18DP82NE*81
—	—	15	15	40	—	1 1/4	40	18EP82BF*81	18EP82@F*81	18EP82@F*81	18EP82FF*81	18EP82HF*81	18EP82NF*81	18EP82NF*81	18EP82NF*81
10	10	—	—	40	—	1 1/4	50	18EP82BG*81	18EP82@G*81	18EP82@G*81	18EP82FG*81	18EP82HG*81	18EP82NG*81	18EP82NG*81	18EP82NG*81
—	—	20	20	45	2	—	40	18FP82BH*81	18FP82@H*81	18FP82@H*81	18FP82FH*81	18FP82HH*81	18FP82NH*81	18FP82NH*81	18FP82NH*81
10	15	25	25	45	2	—	50	18FP82BJ*81	18FP82@J*81	18FP82@J*81	18FP82FJ*81	18FP82HJ*81	18FP82NJ*81	18FP82NJ*81	18FP82NJ*81
10	15	30	30	60	—	2 1/2	50	18GP82BK*81	18GP82@K*81	18GP82@K*81	18GP82FK*81	18GP82HK*81	18GP82NK*81	18GP82NK*81	18GP82NK*81
15	20	—	—	60	—	2 1/2	100	18GP82BL*81	18GP82@L*81	18GP82@L*81	18GP82FL*81	18GP82HL*81	18GP82NL*81	18GP82NL*81	18GP82NL*81
—	—	30	30	90	3	—	50	18HP82BM*81	18HP82@M*81	18HP82@M*81	18HP82FM*81	18HP82HM*81	18HP82NM*81	18HP82NM*81	18HP82NM*81
25	30	50	50	90	3	—	125	18HP82BN*81	18HP82@N*81	18HP82@N*81	18HP82FN*81	18HP82HN*81	18HP82NN*81	18HP82NN*81	18HP82NN*81

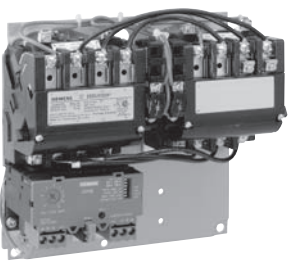
Note: Hp's shown above are based on the overload amp range for the FLA's (per the National Electric Code) of typical industrial motors. All starter sizes carry one maximum Hp rating.

① For conduit hubs and conversion instructions, see page 17-108.

Reversing Heavy Duty Starters

Solid State Overload, Class 22

Selection

	Ordering Information	Coil Table	
		60Hz Voltage	Letter
	► 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 17-102. ► Factory Modifications see page 17-117. ► Dimensions see page 17-139 open and 17-158 enclosed. ► Wiring Diagrams see page 17-172.	24	J
		120	F
		110–120/220–240 ^①	A
		200–208	D
		220–240	G
		277	L
		220–240/440–480 ^①	C
		440–480	H
		575–600	E
		For other voltages and frequencies, see Factory Modifications page 17-117.	

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

Max Hp				NEMA Size	Half Size	Overload		Enclosure											
								Open Type Standard Auxiliary Contacts ^④	NEMA 1 General Purpose	NEMA 4/4X Stainless ^③ 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 NEMA 3/3R ^② Industrial Use Weatherproof (Field Convertible to 3/3R)						
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size	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	1/4	1/2	0	—	0.25–1	A	22CUA32A*		22CUA32B*		22CUA32W*		22CUA32F*		22CUA32H*		22CUA320*	
1/2	1/2	1 1/2	2	0	—	0.75–3.4	A	22CUB32A*		22CUB32B*		22CUB32W*		22CUB32F*		22CUB32H*		22CUB320*	
2	2	5	5	0	—	3–12	A1	22CUC32A*		22CUC32B*		22CUC32W*		22CUC32F*		22CUC32H*		22CUC320*	
3	3	—	—	0	—	5.5–22	A1	22CUD32A*		22CUD32B*		22CUD32W*		22CUD32F*		22CUD32H*		22CUD320*	
1/4	1/4	1/4	1/4	1	—	0.25–1	A	22DUA32A*		22DUA32B*		22DUA32W*		22DUA32F*		22DUA32H*		22DUA320*	
1/2	1/2	1 1/2	2	1	—	0.75–3.4	A	22DUB32A*		22DUB32B*		22DUB32W*		22DUB32F*		22DUB32H*		22DUB320*	
2	2	5	5	1	—	3–12	A1	22DUC32A*		22DUC32B*		22DUC32W*		22DUC32F*		22DUC32H*		22DUC320*	
3	3	10	10	1	—	5.5–22	A1	22DUD32A*		22DUD32B*		22DUD32W*		22DUD32F*		22DUD32H*		22DUD320*	
7 1/2	7 1/2	—	—	1	—	10–40	A1	22DUE32A*		22DUE32B*		22DUE32W*		22DUE32F*		22DUE32H*		22DUE320*	
10	10	15	15	—	1 1/4	10–40	A1	22EUE32A*		22EUE32B*		22EUE32W*		22EUE32F*		22EUE32H*		22EUE320*	
10	15	25	25	2	—	13–52	B	22FUF32A*		22FUF32B*		22FUF32W*		22FUF32F*		22FUF32H*		22FUF320*	
15	20	30	30	—	2 1/4	25–100	B	22GUG32A*		22GUG32B*		22GUG32W*		22GUG32F*		22GUG32H*		22GUG320*	
25	30	50	50	3	—	25–100	B	22HUG32A*		22HUG32B*		22HUG32W*		22HUG32F*		22HUG32H*		22HUG320*	
30	40	75	75	—	3 1/4	50–200	B	22IUH32A*		22IUH32B*		22IUH32W*		22IUH32F*		22IUH32H*		22IUH320*	
40	50	100	100	4	—	50–200	B	22JUH32A*		22JUH32B*		22JUH32W*		22JUH32F*		22JUH32H*		22JUH320*	
75	100	200	200	5	—	55–250	—	22LPU32A*		22LPU32B*		22LPU32E* ^③		—	—	—	—	22LPU320*	
150	200	400	400	6	—	160–630	—	22MPX32A*		22MPX32B*		22MPX32E* ^③		—	—	—	—	22MPX320*	
—	300	600	600	7 ^④	—	400–1220	A1+CT	22NUN32A*		22NUN32B*		—	—	—	—	—	—	22NUN320*	
—	450	900	900	8 ^⑤	—	400–1220	A1+CT	22PUN32A*		22PUN32B*		—	—	—	—	—	—	22PUN320*	

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

① Dual voltage coils not available in size 5–8 starters.

② For conduit hubs and conversion instructions, see page 17-108.

③ Enclosure is rated only NEMA 4 (painted steel).

④ Only available

F coil 100–250V AC 50/60Hz, or DC

H coil 150–500V AC 50/60Hz, or DC

⑤ Only available

F coil 100–250V AC 50/60Hz, or DC

⑥ Auxiliary contacts

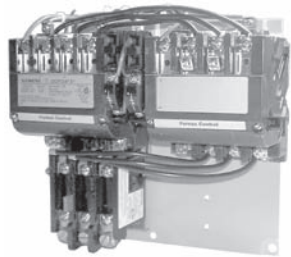
22B–22E 4th pole built-in

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	
		60Hz Voltage	Letter
	► Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.	24	J
	► Heater elements see page 17-122. Single phase starters require 1 heater element. 3-phase starters require 3 heater elements.	120	F
	► Field Modification Kits see page 17-102.	110–120/220–240	A
	► Factory Modifications see page 17-117.	200–208	D
	► Dimensions see pages 17-139 open and 17-158 enclosed.	220–240	G
	► Wiring Diagrams see page 17-171.	277	L
	► Replacement Parts see page 17-129.	220–240/440–480	C
	► For NO/NC SPDT contact on overload relay, replace "81" with "91".	440–480	H
	"81" indicates one NC contact.	575–600	E
		For other voltages and frequencies, see Factory Modifications page 17-117.	

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

Open Type & Standard Weather-Enclosure, 3-Phase, 3-Ø																			
Max Hp				Cont-actor Amp Rating	NEMA Size	Half Size	Enclosure												
200 Volts	230 Volts	460 Volts	575 Volts				Open Type ^③		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		
							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		22CP320*81		
7½	7½	10	10	27	1	—	22DP32A*81		22DP32B*81		22DP32W*81		22DP32F*81		22DP32H*81		22DP320*81		
10	10	15	15	40	—	1½	22EP32A*81		22EP32B*81		22EP32W*81		22EP32F*81		22EP32H*81		22EP320*81		
10	15	25	25	45	2	—	22FP32A*81		22FP32B*81		22FP32W*81		22FP32F*81		22FP32H*81		22FP320*81		
15	20	30	30	60	—	2½	22GP32A*81		22GP32B*81		22GP32W*81		22GP32F*81		22GP32H*81		22GP320*81		
25	30	50	50	90	3	—	22HP32A*81		22HP32B*81		22HP32W*81		22HP32F*81		22HP32H*81		22HP320*81		
30	40	75	75	115	—	3½	22IP32A*81		22IP32B*81		22IP32W*81		22IP32F*81		22IP32H*81		22IP320*81		
40	50	100	100	135	4	—	22JG32A*81		22JG32B*81		22JG32W*81		22JG32F*81		22JG32H*81		22JG320*81		

Open Type & Standard Width Enclosure, Single Phase, 3-Wire, 2-Pole^②

Max Hp				Enclosure											
115 Volts	208/230 Volts	Contactor Amp Rating	NEMA Size	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	
				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	—
1	2	18	0	22CP12A*81		22CP12B*81		22CP12W*81		22CP12F*81		22CP12H*81		22CP120*81	
2	3	27	1	22DP12A*81		22DP12B*81		22DP12W*81		22DP12F*81		22DP12H*81		22DP120*81	
3	5	35	1P	22EP12A*81		22EP12B*81		22EP12W*81		22EP12F*81		22EP12H*81		22EP120*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 17-108.

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

Combination Reversing Heavy Duty Starters

Non-Fusible, Class 25

• Revised •

03/01/14

Selection

	Ordering Information	Coil Table																				
	▶ 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 17-122. ▶ Fuse clips see page 17-118. ▶ Field Modification Kits see page 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-160. ▶ Wiring Diagrams see page 17-173. ▶ Replacement Parts see page 17-129. ▶ For NO/NC SPDT contact on overload, replace "81" with "91". "81" indicates one NC contact.	<table><tr><th>60Hz Voltage</th><th>Letter</th></tr><tr><td>24</td><td>J</td></tr><tr><td>120</td><td>F</td></tr><tr><td>110–120/220–240^①</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>220–240/440–480^①</td><td>C</td></tr><tr><td>440–480</td><td>H</td></tr><tr><td>575–600</td><td>E</td></tr></table>	60Hz Voltage	Letter	24	J	120	F	110–120/220–240 ^①	A	200–208	D	220–240	G	277	L	220–240/440–480 ^①	C	440–480	H	575–600	E
	60Hz Voltage	Letter																				
24	J																					
120	F																					
110–120/220–240 ^①	A																					
200–208	D																					
220–240	G																					
277	L																					
220–240/440–480 ^①	C																					
440–480	H																					
575–600	E																					
For other voltages and frequencies, see Factory Modifications page 17-117.																						

Standard Width Enclosure with Solid State Overload, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Overload		Disc. Amp Rating	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size		NEMA 1 General Purpose	NEMA 4/4X Stainless ^② Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 12, NEMA 3/3R ^③ , NEMA 4 Painted (thru size 4) Industrial Use Weatherproof Watertight, Dust-tight			
											Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
½	¾	½	½	0	—	0.25–1	A	30	25CUA92B*		25CUA92W*		25CUA92F*		25CUA92N*	
½	¾	1½	2	0	—	0.75–3.4	A	30	25CUB92B*		25CUB92W*		25CUB92F*		25CUB92N*	
2	2	5	5	0	—	3–12	A1	30	25CUC92B*		25CUC92W*		25CUC92F*		25CUC92N*	
3	3	—	—	0	—	5.5–22	A1	30	25CUD92B*		25CUD92W*		25CUD92F*		25CUD92N*	
½	¾	½	½	1	—	0.25–1	A	30	25DUA92B*		25DUA92W*		25DUA92F*		25DUA92N*	
½	¾	1½	2	1	—	0.75–3.4	A	30	25DUB92B*		25DUB92W*		25DUB92F*		25DUB92N*	
2	2	5	5	1	—	3–12	A1	30	25DUC92B*		25DUC92W*		25DUC92F*		25DUC92N*	
3	3	10	10	1	—	5.5–22	A1	30	25DUD92B*		25DUD92W*		25DUD92F*		25DUD92N*	
7½	7½	—	—	1	—	10–40	A1	60	25DUE92B*		25DUE92W*		25DUE92F*		25DUE92N*	
10	10	15	15	—	1½	10–40	A1	60	25EUE92B*		25EUE92W*		25EUE92F*		25EUE92N*	
10	15	25	25	2	—	13–52	B	60	25FUF92B*		25FUF92W*		25FUF92F*		25FUF92N*	
15	20	30	30	—	2½	25–100	B	100	25GUG92B*		25GUG92W*		25GUG92F*		25GUG92N*	
20	25	50	50	3	—	25–100	B	100	25HUG92B*		25HUG92W*		25HUG92F*		25HUG92N*	
30	40	75	75	—	3½	50–200	B	200	25IUH92B*		25IUH92W*		25IUH92F*		25IUH92N*	
40	50	100	100	4	—	50–200	B	200	25JUH92B*		25JUH92W*		25JUH92F*		25JUH92N*	
75	100	200	200	5	—	55–250	—	400	25LPU92B*		25LPU92E* ^③		—	—	25LPU92N*	
150	200	400	400	6	—	160–630	—	800	25MPX92B*		25MPX92E* ^③		—	—	25MPX92N*	
—	300	600	600	7 ^④	—	400–1220	A1+CT	1200	25NUN92B*		—	—	—	—	25NUN92N*	
—	450	900	900	8 ^⑤	—	400–1220	A1+CT	1600	25PUN92B*		—	—	—	—	25PUN92N*	

Standard Width Enclosure with Ambient Compensated Bimetal Overload, 3-Phase, 3-Pole

Max Hp				Cont-actor Amp Rating	NEMA Size	Half Size	Disc Amp Rating	Enclosure							
200 Volts	230 Volts	460 Volts	575 Volts					NEMA 1 General Purpose		NEMA 4/4X Stainless® Watertight, Dust-tight Corrosion Resistant 304 Stainless Steel		NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant		NEMA 12® NEMA 3/3R NEMA 4 Painted Industrial Use Weatherproof Watertight, Dust-tight	
								Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
3	3	5	5	18	0	—	30	25CP92B*81		25CP92W*81		25CP92F*81		25CP92N*81	
7½	7½	10	10	27	1	—	30	25DP92B*81		25DP92W*81		25DP92F*81		25DP92N*81	
10	10	15	15	40	—	1¾	60	25EP92B*81		25EP92W*81		25EP92F*81		25EP92N*81	
10	15	25	25	45	2	—	60	25FP92B*81		25FP92W*81		25FP92F*81		25FP92N*81	
15	20	30	30	60	—	2½	100	25GP92B*81		25GP92W*81		25GP92F*81		25GP92N*81	
25	30	50	50	90	3	—	100	25HP92B*81		25HP92W*81		25HP92F*81		25HP92N*81	
30	40	75	75	115	—	3½	200	25IP92B*81		25IP92W*81		25IP92F*81		25IP92N*81	
40	50	100	100	135	4	—	200	25JP92B*81		25JP92W*81		25JP92F*81		25JP92N*81	

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

① Dual voltage coils not available in starter sizes 5–8.

② For conduit hubs and conversion instructions, see page 17-108.

③ Enclosure is NEMA Type 4 (painted steel).

④ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

⑤ Only available F coil 100–250V AC 50/60Hz, or DC

Combination Reversing Heavy Duty Starters

MCP Type, Class 26

Selection

	Ordering Information	Coil Table	
	▶ 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 17-102. ▶ Factory Modifications see page 17-117. ▶ Dimensions see page 17-160. ▶ Wiring Diagrams see page 17-173. ▶ Replacement Parts see page 17-129. ▶ For NO/NC SPDT contact on overload relay, replace "81" with "91". "81" indicates one NC contact.	60Hz Voltage	Letter
		24	J
		120	F
		110–120/220–240 ^①	A
	200–208	D	
	220–240	G	
	277	L	
	220–240/440–480 ^①	C	
	440–480	H	
	575–600	E	
	For other voltages and frequencies, see Factory Modifications page 17-117.		

Standard Width Enclosure with Solid State Overload, 3-Phase, 3-Pole

Max Hp				NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Overload		Enclosure									
200 Volts	230 Volts	460 Volts	575 Volts				Amp Range	Frame Size	NEMA 1 General Purpose		NEMA 4/4X Stainless ^② 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, NEMA 3/3R ^③ , NEMA 4 Painted (thru size 4) Industrial Use Weatherproof Watertight, Dust-tight	
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Motor Circuit Interrupter ETI Amps	Amp Range	Frame Size	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
½	½	1	1	0	—	3	0.75–3.4	A	26CUB92B*		26CUB92W*		26CUB92F*		26CUB92H*		26CUB92N*	
2	2	5	5	0	—	10	3–12	A1	26CUC92B*		26CUC92W*		26CUC92F*		26CUC92H*		26CUC92N*	
3	3	—	—	0	—	25	5.5–22	A1	26CUD92B*		26CUD92W*		26CUD92F*		26CUD92H*		26CUD92N*	
½	½	1	1	1	—	3	0.75–3.4	A	26DUB92B*		26DUB92W*		26DUB92F*		26DUB92H*		26DUB92N*	
2	2	5	5	1	—	10	3–12	A1	26DUC92B*		26DUC92W*		26DUC92F*		26DUC92H*		26DUC92N*	
3	3	7½	10	1	—	25	5.5–22	A1	26DUD92B*		26DUD92W*		26DUD92F*		26DUD92H*		26DUD92N*	
7½	7½	10	—	1	—	30	10–40	A1	26DUE92B*		26DUE92W*		26DUE92F*		26DUE92H*		26DUE92N*	
—	—	15	15	—	1½	40	10–40	A1	26EUE92B*		26EUE92W*		26EUE92F*		26EUE92H*		26EUE92N*	
10	15	25	25	2	—	50	13–52	B	26FUF92B*		26FUF92W*		26FUF92F*		26FUF92H*		26FUF92N*	
15	20	30	30	—	2½	100	25–100	B	26GUG92B*		26GUG92W*		26GUG92F*		26GUG92H*		26GUG92N*	
25	30	50	50	3	—	125	25–100	B	26HUG92B*		26HUG92W*		26HUG92F*		26HUG92H*		26HUG92N*	
30	40	75	75	—	3½	125	50–200	B	26IUH92B*		26IUH92W*		26IUH92F*		26IUH92H*		26IUH92N*	
40	50	100	100	4	—	150	50–200	B	26JUH92B*		26JUH92W*		26JUH92F*		26JUH92H*		26JUH92N*	
50	75	150	200	5	—	250	55–250	—	26LPT92B*		26LPT92E* ^③		—	—	—	—	26LPT92N*	
75	100	200	—	5	—	400	55–250	—	26LP92B*		26LP92E* ^③		—	—	—	—	26LP92N*	
100	125	250	300	6	—	400	160–630	—	26MPW92B*		26MPW92E* ^③		—	—	—	—	26MPW92N*	
150	200	400	400	6	—	600	160–630	—	26MPX92B*		26MPX92E* ^③		—	—	—	—	26MPX92N*	
—	250	500	500	7* ^④	—	800	400–1220	A1+CT	26NUV92B*		—	—	—	—	—	—	26NUV92N*	
—	300	600	600	7* ^④	—	1000	400–1220	A1+CT	26NUY92B*		—	—	—	—	—	—	26NUY92N*	
—	400	800	800	8 ^⑤	—	1200	400–1220	A1+CT	26PUW92B*		—	—	—	—	—	—	26PUW92N*	
—	450	900	900	8 ^⑤	—	1600	400–1220	A1+CT	26PUZ92B*		—	—	—	—	—	—	26PUZ92N*	

Standard Width Enclosure with Ambient Compensated Bimetal Overload, 3-Phase, 3-Pole

1/2	1/2	1	1	0	—	3	18		26CP92BA*81	26CP92WA*81	26CP92FA*81	26CP92HA*81	26CP92NA*81
1	1	3	3	0	—	10	18		26CP92BB*81	26CP92WB*81	26CP92FB*81	26CP92HB*81	26CP92NB*81
3	3	5	5	0	—	25	18		26CP92BC*81	26CP92WC*81	26CP92FC*81	26CP92HC*81	26CP92NC*81
1/2	1/2	1	1	1	—	3	27		26DP92BA*81	26DP92WA*81	26DP92FA*81	26DP92HA*81	26DP92NA*81
1	1	3	3	1	—	10	27		26DP92BB*81	26DP92WB*81	26DP92FB*81	26DP92HB*81	26DP92NB*81
3	3	7 1/2	7 1/2	1	—	25	27		26DP92BD*81	26DP92WD*81	26DP92FD*81	26DP92HD*81	26DP92ND*81
7 1/2	7 1/2	10	10	1	—	30	27		26DP92BE*81	26DP92WE*81	26DP92FE*81	26DP92HE*81	26DP92NE*81
—	—	15	15	—	1 1/2	40	40		26EP92BF*81	26EP92WF*81	26EP92FF*81	26EP92HF*81	26EP92NF*81
10	10	—	—	—	1 1/2	50	40		26EP92BG*81	26EP92WG*81	26EP92FG*81	26EP92HG*81	26EP92NG*81
—	—	20	20	2	—	40	45		26FP92BH*81	26FP92WH*81	26FP92FH*81	26FP92HH*81	26FP92NH*81
10	15	25	25	2	—	50	45		26FP92BJ*81	26FP92WJ*81	26FP92FJ*81	26FP92HJ*81	26FP92NJ*81
10	15	30	30	—	2 1/2	50	60		26GP92BK*81	26GP92WK*81	26GP92FK*81	26GP92HK*81	26GP92NK*81
15	20	—	—	—	2 1/2	100	60		26GP92BL*81	26GP92WL*81	26GP92FL*81	26GP92HL*81	26GP92NL*81
—	—	30	30	3	—	50	90		26HP92BM*81	26HP92WM*81	26HP92FM*81	26HP92HM*81	26HP92NM*81
25	30	50	50	3	—	125	90		26HP92BN*81	26HP92WN*81	26HP92FN*81	26HP92HN*81	26HP92NN*81
30	40	75	75	—	3 1/2	125	115		26IP92BP*81	26IP92WP*81	26IP92FP*81	26IP92HP*81	26IP92NP*81
40	50	100	100	4	—	150	135		26JP92BR*81	26JP92WR*81	26JP92FR*81	26JP92HR*81	26JP92NR*81

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

① Dual voltage coils not available in starter sizes 5–8.

② For conduit hubs and conversion instructions, see page 17-108.

③ Enclosure is NEMA Type 4 (painted steel).

④ F coil 100–250V AC 50/60Hz, or DC,

H coil 150–500V AC 50/60Hz, or DC

⑤ Only available

F coil 100–250V AC 50/60Hz, or DC