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Heavy Duty Contactors

3 Phase, Class 40

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. - Technical Data see www.sea.siemens.com/controls		24 Separate Control	J
			120 Separate Control	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

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 ^⑤	NEMA 1 General Purpose	NEMA 4/4X Stainless ^② Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Watertight, Dusttight Corrosion Resistant	NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Bolted Enclosures Indoor/Outdoor Use	NEMA 12 NEMA 3/3R Industrial Use Weatherproof
200 Volts	230 Volts	460 Volts	575 Volts	Contactor Amp Rating	NEMA Size	Half Size	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1 1/2	1 1/2	2	2	9	00	—	40BP32A*	40BP32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
3	3	5	5	18	0	—	40CP32A*	40CP32B*	40CP32W*	40CP32F*	40CP32H*	40CP320*
7 1/2	7 1/2	10	10	27	1	—	40DP32A*	40DP32B*	40DP32W*	40DP32F*	40DP32H*	40DP320*
10	10	15	15	40	—	1 3/4	40EP32A*	40EP32B*	40EP32W*	40EP32F*	40EP32H*	40EP320*
10	15	25	25	45	2	—	40FP32A*	40FP32B*	40FP32W*	40FP32F*	40FP32H*	40FP320*
15	20	30	30	60	—	2 1/2	40GP32A*	40GP32B*	40GP32W*	40GP32F*	40GP32H*	40GP320*
25	30	50	50	90	3	—	40HP32A*	40HP32B*	40HP32W*	40HP32F*	40HP32H*	40HP320*
30	40	75	75	115	—	3 1/2	40IP32A*	40IP32B*	40IP32W*	40IP32F*	40IP32H*	40IP320*
40	50	100	100	135	4	—	40JG32A*	40JG32B*	40JG32W*	40JG32F*	40JG32H*	40JG320*
75	100	200	200	270	5	—	40LP32A*	40LP32B*	40LP32E*	—	40LP32H*	40LP320*
150	200	400	400	540	6	—	40MP32A*	40MP32B*	40MP32E*	—	—	40MP320*
—	300	600	600	810	7	—	40NH32A*	40NH32B*	40NH32E*	—	—	40NH320*
—	450	900	900	1215	8	—	40PH32A*	40PH32B*	40PH32E*	—	—	40PH320*

Extra Wide Enclosure, 3 Phase, 3 Pole

Max HP				Contactor Amp Rating	NEMA Size	Half Size	Enclosure			
200 Volts	230 Volts	460 Volts	575 Volts				NEMA 1 ^① General Purpose	NEMA 4/4X Stainless Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Indoor/Outdoor Use	NEMA 12 NEMA 3/3R Industrial Use Weatherproof Bolted Enclosures
200 Volts	230 Volts	460 Volts	575 Volts	Contactor Amp Rating	NEMA Size	Half Size	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1 1/2	1 1/2	2	2	9	00	—	40BP82B*	Use Size 0	Use Size 0	Use Size 0
3	3	5	5	18	0	—	40CP82B*	40CP82W*	40CP82H*	40CP820*
7 1/2	7 1/2	10	10	27	1	—	40DP82B*	40DP82W*	40DP82H*	40DP820*
10	10	15	15	40	—	1 3/4	40EP82B*	40EP82W*	40EP82H*	40EP820*
10	15	25	25	45	2	—	40FP82B*	40FP82W*	40FP82H*	40FP820*
15	20	30	30	60	—	2 1/2	40GP82B*	40GP82W*	40GP82H*	40GP820*
25	30	50	50	90	3	—	40HP82B*	40HP82W*	40HP82H*	40HP820*
30	40	75	75	115	—	3 1/2	40IP82B*	40IP82W*	40IP82H*	40IP820*
40	50	100	100	135	4	—	40JG82B*	40JG82W*	40JG82H*	40JG820*

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

② Enclosure is NEMA Type 4 (painted steel).

③ Only available

S coil 24-60V DC

F coil 100-250V AC 50/60Hz, or DC

H coil 150-500V AC 50/60Hz, or DC

④ Only available

F coil 100-250V AC 50/60Hz, or DC

⑤

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

⑥ Lugs are not included

Heavy Duty Contactors

Single Phase, 4 Pole & Vacuum, Class 40

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. - Technical Data see www.sea.siemens.com/controls		24 Separate Control	J
			120 Separate Control	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

Open Type & Standard Width Enclosure, Single Phase, 2 Pole^{③④}

Max HP			NEMA Size	Half Size	Enclosure					
115 Volts	208/230 Volts	Contactor Amp Rating			Open Type Standard Auxiliary Contacts ^⑤	NEMA 1 General Purpose Watertight, Dusttight	NEMA 4/4X Stainless ^② Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Div 1 and Div 2 Corrosion Resistant	NEMA 7 & 9 NEMA 3 & 4 Industrial Use Class I Groups C & D Class II Groups E, F & G Bolted Enclosures Indoor/Outdoor Use	NEMA 12 NEMA 3/3R Weatherproof
					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/3	1	9	00	—	40BP12A*	40BP12B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
1	2	18	0	—	40CP12A*	40CP12B*	40CP12W*	40CP12F*	40CP12H*	40CP120*
2	3	27	1	—	40DP12A*	40DP12B*	40DP12W*	40DP12F*	40DP12H*	40DP120*
3	5	35	1P	—	40EP12A*	40EP12B*	40EP12W*	40EP12F*	40EP12H*	40EP120*
3	7 ^{1/2}	45	2	—	40FP12A*	40FP12B*	40FP12W*	40FP12F*	40FP12H*	40FP120*
5	10	60	—	2 ^{1/2}	40GP12A*	40GP12B*	40GP12W*	40GP12F*	40GP12H*	40GP120*
7 ^{1/3}	15	90	3	—	40HP12A*	40HP12B*	40HP12W*	40HP12F*	40HP12H*	40HP120*
—	—	115	—	3 ^{1/2}	40IP12A*	40IP12B*	40IP12W*	40IP12F*	40IP12H*	40IP120*
—	—	135	4	—	40JG12A*	40JG12B*	40JG12W*	40JG12F*	40JG12H*	40JG120*

Open Type & Standard Width Enclosure, 4 Pole

Max HP					NEMA Size	Half Size	Enclosure				
200 Volts	230 Volts	460 Volts	575 Volts	Contactor Amp Rating			Open Type General Purpose Contacts Included	NEMA 1 General Purpose	NEMA 4/4X Stainless Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Watertight, Dusttight Corrosion Resistant	NEMA 7 & 9 NEMA 3 & 4 Div 1 and Div 2 Class I Groups C & D Class II Groups E, F & G Bolted Enclosures Indoor/Outdoor Use
							Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/3	1 ^{1/2}	2	2	9	00	—	40BP22A*	40BP22B*	Use Size 0	Use Size 0	Use Size 0
2	3	5	5	18	0	—	40CP22A*	40CP22B*	40CP22W*	40CP22F*	40CP22H*
3	7 ^{1/2}	10	10	27	1	—	40DP22A*	40DP22B*	40DP22W*	40DP22F*	40DP22H*
5	10	15	15	40	—	1 ^{3/4}	40EP22A*	40EP22B*	40EP22W*	40EP22F*	40EP22H*

Vacuum Contactors, 3 Phase, 3 Pole^①

	Max HP				Contactor Amp Rating	NEMA Size	Open Type
	200V	230V	460V	575V			Catalogue Number
	40	50	100	100	225	4	40JV32A*
	75	100	200	200	300	5	40LV32A*
	150	200	400	400	500	6	40MV32A*

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 Dual voltage coils not available for vacuum contactors.
② To order single phase contactor in an extra wide enclosure, order the enclosure kit and the open style contactor as separate items.

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 1 Normally Open Auxiliary.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mail.

Siemens Canada Limited ICP 2014

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Heavy Duty Contactors

Reversing Contactor, Class 43

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. - Technical Data see www.sea.siemens.com/controls		24 Separate Control 120 Separate Control 110–120/220–240 ^① 200–208 220–240 277 220–240/440–480 ^① 440–480 575–600	J F A D G L C H E

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 Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Watertight, Dusttight 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
							Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1 ^{1/2}	1 ^{1/2}	2	2	9	00	—	43BP32A*	43BP32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
3	3	5	5	18	0	—	43CP32A*	43CP32B*	43CP32W*	43CP32F*	43CP32H*	43CP320*
7 ^{1/2}	7 ^{1/2}	10	10	27	1	—	43DP32A*	43DP32B*	43DP32W*	43DP32F*	43DP32H*	43DP320*
10	10	15	15	40	—	1 ^{3/4}	43EP32A*	43EP32B*	43EP32W*	43EP32F*	43EP32H*	43EP320*
10	15	25	25	45	2	—	43FP32A*	43FP32B*	43FP32W*	43FP32F*	43FP32H*	43FP320*
15	20	30	30	60	—	2 ^{1/2}	43GP32A*	43GP32B*	43GP32W*	43GP32F*	43GP32H*	43GP320*
25	30	50	50	90	3	—	43HP32A*	43HP32B*	43HP32W*	43HP32F*	43HP32H*	43HP320*
30	40	75	75	115	—	3 ^{1/2}	43IP32A*	43IP32B*	43IP32W*	43IP32F*	43IP32H*	43IP320*
40	50	100	100	135	4	—	43JG32A*	43JG32B*	43JG32W*	43JG32F*	43JG32H*	43JG320*
75	100	200	200	270	5	—	43LP32A*	43LP32B*	43LP32E* ^③	—	—	43LP320*
100	200	400	400	540	6	—	43MP32A*	43MP32B*	43MP32E* ^③	—	—	43MP320*
—	300	600	600	810	7 ⁽⁵⁾	—	43NH32A*	43NH32B*	43NH32E*	—	—	43NH320*
—	450	900	900	1215	8	—	43PH32A*	—	—	—	—	—

Open Type & Standard Width Enclosure, Single Phase, 3 Wire, 2 Pole^④

Max HP		Contactor Amp Rating	NEMA Size	Enclosure					
115 Volts	208/ 230 Volts			Open Type	NEMA 1 General Purpose Watertight, Dusttight	NEMA 4/4X Stainless Watertight, Dusttight Corrosion Resistant 304 Stainless Steel	NEMA 4X Fiberglass Watertight, Dusttight 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
				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1 1/3	1	9	00	43BP12A*	43BP12B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
1	2	18	0	43CP12A*	43CP12B*	43CP12W*	43CP12F*	43CP12H*	43CP120*
2	3	27	1	43DP12A*	43DP12B*	43DP12W*	43DP12F*	43DP12H*	43DP120*
3	5	35	1P	43EP12A*	43EP12B*	43EP12W*	43EP12F*	43EP12H*	43EP120*

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

② Enclosure is NEMA Type 4 (painted steel).

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 Only available

S coil 24–60V DC

F coil 100–250V AC 50/60Hz, or DC

H coil 150–500V AC 50/60Hz, or DC

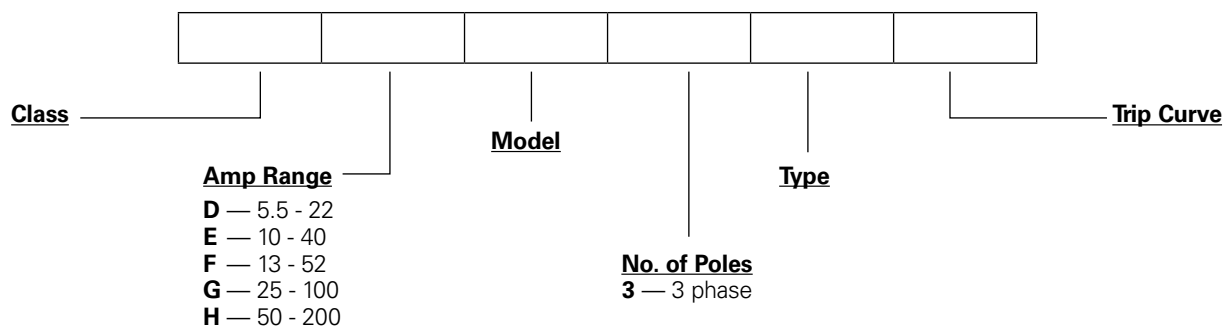
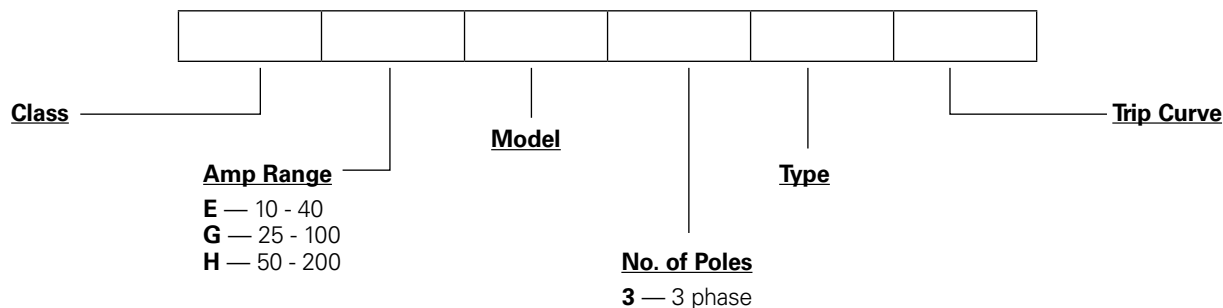
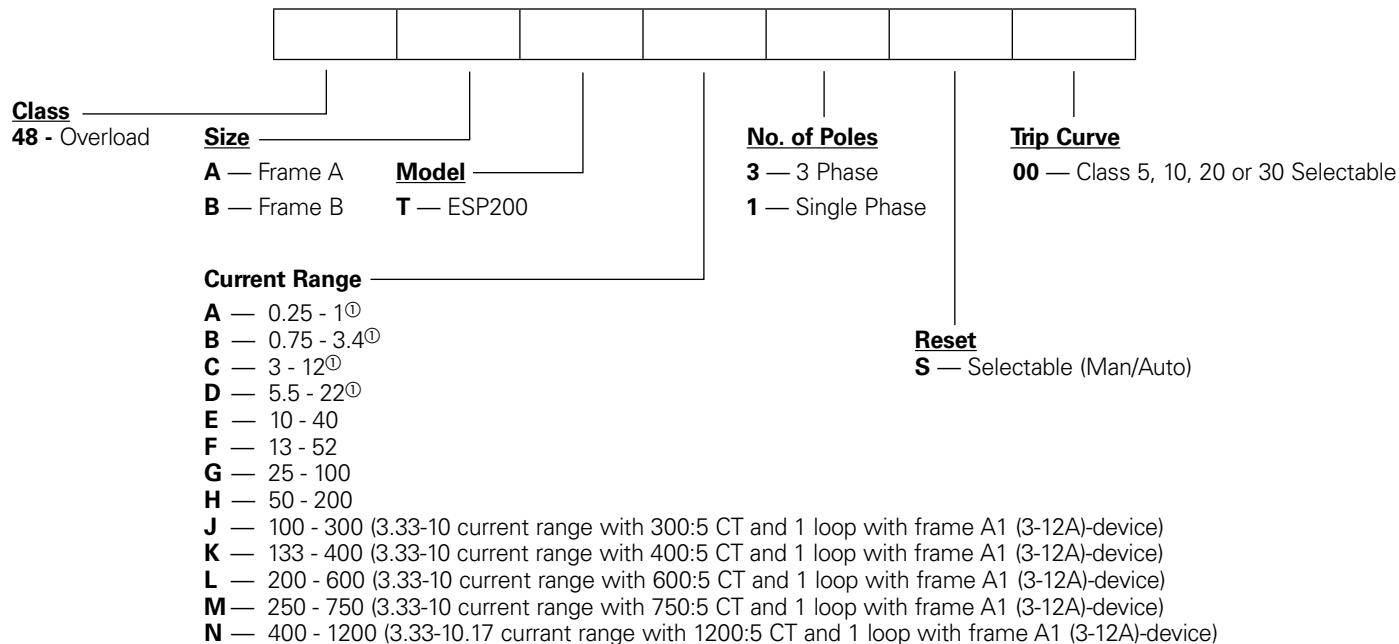
⑤ Only available

F coil 100–250V AC 50/60Hz, or DC

Heavy Duty Control

Catalogue Numbering System for ESP200 SS O/L Relay

General



① Ranges available in Single or 3-phase.

Overload Relays

Solid State ESP200, Class 48, 958 and 958L

Selection



Features	Benefits
▪ Trip Classes - 5, 10, 20, or 30 Selectable by DIP-switches	▪ Field changeable reduces time and inventory. Suitable for light, normal and heavy starting conditions
▪ Phase Loss Protection - Trips in less than 3 Seconds	▪ Protects motor burn out and minimizes motor heating up
▪ Phase Unbalance - Trips based on Trip Class selected	▪ Minimizes temperature rise of the motor on a asymmetrical three-phase-system
▪ Ground Fault - Trips 60% of Motor Current	▪ Provides optimum system protection of motors against high-resistance short-circuits or ground faults due to moisture, condensation, damage of insulation or any other reason
▪ Trip Indicator - Visible	▪ Save time, faster to identify overload Trip
▪ Ambient Insensitive	▪ Prevents nuisance tripping
▪ No Heaters Required	▪ Saves cost and eliminates time for installation of heaters
▪ Self-Powered - No outside source required	▪ Reduce cost for external power supply
▪ FLA dial with wide Adjustment - 4:1 ratio	▪ Provides wide range, reduces inventory
▪ Self Protected in short circuit condition (when used with proper fuses or motor starter protector)	▪ Unlike bimetal overloads, this eliminates replacement of the overload heaters after short circuit
▪ Test Button - Tests Electronics	▪ Tests the complete electronic functions including the trip mechanism. Increases up time
▪ Thermal Memory	▪ Prevents re-starting motor when it is still hot
▪ Conformally coated circuit board	▪ Resists against environmental conditions
▪ 1 NO and 1NC Contacts Standard. B600, R300	▪ Makes it easier for user to wire local contacts
▪ Operating Temperature: -25 °C - 65 °C	▪ Wide operating range prevents nuisance tripping
▪ Repeat Accuracy <1%	▪ For more precise settings and reduced nuisance tripping
▪ Removable terminals	▪ Terminals can be removed without removing wires. Saves time for replacements
▪ Automatic reset	▪ Auto. Reset is 3 minutes after tripping, allowing motor to cool down before re-start. If Manual Reset is selected, overload can be reset immediately
▪ Remote reset	▪ As an alternative to the mechanical RESET options, an electrical remote RESET can be used by applying 24 V DC to terminals A3 and A4
▪ DIN Rail Mounted	▪ Reduces installation time
▪ Touch - Safe Terminals	▪ Protects against accidental touching of live circuits
▪ UL listed CSA certified	▪ Third party approval standard

Overload Relays

Solid State ESP200, Class 48, 958 and 958L

Selection



ESP200 Solid State Overload



958 or 958L Solid State Overload

Applications

ESP200 Solid State Overloads

Designed for a wide variety of applications. The field selectable Trip Class 5, 10, 20 or 30 can easily be set by 2 DIP switches. This eliminates the guess factor of an application requirements and provides reduced inventory for multiple applications. The inherent benefits of the ESP200 ultimately results in cost savings for the user.

ESP200 has a 4:1 current adjustment range with a fine adjustment dial labeled in full load amps. The heaterless overload minimizes the heat trapped in the enclosures, reduces cost for ventilation or cooling. Easily accessible Reset button, provides visible and audible indications to ensure the tripped overload is ready to re-start.

Designed to replace thermal, or ESP100 overload relays for any application. It has the same dimensions and footprint of the ESP100 overload relays. It can be directly coupled to the contactors or remotely mounted. It can be used with other types of controllers for applications requiring DP or IEC contactors. As a retrofit for other brands, it is used with a plate available for retrofitting competitive products.

958 ESP200 Special Use Solid State Overloads

This overload is specifically designed for special applications, to provide excellent protection of hermetically sealed and artificially cooled motors that require ambient insensitive and quick trip response times. Combined with a series lockout relay, it provides unsurpassed protection for hermetically sealed compressor motors in air conditioning applications. The combination of high trip speed, current adjustment, and ease of installation makes it suitable for these applications. The trip curves are customized to provide proper overload protection for these loads without causing nuisance tripping.

It has selectable manual or automatic reset mode, and provides ground fault selection to protect equipment from damage in case of a fault.

958L ESP200 Oil Field Solid State Overloads

Specifically designed for the oil market and the cycling loads experienced with these types of pumping applications. These overload relays provide protection for standard motors, oil well pump motors, multi-torque connections, and ultra-high slip motors.

Rotors can be damaged in less than 15 seconds during motor stall conditions if electrical power is not removed. To prevent damage during motor stall, the 958L solid state overload removes the power in 7 seconds at 250% lock rotor current. Therefore, the motor casing and the rotor will be protected from being damage saving the user money and time.

Overload Relays

Solid State Class 48, ESP200 and 3RB20

Selection



3-Phase, 48ATC3S00

Ordering Information

- ▶ To retrofit or direct mount to a contactor, order 49ASMP1, 2, or 3 separately. See Retrofit Plates below.
- ▶ For remote mounting of frame size A order 49ASMS1 terminals separately.

Solid State - Class 48

Current Adjustment Range	Phase	Frame Size	Catalogue Number
0.25–1	3	"A"	48ATA3S00
0.75–3.4	3	"A"	48ATB3S00
3–12	3	"A1"	48ATC3S00
5.5–22	3	"A1"	48ATD3S00
10–40	3	"A1"	48ATE3S00
13–52	3	"B"	48BTF3S00
25–100	3	"B"	48BTG3S00
50–200	3	"B"	48BTH3S00
100–300	3	"A1" ^②	48ATJ3S00
133–400	3	"A1" ^⑧	48ATK3S00
200–600	3	"A1" ^④	48ATL3S00
250–750	3	"A1" ^⑦	48ATM3S00
400–1220	3	"A1" ^⑤	48ATN3S00
0.25–1	1	"A"	48ATA1S00
0.75–3.4	1	"A"	48ATB1S00
3–12	1	"A1"	48ATC1S00
5.5–22	1	"A1"	48ATD1S00

Solid State - 3RB206^⑥, 3-Phase, Manual/Auto Reset

For Contactor Size	Setting Range Amps	Class 10 Catalog Number	Class 20 Catalog Number
5	55 - 250	3RB2066-1GC2	3RB2066-2GC2
6	160 - 630	3RB2066-1MC2	3RB2066-2MC2

Retrofit Plates for Contactors, Class 48

Replacement for Starter Sizes	ESP200 Overload Frame Size ⁽¹⁾	Retrofit Plate Suffix
Size 00–1 ^{3/4}	A or A1	1P
Size 2, 2 ^{1/2}	B	2P
Size 3, 3 ^{1/2}	B	3P
Size 4	B	4P

① To determine frame size of replacement solid state overload, refer to retrofit plates table above.

② Requires use of 300:5 Current Transformers–3 of 97CT005.

④ Requires use of 600:5 Current Transformers–3 of 97CT008.

⑤ Requires use of 1200:5 Current Transformers–3 of 97CT012.

⑥ Overload has busbar connections.

⑦ Requires use of 750:5 Current Transformers–3 of 97CT009.

⑧ Requires use of 400:5 Current Transformers–3 of 97CT006.

Overload Relays

Special Application Solid State Overloads, Class 958 and 958L

Selection



Class 958, 958L

Ordering Information

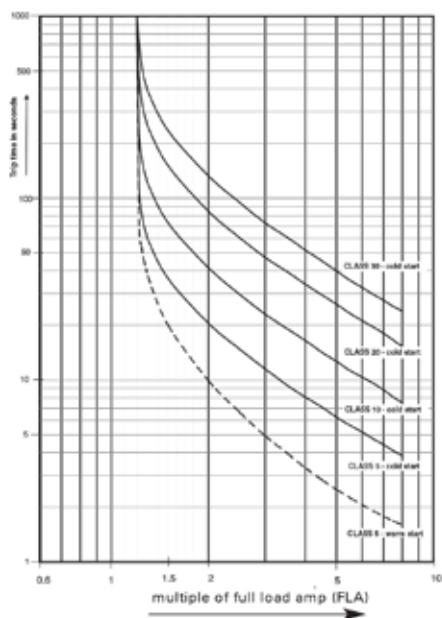
Current Transformers

Rating	Catalogue Number
150:5	97CT002
200:5	97CT003
250:5	97CT004
300:5	97CT005
400:5	97CT006
600:5	97CT008
750:5	97CT009
1200:5	97CT012

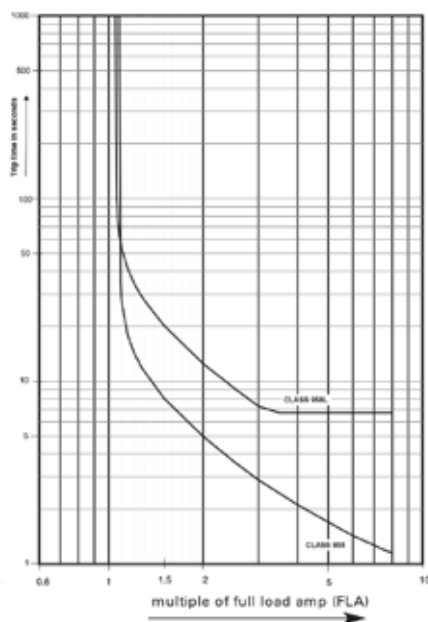
Solid State - Class 958 and 958L

Current Adjustment Range	Phase	Frame Size	Catalogue Number
10-40	3	"A1"	958EB3SA
25-100	3	"B"	958GB3SA
50-200	3	"B"	958HB3SA
5.5-22	3	"A1"	958LB3SA
10-40	3	"A1"	958LEB3SA
13-52	3	"B"	958LFB3SA
25-100	3	"B"	958LGB3SA
50-200	3	"B"	958LHB3SA

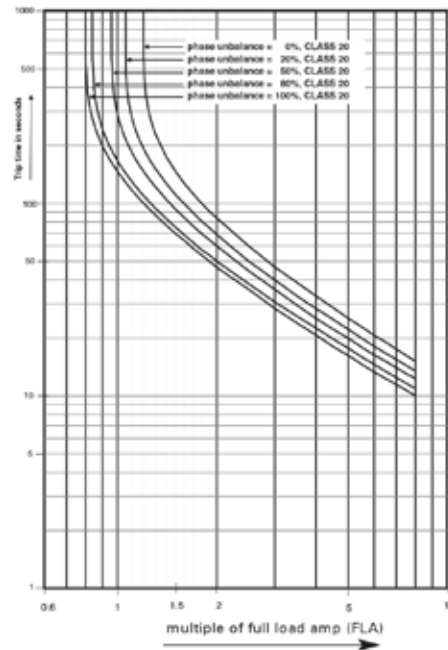
Time - Current - Characteristics
CLASS 48



Time - Current - Characteristics
CLASS 958, 958L



Trip - curve depending on unbalance
CLASS 20



① Temperature rating 25° to 60°C

Overload Relays

ESP200 Data

Selection

Catalogue Number	1phase/ 3phase	Trip CLASS	Phase Loss < 3sec	Phase Unbalance	Reset Function	Ground Fault	Current Range	Frame Size	Main Circuit: with Terminals or Feed- through Openings	External CT	Possible Contactors NEMA Size	Min. Diameter of the Openings	Max. Wire Gauge
48ATA3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	0.25 - 1.0A	A	Terminals	No	00, 0, 1	—	—
48ATB3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	0.75 - 3.4A	A	Terminals	No	00, 0, 1	—	—
48ATC3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	3.0 - 12.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4
48ATD3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	5.5 - 22.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4
48ATE3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	10.0 - 40.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ MCM 250
48BTF3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	13.0 - 52.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
48BTG3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	25.0 - 100.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
48BTH3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	50.0 - 200.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
48ATJ3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	100.0 - 300.0A	A1	Feed-through Openings	Yes 300:5 Use 2 loops	—	8.6mm 0.34 in.	2 x ~ AWG 8
48ATK3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	133.0 - 400.0A	A1	Feed-through Openings	Yes 400:5 Use 2 loops	—	8.6mm 0.34 in.	2 x ~ AWG 8
48ATL3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	200.0 - 600.0A	A1	Feed-through Openings	Yes 600:5 Use 2 loops	—	8.6mm 0.34 in.	2 x ~ AWG 8
48ATM3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	250.0 - 750.0A	A1	Feed-through Openings	Yes 750:5 Use 2 loops	—	8.6mm 0.34 in.	2 x ~ AWG 8
48ATN3S00	3phase	5/10/20/30 Selectable	Selectable	Selectable	auto/manual/ remote	Selectable	400.0 - 1220.0A	A1	Feed-through Openings	Yes 1200:5 Use 2 loops	—	8.6mm 0.34 in.	2 x ~ AWG 8
958EB3SA	3phase	Class 958	Yes	Off	auto/manual/ remote	Selectable	10.0 - 40.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ MCM 250
958GB3SA	3phase	Class 958	Yes	Off	auto/manual/ remote	Selectable	25.0 - 100.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
958HB3SA	3phase	Class 958	Yes	Off	auto/manual/ remote	Selectable	50.0 - 200.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
958LDB3SA	3phase	Class 958L	Yes	Off	auto/manual/ remote	Selectable	5.5 - 22.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4
958LEB3SA	3phase	Class 958L	Yes	Off	auto/manual/ remote	Selectable	10.0 - 40.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4
958LFB3SA	3phase	Class 958L	Yes	Off	auto/manual/ remote	Selectable	13.0 - 52.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
958LGB3SA	3phase	Class 958L	Yes	Off	auto/manual/ remote	Selectable	25.0 - 100.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
958LHB3SA	3phase	Class 958L	Yes	Off	auto/manual/ remote	Selectable	50.0 - 200.0A	B	Feed-through Openings	No	2, 2 ^{1/2} , 3, 3 ^{1/2} , 4	21.1mm 0.83 in.	~ MCM 250
48ATA1S00	1phase	5/10/20/30 Selectable	Off	Off	auto/manual/ remote	Selectable	0.25 - 1.0A	A	Terminals	No	00, 0, 1	—	—
48ATB1S00	1phase	5/10/20/30 Selectable	Off	Off	auto/manual/ remote	Selectable	0.75 - 3.4A	A	Terminals	No	00, 0, 1	—	—
48ATC1S00	1phase	5/10/20/30 Selectable	Off	Off	auto/manual/ remote	Selectable	3.0 - 12.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4
48ATD1S00	1phase	5/10/20/30 Selectable	Off	Off	auto/manual/ remote	Selectable	5.5 - 22.0A	A1	Feed-through Openings	No	00, 0, 1, 1 ^{3/4}	8.6mm 0.34 in.	~ AWG 4

General Data

Trips in the event of:	Overload, phase failure, phase unbalance, ground fault
Trip class	CLASS 5/10/20/30 (selectable) or CLASS 958 or CLASS 958-L
Phase failure sensitivity	Trip time after phase-loss: < 3sec
Reset options	Manual, automatic and remote RESET
Manual RESET	immediately
Automatic RESET	approx. 3min
Remote RESET	immediately
Test function	Test of electronics by pressing the TEST button / test of auxiliary contacts and wiring of control circuit by actuating the switch position indicator slide /self-monitoring

Ambient Temperatures

Storage / Transportation	-40°C ... +85°C
Operation	-25°C ... +60°C
Temperature compensation	+60°C
Shock resistance	Vibration: 1-6Hz, 15mm; 6-500Hz, 20m/s ² ; 10 cycles Shock: Half-sine; 60m/s ² /10ms 3x pos.and 3x neg

Electromagnetic Compatibility

Interference immunity	
Burst (Showering arc test)	2kV (power ports), 1kV (signal ports)
Surge	2kV (line to ground), 1kV (line to line)
Electrostatic discharge	8kV (air discharge), 6kV (contact discharge)
Field-related interference	10 V/m

Main Circuit

Rated operational voltage U_e	600V
Rated impulse withstand voltage U_{imp}	8kV
Type of current	AC, 50/60Hz

Auxiliary Circuit

Rated operational voltage U_e	300V
Rated impulse withstand voltage U_{imp}	4kV
Number of NO contacts	1
Number of NC contacts	1
Switching capacity	B600, R300
Contacts are isolated	up to 300 volts when 2 contacts are used. Above 300 V use same polarity up to 600 volts when 1 contact is used

Screw Terminals

Torque	
Auxiliary contact	7 lb. in. ... 10.3 lb. in. (0.8 ... 1.2 Nm)
Mounting on mounting plate	11 lb. in. (1.2 Nm)
Power terminals	20 lb. in. 24 lb. in. (2.3 ... 2.7 Nm)
Altitude	6600 ft.
Touch-safe	Auxiliary contacts Power terminals A frame size
Humidity	0 ... 95% non-condensing
Drop test	according to SN 18013
Printed Circuit Board	Conformal coated
Power consumption (Loss)	< 1.5 W

Short Circuit ratings:

0.25 ... 1.0A	
Standard	600V / 1kA: 6A RK5
High fault	600V / 100kA: 50A RK5
0.75 ... 3.4A	
Standard	600V / 1kA: 15A RK5
High fault	600V / 100kA: 50A RK5

Repeat Accuracy	< 1%
Approvals	UL, CSA

Control Products

ESP200™ & Starters

Product Overview



Class 48 ESP200



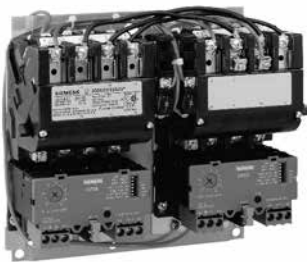
Class 958, 958L



Class 14
NEMA Starters



Class 22
NEMA Reversing Starters



Class 30
NEMA Multi-Speed Starters

Catalogue Numbering System

General

Class		Size	Model	ESP 200® Current Range ^⑤ Three Phase	Breaker HP Code ^② Horsepower Rating 200, 230, 460, 575
17	Combination Starter (Non Fusible, Fusible)	B — 00 C — 0 D — 1 E — 1 ^{3/4} F — 2 G — 2 ^{1/2} H — 3 I — 3 ^{1/2} J — 4 L — 5 M — 6 N — 7 P — 8	U — ESP200 size 0 - 4 & size 7 & 8 P — Thermal size 0 - 3 ^{1/2} Solid state size 5 & 6	A — 0.25 - 1 B — 0.75 - 3.4 C — 3 - 12 D — 5.5 - 22 E — 10 - 40 F — 13 - 52 G — 25 - 100 H — 50 - 200 J — 100 - 300 w/CT's K — 133 - 400 w/CT's L — 200 - 600 w/CT's M — 250 - 750 w/CT's N — 400 - 1200 w/CT's	A — 1/2, 1 1/2, 1, 1 B — 1, 1, 3, 3 C — 3, 3, 5, 5 D — 3, 3, 7 ^{1/2} , 7 ^{1/2} E — 7 ^{1/2} , 7 ^{1/2} , 10, 10 F — —, —, 15, 15 G — 10, 10, —, — H — 7 ^{1/2} , 10, 20, 20 J ^④ — 10, 15, 25, 25 K — —, —, 30, 30 L — 15, 20, —, — M — —, —, 30, 30 N — 25, 30, 50, 50 P — 30, 40, 75, 75 R — 40, 50, 100, 100
		Enclosure Size			
		92 — Standard Width 82 — Extra Wide			
		Enclosure Type			
		B — NEMA 1 F — NEMA 4X Fiberglass H — NEMA 7/9/3/4, Bolted (Class 18 & 26 only) N — NEMA 12 (Field convertible to 3/3R/4) W — NEMA 4/4X 304 Stainless Steel			

Class 14 — Across the Line NEMA Motor Starter 22 — Reversing NEMA Motor Starter 40 — Across the Line NEMA Magnetic Contactor 43 — Reversing NEMA Magnetic Contactor		Size B — 00 C — 0 D — 1 E — 1 ^{3/4} F — 2 G — 2 ^{1/2} H — 3 I — 3 ^{1/2} J — 4 L — 5 M — 6 N — 7 P — 8		Model U — ESP200 size 00 - 4 Size 7 & 8 P — Thermal size 00 - 4 Solid state size 5 & 6		ESP 200® Current Range^⑤ Three Phase A — 0.25 - 1 B — 0.75 - 3.4 C — 3 - 12 D — 5.5 - 22 E — 10 - 40 F — 13 - 52 G — 25 - 100 H — 50 - 200 J — 100 - 300 w/CT's K — 133 - 400 w/CT's L — 200 - 600 w/CT's M — 250 - 750 w/CT's N — 400 - 1200 w/CT's Single Phase^① A — 0.25 - 1 B — 0.75 - 3.4 C — 3 - 12 D — 5.5 - 22		Pilot Control Circuit 2 — 2 suitable for 3-wire control (NO aux.) Enclosure Size 1 — 2 power poles, 1-phase 3 — 3 power poles, 3-phase 8 — 3 power poles, 3-phase, extra wide enclosure Enclosure Type A — Open B — NEMA 1 F — NEMA 4X Fiberglass H — NEMA 7/9/3/4, Bolted (Class 18 & 26 only) O — NEMA 12 (Field convertible to 3/3R/4) W — NEMA 4/4X 304 Stainless Steel		Coil A^③ — 110 - 120V/220 - 240V@60Hz 110V/190 - 220V@50Hz C^③ — 220 - 240V/440 - 480V@60Hz 190-220V/380 - 440V@50Hz D — 200 - 208V@60Hz E — 550-600V@60Hz 550V@50Hz F — 120V@60Hz 110V@50Hz G — 220 - 240V@60Hz 190 - 220V@50Hz H — 440 - 480V@60Hz 380 - 440V@50Hz J^⑥ — 24V@60Hz 24V@50Hz L — 277V@60Hz 240V@50Hz	

<u>Class</u>	<u>Size</u>	<u>Model</u>	<u>ESP 200®</u>	<u>Type</u>	<u>Line Volts</u>	<u>Enclosure Type</u>	<u>Coil</u>	<u>Disconnect</u>
36 — Non Combination Reduced Voltage Starter	C — 0 D — 1 E — 1 ^{3/4}	U — ESP200 size 0 - 4 & size 7 & 8 P — Thermal size 0 - 3 ^{1/2} Solid state size 5 & 6	<u>Current</u>	T — Auto XFMR P — Part Wind. O — Wye Delta Open Trans. C — Wye Delta Closed Trans.	2 — 230 3 — 380 4 — 460 5 — 575 6 — 200/208	A — Open B — NEMA 1 W — NEMA 4/4X Stainless Steel O — NEMA 12	D E F G H L	<u>Type</u> ^④ D — Non Fused Disc. F — Fusible Disc. P — MCP
37 — Combination Reduced Voltage Starter	G — 2 ^{1/2} H — 3 I — 3 ^{1/2} J — 4 L — 5 M — 6 N — 7 P — 8							

① Single phase ESP200 available on Class 14 Starters only.

② Not used on Class 17. 25 or with ESP200 versions..

③ Not available on sizes 5–8.

④ For Class 37 only.

⑤ Position used for ESP200 only.

⑥ Not available on sizes 7 and 8.

Heavy Duty Starters

Features and Benefits

General



Solid State Starter Class 14

NEMA
DEVICES
14

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

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; 1^{3/4}, 2^{1/2} and 3^{1/2}. 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.

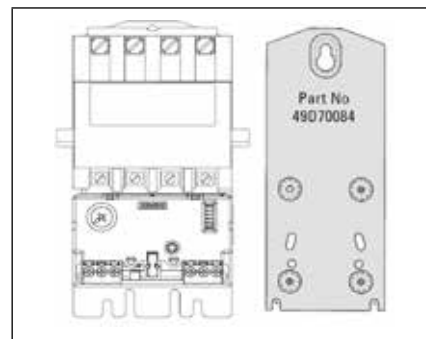
Field Modification Kits

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 1^{3/4}
- 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 00–1^{3/4} 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

General



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
- 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.

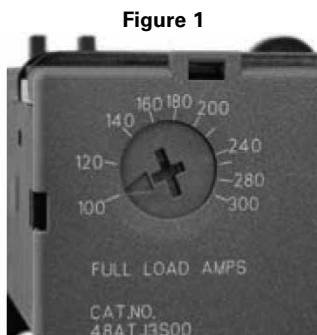
These additional starter sizes have the reserve capacity to handle occasional plugging and jogging applications without derating. Superior operating performance in heavy duty applications is assured by the large current carrying parts, not by derating the device.

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.



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

Replacement for Starter Sizes		Starter Size	Half Size	“Half-Size” Savings Over Next Full Size
230V	460V			
7 ^{1/2}	10	1	—	—
10	15	—	1 ^{3/4}	31%
15	25	2	—	—
20	30	—	2 ^{1/2}	20%
30	50	3	—	—
40	75	—	3 ^{1/2}	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 Starters

Solid State Overload with Auto/Manual Reset, Class 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.		60Hz Voltage	Letter
			24 Separate Control	J
			120 Separate Control	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.			

Open Type & Standard Width 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	Open Type Standard Auxiliary Contacts ^②	NEMA 1 General Purpose	NEMA 4/4X Stainless Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional) ^③	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)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
16	16	1/3	1/2	00	—	0.25–1	A	14BUA32A*	14BUB32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
12	3/4	1 ^{1/2}	2	00	—	0.75–3.4	A	14BUB32A*	14BUB32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
1 ^{1/2}	1 ^{1/2}	2	—	00	—	3–12	A1	14BUC32A*	14BUC32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
16	16	1/3	1/2	0	—	0.25–1	A	14CUA32A*	14CUB32B*	14CUA32W*	14CUB32F*	14CUB32H*	14CUB32O*
12	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	14CUC32A*	14CUC32B*	14CUC32W*	14CUC32F*	14CUC32H*	14CUC32O*
2	2	5	5	0	—	3–12	A1	14CUC32A*	14CUC32B*	14CUC32W*	14CUC32F*	14CUC32H*	14CUC32O*
3	3	—	—	0	—	5.5–22	A1	14CUD32A*	14CUD32B*	14CUD32W*	14CUD32F*	14CUD32H*	14CUD32O*
16	16	1/3	1/2	1	—	0.25–1	A	14DUA32A*	14DUB32B*	14DUA32W*	14DUB32F*	14DUB32H*	14DUB32O*
12	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	14DUB32A*	14DUB32B*	14DUB32W*	14DUB32F*	14DUB32H*	14DUB32O*
2	2	5	5	1	—	3–12	A1	14DUC32A*	14DUC32B*	14DUC32W*	14DUC32F*	14DUC32H*	14DUC32O*
3	3	10	10	1	—	5.5–22	A1	14DUD32A*	14DUD32B*	14DUD32W*	14DUD32F*	14DUD32H*	14DUD32O*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	14DUE32A*	14DUE32B*	14DUE32W*	14DUE32F*	14DUE32H*	14DUE32O*
10	10	15	15	—	1 ^{3/4}	10–40	A1	14EUE32A*	14EUE32B*	14EUE32W*	14EUE32F*	14EUE32H*	14EUE32O*
10	15	25	25	2	—	13–52	B	14FUF32A*	14FUF32B*	14FUF32W*	14FUF32F*	14FUF32H*	14FUF32O*
15	20	30	30	—	2 ^{1/2}	25–100	B	14GUG32A*	14GUG32B*	14GUG32W*	14GUG32F*	14GUG32H*	14GUG32O*
25	30	50	50	3	—	25–100	B	14HUG32A*	14HUG32B*	14HUG32W*	14HUG32F*	14HUG32H*	14HUG32O*
30	40	75	75	—	3 ^{1/2}	50–200	B	14IUH32A*	14IUH32B*	14IUH32W*	14IUH32F*	14IUH32H*	14IUH32O*
40	50	100	100	4	—	50–200	B	14JUH32A*	14JUH32B*	14JUH32W*	14JUH32F*	14JUH32H*	14JUH32O*
75	100	200	200	5	—	55–250	—	14LPU32A*	14LPU32B*	—	—	—	—
150	200	400	400	6	—	160–630	—	14MPX32A*	14MPX32B*	14MPX32E*	—	—	—
—	300	600	600	7 ^⑤	—	400–1220	A1+CT	14NUN32A*	14NUN32B*	14NUN32E*	—	—	—
—	450	900	900	8 ^⑥	—	400–1220	A1+CT	14PUN32A*	14PUN32B*	14PUN32E*	—	—	—

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

Max HP		NEMA Size	Overload		Enclosure					
115 Volts	208/230 Volts		Amp Range	Frame Size	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 ^② Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number				Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/8	1/4	0	0.75–3.4	A	14CUB12A*	14CUB12B*	14CUB12W*	14CUB12F*	14CUB12H*	14CUB12O*
1/4	1/2	0	3–12	A1	14CUC12A*	14CUC12B*	14CUC12W*	14CUC12F*	14CUC12H*	14CUC12O*
1	2	0	5.5–22	A1	14CUD12A*	14CUD12B*	14CUD12W*	14CUD12F*	14CUD12H*	14CUD12O*
1/8	1/4	1	0.75–3.4	A	14DUB12A*	14DUB12B*	14DUB12W*	14DUB12F*	14DUB12H*	14DUB12O*
1/4	1/2	1	3–12	A1	14DUC12A*	14DUC12B*	14DUC12W*	14DUC12F*	14DUC12H*	14DUC12O*
1	2	1	5.5–22	A1	14DUD12A*	14DUD12B*	14DUD12W*	14DUD12F*	14DUD12H*	14DUD12O*

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 14-49.

- 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
 ⑦ Standard Auxiliary Contacts, Same as Contactors.
 ⑧ For 316 Stainless Steel option available.

Heavy Duty Motor Starters

Solid State Overload with Auto/Manual Reset, Class 14

Selection

 NEMA 1	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 Separate Control 120 Separate Control 110–120/220–240 200–208 220–240 277 220–240/440–480 440–480 575–600	J F A D G L C H E

For other voltages and frequencies, see Factory Modifications.

Extra Wide Enclosure, 3-Phase, 3-Pole^①

Max HP						Overload		Enclosure			
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size	NEMA 1 General Purpose	NEMA 4/4X Stainless Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	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)
								Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	00	—	0.25–1	A	14BUA82B*	Use Size 0	Use Size 0	Use Size 0
1/2	3/4	1 ^{1/2}	2	00	—	0.75–3.4	A	14BUB82B*	Use Size 0	Use Size 0	Use Size 0
1 ^{1/2}	1 ^{1/2}	2	—	00	—	3–12	A1	14BUC82B*	Use Size 0	Use Size 0	Use Size 0
1/6	1/6	1/3	1/2	0	—	0.25–1	A	14CUA82B*	14CUA82W*	14CUA82H*	14CUA820*
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	14CUB82B*	14CUB82W*	14CUB82H*	14CUB820*
2	2	5	5	0	—	3–12	A1	14CUC82B*	14CUC82W*	14CUC82H*	14CUC820*
3	3	—	—	0	—	5.5–22	A1	14CUD82B*	14CUD82W*	14CUD82H*	14CUD820*
1/6	1/6	1/3	1/2	1	—	0.25–1	A	14DUA82B*	14DUA82W*	14DUA82H*	14DUA820*
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	14DUB82B*	14DUB82W*	14DUB82H*	14DUB820*
2	2	5	5	1	—	3–12	A1	14DUC82B*	14DUC82W*	14DUC82H*	14DUC820*
3	3	10	10	1	—	5.5–22	A1	14DUD82B*	14DUD82W*	14DUD82H*	14DUD820*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	14DUE82B*	14DUE82W*	14DUE82H*	14DUE820*
10	10	15	15	—	1 ^{3/4}	10–40	A1	14EUE82B*	14EUE82W*	14EUE82H*	14EUE820*
10	15	25	25	2	—	13–52	B	14FUF82B*	14FUF82W*	14FUF82H*	14FUF820*
15	20	30	30	—	2 ^{1/2}	25–100	B	14GUG82B*	14GUG82W*	14GUG82H*	14GUG820*
25	30	50	50	3	—	25–100	B	14HUG82B*	14HUG82W*	14HUG82H*	14HUG820*
30	40	75	75	—	3 ^{1/2}	50–200	B	14IUH82B*	14IUH82W*	14IUH82H*	14IUH820*

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 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.

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

⑥ Standard Auxiliary Contacts, Same as Contactors

⑦ 316 Stainless Steel option available.

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.	60Hz Voltage	Letter	
		24 Separate Control	J	
		120 Separate Control	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.			

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	30	17CUA92B*	17CUA92W*	17CUA92F*	17CUA92N*
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30	17CUB92B*	17CUB92W*	17CUB92F*	17CUB92N*
2	2	5	5	0	—	3–12	A1	30	17CUC92B*	17CUC92W*	17CUC92F*	17CUC92N*
3	3	—	—	0	—	5.5–22	A1	30	17CUD92B*	17CUD92W*	17CUD92F*	17CUD92N*
1/6	1/6	1/3	1/2	1	—	0.25–1	A	30	17DUA92B*	17DUA92W*	17DUA92F*	17DUA92N*
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	30	17DUB92B*	17DUB92W*	17DUB92F*	17DUB92N*
2	2	5	5	1	—	3–12	A1	30	17DUC92B*	17DUC92W*	17DUC92F*	17DUC92N*
3	3	10	10	1	—	5.5–22	A1	30	17DUD92B*	17DUD92W*	17DUD92F*	17DUD92N*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	17DUE92B*	17DUE92W*	17DUE92F*	17DUE92N*
10	10	15	15	—	1 ^{3/4}	10–40	A1	60	17EUE92B*	17EUE92W*	17EUE92F*	17EUE92N*
10	15	25	25	2	—	13–52	B	60	17FUF92B*	17FUF92W*	17FUF92F*	17FUF92N*
15	20	30	30	—	2 ^{1/2}	25–100	B	100	17GUG92B*	17GUG92W*	17GUG92F*	17GUG92N*
20	25	50	50	3	—	25–100	B	100	17HUG92B*	17HUG92W*	17HUG92F*	17HUG92N*
30	40	75	75	—	3 ^{1/2}	50–200	B	200	17IUH92B*	17IUH92W*	17IUH92F*	17IUH92N*
40	50	100	100	4	—	50–200	B	200	17JUH92B*	17JUH92W*	17JUH92F*	17JUH92N*
75	100	200	200	5	—	55–250	—	400	17LPU92B*	17LPU92E*	—	17LPU92N*
150	200	400	400	6	—	160–630	—	800	17MPX92B*	17MPX92E*	—	17MPX92N*
—	300	600	600	7 [Ⓢ]	—	400–1220	A1+CT	1200	17NUN92B*	—	—	17NUN92N*
—	450	900	900	8 [Ⓢ]	—	400–1220	A1+CT	1600	17PUN92B*	—	—	17PUN92N*

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

Max HP		NEMA Size	Half Size	Overload		Disc. Amp Range	Enclosure			
115 Volts	208/230 Volts			Amp Range	Frame Size		NEMA 1 General Purpose	NEMA 4/4X Stainless Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Stee (Optional)	NEMA 4X Fiberglass Watertight, Dusttight Corrosion Resistant	NEMA 12 NEMA 3/3R ^② Industrial Use Weatherproof (Field Convertible to 3/3R)
							Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/8	1/4	0	—	0.75–3.4	A	30	17CUB92B*	17CUB92W*	17CUB92F*	17CUB92N*
1/4	1/2	0	—	3–12	A1	30	17CUC92B*	17CUC92W*	17CUC92F*	17CUC92N*
1	2	0	—	5.5–22	A1	30	17CUD92B*	17CUD92W*	17CUD92F*	17CUD92N*
1/8	1/4	1	—	0.75–3.4	A	30	17DUB92B*	17DUB92W*	17DUB92F*	17DUB92N*
1/4	1/2	1	—	3–12	A1	30	17DUC92B*	17DUC92W*	17DUC92F*	17DUC92N*
1	2	1	—	5.5–22	A1	30	17DUD92B*	17DUD92W*	17DUD92F*	17DUD92N*

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

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

② For 60A disconnect, order fusible cat. no.

③ For 25 HP and 200A disconnect, order fusible cat. no.

④ For 30HP and 200A disconnect, order fusible cat. no.

⑤ For 600A disconnect, order fusible cat. no.

⑥ Enclosure is NEMA Type 4 (painted steel).

⑦ For a single phase motor, multiply the motor nameplate by 0.75 and set the OL dial to the resulting value.

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

⑩ 316 Stainless Steel option available.

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.	60Hz Voltage		Letter
		24 Separate Control		J
		120 Separate Control		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.			

Extra Wide 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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	30	17CUA82B*	17CUA82W*	17CUA82N*
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30	17CUB82B*	17CUB82W*	17CUB82N*
2	2	5	5	0	—	3–12	A1	30	17CUC82B*	17CUC82W*	17CUC82N*
3	3	—	—	0	—	5.5–22	A1	30	17CUD82B*	17CUD82W*	17CUD82N*
1/6	1/6	1/3	1/2	1	—	0.25–1	A	30	17DUA82B*	17DUA82W*	17DUA82N*
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	30	17DUB82B*	17DUB82W*	17DUB82N*
2	2	5	5	1	—	3–12	A1	30	17DUC82B*	17DUC82W*	17DUC82N*
3	3	10	10	1	—	5.5–22	A1	30	17DUD82B*	17DUD82W*	17DUD82N*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	17DUE82B*	17DUE82W*	17DUE82N*
10	10	15	15	—	1 ^{3/4}	10–40	A1	60	17EUE82B*	17EUE82W*	17EUE82N*
10	15	25	25	2	—	13–52	B	60	17FUF82B*	17FUF82W*	17FUF82N*
15	20	30	30	—	2 ^{1/2}	25–100	B	100	17GUG82B*	17GUG82W*	17GUG82N*
20	25	50	50	3	—	25–100	B	100	17HUG82B*	17HUG82W*	17HUG82N*

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

① Dual voltage coils not available in modified starters.

② For 60A disconnect, order fusible cat. no.

③ For 25 HP and 200A disconnect, order fusible cat. no.

④ For 30HP and 200A disconnect, order fusible cat. no.

⑤ 316 Stainless Steel option available.

Combination Heavy Duty Starters

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.	60Hz Voltage	Letter	
		24 Separate Control	J	
		120 Separate Control	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.			

Standard Width Enclosure, 3 Phase, 3-Pole

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number							Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
16	16	—	—	0	—	0.25–1	A	30	30A/250V	17CUA92B*10	17CUA92W*10	17CUA92F*10	17CUA92N*10
—	—	1/3	1/2	0	—	0.25–1	A	30	30A/600V	17CUA92B*11	17CUA92W*11	17CUA92F*11	17CUA92N*11
1/2	34	—	—	0	—	0.75–3.4	A	30	30A/250V	17CUB92B*10	17CUB92W*10	17CUB92F*10	17CUB92N*10
—	—	1 1/2	2	0	—	0.75–3.4	A	30	30A/600V	17CUB92B*11	17CUB92W*11	17CUB92F*11	17CUB92N*11
2	2	—	—	0	—	3–12	A1	30	30A/250V	17CUC92B*10	17CUC92W*10	17CUC92F*10	17CUC92N*10
—	—	5	5	0	—	3–12	A1	30	30A/600V	17CUC92B*11	17CUC92W*11	17CUC92F*11	17CUC92N*11
3	3	—	—	0	—	5.5–22	A1	30	30A/250V	17CUD92B*10	17CUD92W*10	17CUD92F*10	17CUD92N*10
—	—	10	10	0	—	5.5–22	A1	30	30A/600V	17CUD92B*11	17CUD92W*11	17CUD92F*11	17CUD92N*11
16	16	—	—	1	—	0.25–1	A	30	30A/250V	17DUA92B*10	17DUA92W*10	17DUA92F*10	17DUA92N*10
—	—	1/3	1/2	1	—	0.25–1	A	30	30A/600V	17DUA92B*11	17DUA92W*11	17DUA92F*11	17DUA92N*11
1/2	34	—	—	1	—	0.75–3.4	A	30	30A/250V	17DUB92B*10	17DUB92W*10	17DUB92F*10	17DUB92N*10
—	—	1 1/2	2	1	—	0.75–3.4	A	30	30A/600V	17DUB92B*11	17DUB92W*11	17DUB92F*11	17DUB92N*11
2	2	—	—	1	—	3–12	A1	30	30A/250V	17DUC92B*10	17DUC92W*10	17DUC92F*10	17DUC92N*10
—	—	5	5	1	—	3–12	A1	30	30A/600V	17DUC92B*11	17DUC92W*11	17DUC92F*11	17DUC92N*11
3	3	—	—	1	—	5.5–22	A1	30	30A/250V	17DUD92B*10	17DUD92W*10	17DUD92F*10	17DUD92N*10
—	—	10	10	1	—	5.5–22	A1	30	30A/600V	17DUD92B*11	17DUD92W*11	17DUD92F*11	17DUD92N*11
7 1/2	7 1/2	—	—	1	—	10–40	A1	60	60A/250V	17DUE92B*12	17DUE92W*12	17DUE92F*12	17DUE92N*12
—	—	15	15	—	1 3/4	10–40	A1	60	60A/600V	17EUE92B*12	17EUE92W*12	17EUE92F*12	17EUE92N*12
10	10	—	—	—	1 3/4	10–40	A1	60	60A/250V	17EUE92B*13	17EUE92W*13	17EUE92F*13	17EUE92N*13
10	15	—	—	2	—	13–52	B	60	60A/250V	17FUF92B*12	17FUF92W*12	17FUF92F*12	17FUF92N*12
—	—	25	25	2	—	13–52	B	60	60A/600V	17FUF92B*13	17FUF92W*13	17FUF92F*13	17FUF92N*13
—	—	30	—	—	2 1/2	13–52	B	60	60A/600V	17GUF92B*13	17GUF92W*13	17GUF92F*13	17GUF92N*13
—	—	30	—	—	2 1/2	13–52	B	100	100A/600V	17GUF92B*15	17GUF92W*15	17GUF92F*15	17GUF92N*15
15	20	—	—	—	2 1/2	25–100	B	100	100A/250V	17GUG92B*14	17GUG92W*14	17GUG92F*14	17GUG92N*14
20	25	—	—	3	—	25–100	B	100	100A/250V	17HUG92B*14	17HUG92W*14	17HUG92F*14	17HUG92N*14
—	—	50	50	3	—	25–100	B	100	100A/600V	17HUG92B*15	17HUG92W*15	17HUG92F*15	17HUG92N*15
25	30	—	—	3	—	25–100	B	200	200A/250V	17HUG92B*16	17HUG92W*16	17HUG92F*16	17HUG92N*16
30	40	—	—	—	3 1/2	50–200	B	200	200A/250V	17IUH92B*16	17IUH92W*16	17IUH92F*16	17IUH92N*16
—	—	75	75	—	3 1/2	50–200	B	200	200A/600V	17IUH92B*17	17IUH92W*17	17IUH92F*17	17IUH92N*17
40	50	—	—	4	—	50–200	B	200	200A/250V	17JUH92B*16	17JUH92W*16	17JUH92F*16	17JUH92N*16
—	—	100	100	4	—	50–200	B	200	200A/600V	17JUH92B*17	17JUH92W*17	17JUH92F*17	17JUH92N*17
75	100	—	—	5	—	55–250	—	400	400A/250V	17LPU92B*18	17LPU92E*18	—	17LPU92N*18
—	100	—	—	5	—	55–250	—	600	600A/250V ⁽³⁾	17LPU92B*20	17LPU92E*20	—	17LPU92N*20
—	—	125	5	—	55–250	—	400	200A/600V	17LPU92B*17	17LPU92E*17	—	17LPU92N*17	
—	—	200	200	5	—	55–250	—	400	400A/600V	17LPU92B*19	17LPU92E*19	—	17LPU92N*19
—	—	200	—	5	—	55–250	—	600	600A/600V ⁽³⁾	17LPU92B*21	17LPU92E*21	—	17LPU92N*21
150	200	—	—	6	—	160–630	—	600	600A/250V	17MPX92B*20	17MPX92E*20	—	17MPX92N*20
—	—	400	400	6	—	160–630	—	600	600A/600V	17MPX92B*21	17MPX92E*21	—	17MPX92N*21
—	—	400	400	6	—	160–630	—	800	800A/600V	17MPX92B*23	17MPX92E*23	—	17MPX92N*23
—	—	600	600	7 ⁽⁶⁾	—	400–1220	A1+CT	1200	1200A/600V	17NUN92B*23	—	—	17NUN92N*23
—	—	900	900	8 ⁽⁷⁾	—	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 modified starters or in starter sizes 5–8.

② Use Class J fuses only.

③ Enclosure is NEMA Type 4 (painted steel).

④ F coil 100–250V AC 50/60Hz, or DC

⑤ H coil 150–500V AC 50/60Hz, or DC

⑥ Only available

F coil 100–250V AC 50/60Hz, or DC

⑦ 316 Stainless Steel option available.

Combination Heavy Duty Starters

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.	60Hz Voltage		Letter
		24 Separate Control		J
		120 Separate Control		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.			

Extra Wide Enclosure, 3-Phase, 3-Pole

Max HP						Overload					Enclosure		
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 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
				NEMA Size	Half Size			Disc. Amp Range	Fuse Clip Amp/ Volts		Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	—	—	0	—	0.25–1	A	30	30A/250V		17CUA82B*10	17CUA82W*10	17CUA82N*10
—	—	1/3	1/2	0	—	0.25–1	A	30	30A/600V		17CUA82B*11	17CUA82W*11	17CUA82N*11
1/2	3/4	—	—	0	—	0.75–3.4	A	30	30A/250V		17CUB82B*10	17CUB82W*10	17CUB82N*10
—	—	1 ^{1/2}	2	0	—	0.75–3.4	A	30	30A/600V		17CUB82B*11	17CUB82W*11	17CUB82N*11
2	2	—	—	0	—	3–12	A1	30	30A/250V		17CUC82B*10	17CUC82W*10	17CUC82N*10
—	—	5	5	0	—	3–12	A1	30	30A/600V		17CUC82B*11	17CUC82W*11	17CUC82N*11
3	3	—	—	0	—	5.5–22	A1	30	30A/250V		17CUD82B*10	17CUD82W*10	17CUD82N*10
—	—	10	10	0	—	5.5–22	A1	30	30A/600V		17CUD82B*11	17CUD82W*11	17CUD82N*11
1/6	1/6	—	—	1	—	0.25–1	A	30	30A/250V		17DUA82B*10	17DUA82W*10	17DUA82N*10
—	—	1/3	1/2	1	—	0.25–1	A	30	30A/600V		17DUA82B*11	17DUA82W*11	17DUA82N*11
1/2	3/4	—	—	1	—	0.75–3.4	A	30	30A/250V		17DUB82B*10	17DUB82W*10	17DUB82N*10
—	—	1 ^{1/2}	2	1	—	0.75–3.4	A	30	30A/600V		17DUB82B*11	17DUB82W*11	17DUB82N*11
2	2	—	—	1	—	3–12	A1	30	30A/250V		17DUC82B*10	17DUC82W*10	17DUC82N*10
—	—	5	5	1	—	3–12	A1	30	30A/600V		17DUC82B*11	17DUC82W*11	17DUC82N*11
3	3	—	—	1	—	5.5–22	A1	30	30A/250V		17DUD82B*10	17DUD82W*10	17DUD82N*10
—	—	10	10	1	—	5.5–22	A1	30	30A/600V		17DUD82B*11	17DUD82W*11	17DUD82N*11
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	60A/250V		17DUE82B*12	17DUE82W*12	17DUE82N*12
—	—	15	15	—	13/4	10–40	A1	60	60A/600V		17EUE82B*12	17EUE82W*12	17EUE82N*12
10	10	—	—	—	13/4	10–40	A1	60	60A/250V		17EUE82B*13	17EUE82W*13	17EUE82N*13
10	15	—	—	2	—	13–52	B	60	60A/250V		17FUF82B*12	17FUF82W*12	17FUF82N*12
—	—	25	25	2	—	13–52	B	60	60A/600V		17FUF82B*13	17FUF82W*13	17FUF82N*13
—	—	—	30	—	2 ^{1/2}	13–52	B	60	60A/600V		17GUF82B*13	17GUF82W*13	17GUF82N*13
—	—	30	—	—	2 ^{1/2}	13–52	B	100	100A/600V		17GUF82B*15	17GUF82W*15	17GUF82N*15
15	20	—	—	—	2 ^{1/2}	25–100	B	100	100A/250V		17GUG82B*14	17GUG82W*14	17GUG82N*14
20	25	—	—	3	—	25–100	B	100	100A/250V		17HUG82B*14	17HUG82W*14	17HUG82N*14
—	—	50	50	3	—	25–100	B	100	100A/600V		17HUG82B*15	17HUG82W*15	17HUG82N*15
25	30	—	—	3	—	25–100	B	200	200A/250V		17HUG82B*16	17HUG82W*16	17HUG82N*16

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

① Dual voltage coils not available in modified starters.

② 316 Stainless Steel option available.

Combination Heavy Duty Starters

MCP Type with Solid State Overload, Class 18

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

For other voltages and frequencies, see Factory Modifications.

Standard Width Enclosure, 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 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)
200 Volts	230 Volts	460 Volts	575 Volts				Amp Range	Frame Size	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	1/2	1	1	0	—	3	0.75–3.4	A	18CUB92B*	18CUB92W*	18CUB92F*	18CUB92H*	18CUB92N*
2	2	5	5	0	—	10	3–12	A1	18CUC92B*	18CUC92W*	18CUC92F*	18CUC92H*	18CUC92N*
3	3	—	—	0	—	25	5.5–22	A1	18CUD92B*	18CUD92W*	18CUD92F*	18CUD92H*	18CUD92N*
1/2	1/2	1	1	1	—	3	0.75–3.4	A	18DUB92B*	18DUB92W*	18DUB92F*	18DUB92H*	18DUB92N*
2	2	5	5	1	—	10	3–12	A1	18DUC92B*	18DUC92W*	18DUC92F*	18DUC92H*	18DUC92N*
3	3	7 1/2	10	1	—	25	5.5–22	A1	18DUD92B*	18DUD92W*	18DUD92F*	18DUD92H*	18DUD92N*
7 1/2	7 1/2	10	—	1	—	30	10–40	A1	18DUE92B*	18DUE92W*	18DUE92F*	18DUE92H*	18DUE92N*
—	—	15	15	—	1 3/4	40	10–40	A1	18EUE92B*	18EUE92W*	18EUE92F*	18EUE92H*	18EUE92N*
10	15	25	25	2	—	50	13–52	B	18FUF92B*	18FUF92W*	18FUF92F*	18FUF92H*	18FUF92N*
15	20	30	30	—	2 1/2	100	25–100	B	18GUG92B*	18GUG92W*	18GUG92F*	18GUG92H*	18GUG92N*
25	30	50	50	3	—	100	25–100	B	18HUG92B*	18HUG92W*	18HUG92F*	18HUG92H*	18HUG92N*
30	40	75	75	—	3 1/2	125	50–200	B	18IUH92B*	18IUH92W*	18IUH92F*	18IUH92H*	18IUH92N*
40	50	100	100	4	—	150	50–200	B	18JUH92B*	18JUH92W*	18JUH92F*	18JUH92H*	18JUH92N*
50	75	150	200	5	—	250	55–250	—	18LPT92B*	18LPT92E*	—	18LPT92H*	18LPT92N*
75	100	200	—	5	—	400	55–250	—	18LPU92B*	18LPU92E*	—	18LPU92H*	18LPU92N*
100	125	250	300	6	—	400	160–630	—	18MPW92B*	18MPW92E*	—	—	18MPW92N*
150	200	400	400	6	—	600	160–630	—	18MPX92B*	18MPX92E*	—	—	18MPX92N*
—	250	500	500	7 ^④	—	800	400–1220	A1+CT	18NUV92B*	—	—	—	18NUV92N*
—	300	600	600	7 ^④	—	1000	400–1220	A1+CT	18NUY92B*	—	—	—	18NUY92N*
—	400	800	800	8 ^⑤	—	1200	400–1220	A1+CT	18PUW92B*	—	—	—	18PUW92N*
—	450	900	900	8 ^⑤	—	1600	400–1220	A1+CT	18PUX92B*	—	—	—	18PUX92N*

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

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

② Enclosure is NEMA Type 4 (painted steel).

③ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

④ Only available

F coil 100–250V AC 50/60Hz, or DC

⑤ 316 Stainless Steel option available.

Combination Heavy Duty Starters

MCP Type with Solid State Overload, Class 18

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.	60Hz Voltage		Letter
		24 Separate Control	J	
		120 Separate Control	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.			

Extra Wide Enclosure, 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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number
1/2	1/2	1	1	0	—	3	0.75–3.4	A	18CUB82B*	18CUB82W*	18CUB82N*
2	2	5	5	0	—	10	3–12	A1	18CUC82B*	18CUC82W*	18CUC82N*
3	3	—	—	0	—	25	5.5–22	A1	18CUD82B*	18CUD82W*	18CUD82N*
1/2	1/2	1	1	1	—	3	0.75–3.4	A	18DUB82B*	18DUB82W*	18DUB82N*
2	2	5	5	1	—	10	3–12	A1	18DUC82B*	18DUC82W*	18DUC82N*
3	3	7 ^{1/2}	10	1	—	25	5.5–22	A1	18DUD82B*	18DUD82W*	18DUD82N*
7 ^{1/2}	7 ^{1/2}	10	—	1	—	30	10–40	A1	18DUE82B*	18DUE82W*	18DUE82N*
—	—	15	15	—	1 ^{3/4}	40	10–40	A1	18EUE82B*	18EUE82W*	18EUE82N*
10	15	25	25	2	—	50	13–52	B	18FUF82B*	18FUF82W*	18FUF82N*
15	20	30	30	—	2 ^{1/2}	100	25–100	B	18GUG82B*	18GUG82W*	18GUG82N*
25	30	50	50	3	—	100	25–100	B	18HUG82B*	18HUG82W*	18HUG82N*

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

① Dual voltage coils not available in modified starters.

② 316 Stainless Steel option available.

Reversing Heavy Duty Starters

Solid State Overload, Class 22

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.		60Hz Voltage	Letter
			24 Separate Control	J
			120 Separate Control	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.			

Standard Width 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	Open Type Standard Auxiliary Contacts ^⑤	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)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number									Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	00	—	0.25–1	A	22BUA32A*	22BUA32B*	Use Size 0	Use Size 0	Use Size 0	Use Size 0
1/2	3/4	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
1/6	1/6	1/3	1/2	0	—	0.25–1	A	22CUA32A*	22CUA32B*	22CUA32W*	22CUA32F*	22CUA32H*	22CUA320*
1/2	3/4	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*
1/6	1/6	1/3	1/2	1	—	0.25–1	A	22DUA32A*	22DUA32B*	22DUA32W*	22DUA32F*	22DUA32H*	22DUA320*
1/2	3/4	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 3/4	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 1/2	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 1/2	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*	—	—	22LPU320*
150	200	400	400	6	—	160–630	—	22MPX32A*	22MPX32B*	22MPX32E*	—	—	22MPX320*
—	300	600	600	7 ^②	—	400–1220	A1+CT	22NUN32A*	22NUN32B*	—	—	—	22NUN320*
—	450	900	900	8 ^②	—	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 sizes 5–8.

② Enclosure is rated only NEMA 4 (painted steel).

③ Only available

F coil 100–250V AC 50/60Hz, or DC

H coil 150–500V AC 50/60Hz, or DC

④ Only available

F coil 100–250V AC 50/60Hz, or DC

⑤ Auxiliary contacts

22B–22E 4th pole built-in

22F–22J 2 NO & 2 NC

Combination Reversing Heavy Duty Starters

Non-Fusible, 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.	60Hz Voltage	Letter	
		24 Separate Control	J	
		120 Separate Control	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.			

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

Max HP						Overload		Disc. Amp Range	Enclosure			
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size		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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	30	25CUA92B*	25CUA92W*	25CUA92F*	25CUA92N*
1/2	3/4	1 ^{1/2}	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*
1/6	1/6	1/3	1/2	1	—	0.25–1	A	30	25DUA92B*	25DUA92W*	25DUA92F*	25DUA92N*
1/2	3/4	1 ^{1/2}	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*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	25DUE92B*	25DUE92W*	25DUE92F*	25DUE92N*
10	10	15	15	—	1 ^{3/4}	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	—	2 ^{1/2}	25–100	B	100	25GUG92B*	25GUG92W*	25GUG92F*	25GUG92N*
25	30	50	50	3	—	25–100	B	100	25HUG92B*	25HUG92W*	25HUG92F*	25HUG92N*
30	40	75	75	—	3 ^{1/2}	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*	—	25LPU92N*
150	200	400	400	6	—	160–630	—	800	25MPX92B*	25MPX92E*	—	25MPX92N*
—	300	600	600	7 ^⑥	—	400–1220	A1+CT	1200	25NUN92B*	—	—	25NUN92N*
—	450	900	900	8 ^⑦	—	400–1220	A1+CT	1600	25PUN92B*	—	—	25PUN92N*

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

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

② For 60A disconnect, order fusible cat. no.

③ For 25HP and 200A disconnect, order fusible cat. no.

④ For 30HP and 200A disconnect, order fusible cat. no.

⑤ For 600A disconnect, order fusible cat. no.

⑥ Enclosure is NEMA Type 4 (painted steel).

⑦ F coil 100–250V AC 50/60Hz, or DC,
H coil 150–500V AC 50/60Hz, or DC

⑧ Only available

F coil 100–250V AC 50/60Hz, or DC

Combination Reversing Heavy Duty Starters

MCP Type, Class 26

Selection



Ordering Information

- Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.

Coil Table

60Hz Voltage	Letter
24 Separate Control	J
120 Separate Control	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.

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 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)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	1/2	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*
1/2	1/2	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	7 ^{1/2}	10	1	—	25	5.5–22	A1	26DUD92B*	26DUD92W*	26DUD92F*	26DUD92H*	26DUD92N*
7 ^{1/2}	7 ^{1/2}	10	—	1	—	30	10–40	A1	26DUE92B*	26DUE92W*	26DUE92F*	26DUE92H*	26DUE92N*
—	—	15	15	—	1 ^{3/4}	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	—	2 ^{1/2}	100	25–100	B	26GUG92B*	26GUG92W*	26GUG92F*	26GUG92H*	26GUG92N*
25	30	50	50	3	—	100	25–100	B	26HUG92B*	26HUG92W*	26HUG92F*	26HUG92H*	26HUG92N*
30	40	75	75	—	3 ^{1/2}	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*	—	—	26LPT92N*
75	100	200	—	5	—	400	55–250	—	26LPU92B*	26LPU92E*	—	—	26LPU92N*
100	125	250	300	6	—	400	160–630	—	26MPW92B*	26MPW92E*	—	—	26MPW92N*
150	200	400	400	6	—	600	160–630	—	26MPX92B*	26MPX92E*	—	—	26MPX92N*
—	250	500	500	7 ^③	—	800	400–1220	A1+CT	26NUV92B*	—	—	—	26NUV92N*
—	300	600	600	7 ^③	—	1000	400–1220	A1+CT	26NUY92B*	—	—	—	26NUY92N*
—	400	800	800	8 ^④	—	1200	400–1220	A1+CT	26PUW92B*	—	—	—	26PUW92N*
—	450	900	900	8 ^④	—	1600	400–1220	A1+CT	26PUZ92B*	—	—	—	26PUZ92N*

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

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

② Enclosure is NEMA Type 4 (painted steel).

③ F coil 100–250V AC 50/60Hz, or DC, H coil 150–500V AC 50/60Hz, or DC

④ Only available

F coil 100–250V AC 50/60Hz, or DC

Two Speed Heavy Duty Starters

Constant or Variable Torque with Solid State Overload, Class 30

Selection

2S2W Starter (ESP200 Overload)	Ordering Information	Coil Table		Low Speed FLA Table		
	- Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. - Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.②	60Hz Voltage	Letter	Size	FLA	†
		24 Separate Control	J	0,1	0.25–1	A
		120 Separate Control	F	0,1	0.75–3.4	B
		110–120/220–240	A	0,1	3–12	C
	200–208	D	0,1	5.5–22	D	
	220–240	G	0,1 ^{3/4}	10–40	E	
	277	L	2,3	13–52	F	
	220–240/440–480	C	2,3	25–100	G	
	440–480	H	2 ^{1/2} ,4	50–200	H	
	575–600	E				
		For other voltages and frequencies, see Factory Modifications.				

One Winding Consequent Pole, 3-Phase (Constant or Variable Torque)

Max HP				NEMA Size	Half Size	Overload		Enclosure				
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size	Open Type Standard Auxiliary Contacts ^③	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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	1 ^{1/2}	0	—	0.75–3.4	A	30CUB†32A2V*	30CUB†32B2V*	30CUB†32W2V*	30CUB†32F2V*	30CUB†32O2V*
2	2	5	5	0	—	3–12	A1	30CUC†32A2V*	30CUC†32B2V*	30CUC†32W2V*	30CUC†32F2V*	30CUC†32O2V*
3	3	—	—	0	—	5.5–22	A1	30CUD†32A2V*	30CUD†32B2V*	30CUD†32W2V*	30CUD†32F2V*	30CUD†32O2V*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	0.75–3.4	A	30DUB†32A2V*	30DUB†32B2V*	30DUB†32W2V*	30DUB†32F2V*	30DUB†32O2V*
2	2	5	5	1	—	3–12	A1	30DUC†32A2V*	30DUC†32B2V*	30DUC†32W2V*	30DUC†32F2V*	30DUC†32O2V*
3	3	10	10	1	—	5.5–22	A1	30DUD†32A2V*	30DUD†32B2V*	30DUD†32W2V*	30DUD†32F2V*	30DUD†32O2V*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	30DUE†32A2V*	30DUE†32B2V*	30DUE†32W2V*	30DUE†32F2V*	30DUE†32O2V*
10	10	15	15	—	1 ^{3/4}	10–40	A1	30EUE†32A2V*	30EUE†32B2V*	30EUE†32W2V*	30EUE†32F2V*	30EUE†32O2V*
10	15	25	25	2	—	13–52	B	30FUF†32A2V*	30FUF†32B2V*	30FUF†32W2V*	30FUF†32F2V*	30FUF†32O2V*
15	20	30	30	—	2 ^{1/2}	25–100	B	30GUG†32A2V*	30GUG†32B2V*	30GUG†32W2V*	30GUG†32F2V*	30GUG†32O2V*
25	30	50	50	3	—	25–100	B	30HUG†32A2V*	30HUG†32B2V*	30HUG†32W2V*	30HUG†32F2V*	30HUG†32O2V*
30	40	75	75	—	3 ^{1/2}	50–200	B	30IUH†32A2V*	30IUH†32B2V*	30IUH†32W2V*	30IUH†32F2V*	30IUH†32O2V*
40	50	100	100	4	—	50–200	B	30JUH†32A2V*	30JUH†32B2V*	30JUH†32W2V*	30JUH†32F2V*	30JUH†32O2V*

Two Separate Windings, 3-Phase (Constant or Variable Torque)

Max HP				NEMA Size	Half Size	Overload		Enclosure				
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size	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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number					Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30CUB†32A1V*	30CUB†32B1V*	30CUB†32W1V*	30CUB†32F1V*	30CUB†32O1V*
2	2	5	5	0	—	3–12	A1	30CUC†32A1V*	30CUC†32B1V*	30CUC†32W1V*	30CUC†32F1V*	30CUC†32O1V*
3	3	—	—	0	—	5.5–22	A1	30CUD†32A1V*	30CUD†32B1V*	30CUD†32W1V*	30CUD†32F1V*	30CUD†32O1V*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	0.75–3.4	A	30DUB†32A1V*	30DUB†32B1V*	30DUB†32W1V*	30DUB†32F1V*	30DUB†32O1V*
2	2	5	5	1	—	3–12	A1	30DUC†32A1V*	30DUC†32B1V*	30DUC†32W1V*	30DUC†32F1V*	30DUC†32O1V*
3	3	10	10	1	—	5.5–22	A1	30DUD†32A1V*	30DUD†32B1V*	30DUD†32W1V*	30DUD†32F1V*	30DUD†32O1V*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	30DUE†32A1V*	30DUE†32B1V*	30DUE†32W1V*	30DUE†32F1V*	30DUE†32O1V*
10	10	15	15	—	1 ^{3/4}	10–40	A1	30EUE†32A1V*	30EUE†32B1V*	30EUE†32W1V*	30EUE†32F1V*	30EUE†32O1V*
10	15	25	25	2	—	13–52	B	30FUF†32A1V*	30FUF†32B1V*	30FUF†32W1V*	30FUF†32F1V*	30FUF†32O1V*
15	20	30	30	—	2 ^{1/2}	25–100	B	30GUG†32A1V*	30GUG†32B1V*	30GUG†32W1V*	30GUG†32F1V*	30GUG†32O1V*
25	30	50	50	3	—	25–100	B	30HUG†32A1V*	30HUG†32B1V*	30HUG†32W1V*	30HUG†32F1V*	30HUG†32O1V*
30	40	75	75	—	3 ^{1/2}	50–200	B	30IUH†32A1V*	30IUH†32B1V*	30IUH†32W1V*	30IUH†32F1V*	30IUH†32O1V*
40	50	100	100	4	—	50–200	B	30JUH†32A1V*	30JUH†32B1V*	30JUH†32W1V*	30JUH†32F1V*	30JUH†32O1V*

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

① If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

② Auxiliary contacts
30C-30E 4th pole built-in
30F-30J 2 NO & 2 NC

Two Speed Heavy Duty Starters

Constant HP with Solid State Overload, Class 30

Selection

 2S2W Starter (ESP200 Overload)	Ordering Information		Coil Table		High/Low Speed FLA Table ^②		
			60Hz Voltage	Letter	Size	FLA	†
	► Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ► Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.^②		24 Separate Control 120 Separate Control 110–120/220–240 200–208 220–240 277 220–240/440–480 440–480 575–600	J F A D G L C H E	0,1 0,1 0,1 0,1 0,1 ^{3/4} 2,3 2,3 2 ^{1/2} ,4	0.25–1 0.75–3.4 3–12 5.5–22 10–40 13–52 25–100 50–200	A B C D E F G H

For other voltages and frequencies, see Factory Modifications.

* First (†) for high speed, second (†) for low speed. Use motor nameplate to select FLA. If motor FLA are unknown, select overload on the bases that the low speed FLA will be no greater than 50 % of high speed FLA.

One Winding Consequent Pole, 3-Phase (Constant Horsepower)

Max HP				NEMA Size	Half Size	Enclosure				
200 Volts	230 Volts	460 Volts	575 Volts			Open Type Standard Auxiliary Contacts ^③	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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number			Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	30CU††32A2H*	30CU††32B2H*	30CU††32W2H*	30CU††32F2H*	30CU††32O2H*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	30DU††32A2H*	30DU††32B2H*	30DU††32W2H*	30DU††32F2H*	30DU††32O2H*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	30EU††32A2H*	30EU††32B2H*	30EU††32W2H*	30EU††32F2H*	30EU††32O2H*
7 ^{1/2}	10	20	20	2	—	30FU††32A2H*	30FU††32B2H*	30FU††32W2H*	30FU††32F2H*	30FU††32O2H*
10	15	25	25	—	2 ^{1/2}	30GU††32A2H*	30GU††32B2H*	30GU††32W2H*	30GU††32F2H*	30GU††32O2H*
20	25	40	40	3	—	30HU††32A2H*	30HU††32B2H*	30HU††32W2H*	30HU††32F2H*	30HU††32O2H*
25	30	50	50	—	3 ^{1/2}	30IU††32A2H*	30IU††32B2H*	30IU††32W2H*	30IU††32F2H*	30IU††32O2H*
30	40	75	75	4	—	30JU††32A2H*	30JU††32B2H*	30JU††32W2H*	30JU††32F2H*	30JU††32O2H*

Two Winding Consequent Pole, 3-Phase (Constant Horsepower)

Max HP				NEMA Size	Half Size	Enclosure				
200 Volts	230 Volts	460 Volts	575 Volts			Open Type Standard Auxiliary Contacts ^③	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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number			Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	30CU††32A1H*	30CU††32B1H*	30CU††32W1H*	30CU††32F1H*	30CU††32O1H*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	30DU††32A1H*	30DU††32B1H*	30DU††32W1H*	30DU††32F1H*	30DU††32O1H*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	30EU††32A1H*	30EU††32B1H*	30EU††32W1H*	30EU††32F1H*	30EU††32O1H*
7 ^{1/2}	10	20	20	2	—	30FU††32A1H*	30FU††32B1H*	30FU††32W1H*	30FU††32F1H*	30FU††32O1H*
10	15	25	25	—	2 ^{1/2}	30GU††32A1H*	30GU††32B1H*	30GU††32W1H*	30GU††32F1H*	30GU††32O1H*
20	25	40	40	3	—	30HU††32A1H*	30HU††32B1H*	30HU††32W1H*	30HU††32F1H*	30HU††32O1H*
25	30	50	50	—	3 ^{1/2}	30IU††32A1H*	30IU††32B1H*	30IU††32W1H*	30IU††32F1H*	30IU††32O1H*
30	40	75	75	4	—	30JU††32A1H*	30JU††32B1H*	30JU††32W1H*	30JU††32F1H*	30JU††32O1H*

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

① First (†) for high speed, second (†) for low speed. Use motor nameplate information to select FLA. If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

② Auxiliary contacts
30C-30E 4th pole built-in
30F-30J 2 NO & 2 NC

Combination Two Speed Heavy Duty Starters

Non-Fusible, Constant or Variable Torque with Solid State Overload, Class 32

Selection

	Ordering Information	Coil Table		Low Speed FLA Table		
		60Hz Voltage	Letter	Size	FLA	†
	► Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order.	24 Separate Control	J	0,1	0.25–1	A
		120 Separate Control	F	0,1	0.75–3.4	B
	► Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.③	110–120/220–240①	A	0,1	3–12	C
200–208		D	0,1	5.5–22	D	
220–240		G	0,1 ^{3/4}	10–40	E	
277		L	2,3	13–52	F	
220–240/440–480①		C	2,3	25–100	G	
	440–480	H	2 ^{1/2} ,4	50–200	H	
	575–600	E				
		For other voltages and frequencies, see Factory Modifications.				

One Winding Consequent Pole, 3-Phase (Constant or Variable Torque)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30	32CUB†92B2V2*	32CUB†92W2V2*	32CUB†92F2V2*	32CUB†92N2V2*
2	2	5	5	0	—	3–12	A1	30	32CUC†92B2V2*	32CUC†92W2V2*	32CUC†92F2V2*	32CUC†92N2V2*
3	3	—	—	0	—	5.5–22	A1	30	32CUD†92B2V2*	32CUD†92W2V2*	32CUD†92F2V2*	32CUD†92N2V2*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	0.75–3.4	A	30	32DUB†92B2V2*	32DUB†92W2V2*	32DUB†92F2V2*	32DUB†92N2V2*
2	2	5	5	1	—	3–12	A1	30	32DUC†92B2V2*	32DUC†92W2V2*	32DUC†92F2V2*	32DUC†92N2V2*
3	3	10	10	1	—	5.5–22	A1	30	32DUD†92B2V2*	32DUD†92W2V2*	32DUD†92F2V2*	32DUD†92N2V2*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	32DUE†92B2V2*	32DUE†92W2V2*	32DUE†92F2V2*	32DUE†92N2V2*
10	10	15	15	—	1 ^{3/4}	10–40	A1	60	32EUE†92B2V2*	32EUE†92W2V2*	32EUE†92F2V2*	32EUE†92N2V2*
10	15	25	25	2	—	13–52	B	60	32FUF†92B2V2*	32FUF†92W2V2*	32FUF†92F2V2*	32FUF†92N2V2*
15	20	30	30	—	2 ^{1/2}	25–100	B	100	32GUG†92B2V2*	32GUG†92W2V2*	32GUG†92F2V2*	32GUG†92N2V2*
25	30	50	50	3	—	25–100	B	100	32HUG†92B2V2*	32HUG†92W2V2*	32HUG†92F2V2*	32HUG†92N2V2*
30	40	75	75	—	3 ^{1/2}	50–200	B	200	32IUH†92B2V2*	32IUH†92W2V2*	32IUH†92F2V2*	32IUH†92N2V2*
40	50	100	100	4	—	50–200	B	200	32JUH†92B2V2*	32JUH†92W2V2*	32JUH†92F2V2*	32JUH†92N2V2*

Two Separate Windings, 3-Phase (Constant or Variable Torque)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30	32CUB†92B1V2*	32CUB†92W1V2*	32CUB†92F1V2*	32CUB†92N1V2*
2	2	5	5	0	—	3–12	A1	30	32CUC†92B1V2*	32CUC†92W1V2*	32CUC†92F1V2*	32CUC†92N1V2*
3	3	—	—	0	—	5.5–22	A1	30	32CUD†92B1V2*	32CUD†92W1V2*	32CUD†92F1V2*	32CUD†92N1V2*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	0.75–3.4	A	30	32DUB†92B1V2*	32DUB†92W1V2*	32DUB†92F1V2*	32DUB†92N1V2*
2	2	5	5	1	—	3–12	A1	30	32DUC†92B1V2*	32DUC†92W1V2*	32DUC†92F1V2*	32DUC†92N1V2*
3	3	10	10	1	—	5.5–22	A1	30	32DUD†92B1V2*	32DUD†92W1V2*	32DUD†92F1V2*	32DUD†92N1V2*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	60	32DUE†92B1V2*	32DUE†92W1V2*	32DUE†92F1V2*	32DUE†92N1V2*
10	10	15	15	—	1 ^{3/4}	10–40	A1	60	32EUE†92B1V2*	32EUE†92W1V2*	32EUE†92F1V2*	32EUE†92N1V2*
10	15	25	25	2	—	13–52	B	60	32FUF†92B1V2*	32FUF†92W1V2*	32FUF†92F1V2*	32FUF†92N1V2*
15	20	30	30	—	2 ^{1/2}	25–100	B	100	32GUG†92B1V2*	32GUG†92W1V2*	32GUG†92F1V2*	32GUG†92N1V2*
25	30	50	50	3	—	25–100	B	100	32HUG†92B1V2*	32HUG†92W1V2*	32HUG†92F1V2*	32HUG†92N1V2*
30	40	75	75	—	3 ^{1/2}	50–200	B	200	32IUH†92B1V2*	32IUH†92W1V2*	32IUH†92F1V2*	32IUH†92N1V2*
40	50	100	100	4	—	50–200	B	200	32JUH†92B1V2*	32JUH†92W1V2*	32JUH†92F1V2*	32JUH†92N1V2*

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

① Dual voltage coils not available in modified starters.

② If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

Combination Two Speed Heavy Duty Starters

Non-Fusible, Constant Horsepower with Solid State Overload, Class 32

Selection

	Ordering Information	Coil Table		High/Low Speed FLA Table ^③		
		60Hz Voltage	Letter	Size	FLA	†
	► Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ► Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.^③	24 Separate Control	J	0,1	0.25–1	A
		120 Separate Control	F	0,1	0.75–3.4	B
110–120/220–240 ^①		A	0,1	3–12	C	
200–208		D	0,1	5.5–22	D	
220–240		G	0,1 ^{3/4}	10–40	E	
277		L	2,3	13–52	F	
220–240/440–480 ^①		C	2,3	25–100	G	
440–480		H	2 ^{1/2} ,4	50–200	H	
575–600		E				
For other voltages and frequencies, see Factory Modifications.		* First (†) for high speed, second (†) for low speed. Use motor nameplate to select FLA. If motor FLA are unknown, select overload on the bases that the low speed FLA will be no greater than 50 % of high speed FLA.				

One Winding Consequent Pole, 3-Phase (Constant Horsepower)

Max HP						Overload		Disc. Amp Range	Enclosure			
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size		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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	—	—	30	32CU††92B2H2*	32CU††92W2H2*	32CU††92F2H2*	32CU††92N2H2*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	—	—	30	32DU††92B2H2*	32DU††92W2H2*	32DU††92F2H2*	32DU††92N2H2*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	—	—	60	32EU††92B2H2*	32EU††92W2H2*	32EU††92F2H2*	32EU††92N2H2*
7 ^{1/2}	10	20	20	2	—	—	—	60	32FU††92B2H2*	32FU††92W2H2*	32FU††92F2H2*	32FU††92N2H2*
10	15	25	25	—	2 ^{1/2}	—	—	100	32GU††92B2H2*	32GU††92W2H2*	32GU††92F2H2*	32GU††92N2H2*
20	25	40	40	3	—	—	—	100	32HU††92B2H2*	32HU††92W2H2*	32HU††92F2H2*	32HU††92N2H2*
25	30	50	50	—	3 ^{1/2}	—	—	200	32IU††92B2H2*	32IU††92W2H2*	32IU††92F2H2*	32IU††92N2H2*
30	40	75	75	4	—	—	—	200	32JU††92B2H2*	32JU††92W2H2*	32JU††92F2H2*	32JU††92N2H2*

Two Separate Windings, 3-Phase (Constant Horsepower)

Max HP						Overload		Disc. Amp Range	Enclosure			
200 Volts	230 Volts	460 Volts	575 Volts	NEMA Size	Half Size	Amp Range	Frame Size		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 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	—	—	30	32CU††92B1H2*	32CU††92W1H2*	32CU††92F1H2*	32CU††92N1H2*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	—	—	30	32DU††92B1H2*	32DU††92W1H2*	32DU††92F1H2*	32DU††92N1H2*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	—	—	60	32EU††92B1H2*	32EU††92W1H2*	32EU††92F1H2*	32EU††92N1H2*
7 ^{1/2}	10	20	20	2	—	—	—	60	32FU††92B1H2*	32FU††92W1H2*	32FU††92F1H2*	32FU††92N1H2*
10	15	25	25	—	2 ^{1/2}	—	—	100	32GU††92B1H2*	32GU††92W1H2*	32GU††92F1H2*	32GU††92N1H2*
20	25	40	40	3	—	—	—	100	32HU††92B1H2*	32HU††92W1H2*	32HU††92F1H2*	32HU††92N1H2*
25	30	50	50	—	3 ^{1/2}	—	—	200	32IU††92B1H2*	32IU††92W1H2*	32IU††92F1H2*	32IU††92N1H2*
30	40	75	75	4	—	—	—	200	32JU††92B1H2*	32JU††92W1H2*	32JU††92F1H2*	32JU††92N1H2*

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

① Dual voltage coils not available in modified starters.

② First † for high speed, second † for low speed. Use motor nameplate information to select FLA. If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

Combination Two Speed Heavy Duty Starters

MCP Type, Constant or Variable Torque with Solid State Overload, Class 32

Selection

	Ordering Information	Coil Table		Low Speed FLA Table		
		60Hz Voltage	Letter	Size	FLA	†
	▶ Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ▶ Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.③	24 Separate Control	J	0,1	0.25–1	A
		120 Separate Control	F	0,1	0.75–3.4	B
		110–120/220–240①	A	0,1	3–12	C
200–208		D	0,1	5.5–22	D	
220–240		G	0,1 ^{3/4}	10–40	E	
277		L	2,3	13–52	F	
220–240/440–480①		C	2,3	25–100	G	
440–480		H	2 ^{1/2} ,4	50–200	H	
575–600	E					
	For other voltages and frequencies, see Factory Modifications.					

One Winding Consequent Pole, 3-Phase (Constant or Variable Torque)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
200 Volts	230 Volts	460 Volts	575 Volts				Amp Range	Frame Size	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	2	0	—	3	0.75–3.4	A	32CUB†92B2V*	32CUB†92W2V*	32CUB†92F2V*	32CUB†92N2V*
2	2	5	5	0	—	10	3–12	A1	32CUC†92B2V*	32CUC†92W2V*	32CUC†92F2V*	32CUC†92N2V*
3	3	—	—	0	—	25	5.5–22	A1	32CUD†92B2V*	32CUD†92W2V*	32CUD†92F2V*	32CUD†92N2V*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	3	0.75–3.4	A	32DUB†92B2V*	32DUB†92W2V*	32DUB†92F2V*	32DUB†92N2V*
2	2	5	5	1	—	10	3–12	A1	32DUC†92B2V*	32DUC†92W2V*	32DUC†92F2V*	32DUC†92N2V*
3	3	10	10	1	—	25	5.5–22	A1	32DUD†92B2V*	32DUD†92W2V*	32DUD†92F2V*	32DUD†92N2V*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	30	10–40	A1	32DUE†92B2V*	32DUE†92W2V*	32DUE†92F2V*	32DUE†92N2V*
—	—	15	15	—	1 ^{3/4}	40	10–40	A1	32EUE†92B2V*	32EUE†92W2V*	32EUE†92F2V*	32EUE†92N2V*
10	15	25	25	2	—	50	13–52	B	32FUF†92B2V*	32FUF†92W2V*	32FUF†92F2V*	32FUF†92N2V*
15	20	30	30	—	2 ^{1/2}	100	25–100	B	32GUG†92B2V*	32GUG†92W2V*	32GUG†92F2V*	32GUG†92N2V*
25	30	50	50	3	—	100	25–100	B	32HUG†92B2V*	32HUG†92W2V*	32HUG†92F2V*	32HUG†92N2V*
30	40	75	75	—	3 ^{1/2}	125	50–200	B	32IUH†92B2V*	32IUH†92W2V*	32IUH†92F2V*	32IUH†92N2V*
40	50	100	100	4	—	150	50–200	B	32JUH†92B2V*	32JUH†92W2V*	32JUH†92F2V*	32JUH†92N2V*

Two Separate Windings, 3-Phase (Constant or Variable Torque)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
200 Volts	230 Volts	460 Volts	575 Volts				Amp Range	Frame Size	Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/2	3/4	1 ^{1/2}	2	0	—	3	0.75–3.4	A	32CUB†92B1V*	32CUB†92W1V*	32CUB†92F1V*	32CUB†92N1V*
2	2	5	5	0	—	10	3–12	A1	32CUC†92B1V*	32CUC†92W1V*	32CUC†92F1V*	32CUC†92N1V*
3	3	—	—	0	—	25	5.5–22	A1	32CUD†92B1V*	32CUD†92W1V*	32CUD†92F1V*	32CUD†92N1V*
1/2	3/4	1 ^{1/2}	1 ^{1/2}	1	—	3	0.75–3.4	A	32DUB†92B1V*	32DUB†92W1V*	32DUB†92F1V*	32DUB†92N1V*
2	2	5	5	1	—	10	3–12	A1	32DUC†92B1V*	32DUC†92W1V*	32DUC†92F1V*	32DUC†92N1V*
3	3	10	10	1	—	25	5.5–22	A1	32DUD†92B1V*	32DUD†92W1V*	32DUD†92F1V*	32DUD†92N1V*
7 ^{1/2}	7 ^{1/2}	—	—	1	—	30	10–40	A1	32DUE†92B1V*	32DUE†92W1V*	32DUE†92F1V*	32DUE†92N1V*
—	—	15	15	—	1 ^{3/4}	40	10–40	A1	32EUE†92B1V*	32EUE†92W1V*	32EUE†92F1V*	32EUE†92N1V*
10	15	25	25	2	—	50	13–52	B	32FUF†92B1V*	32FUF†92W1V*	32FUF†92F1V*	32FUF†92N1V*
15	20	30	30	—	2 ^{1/2}	100	25–100	B	32GUG†92B1V*	32GUG†92W1V*	32GUG†92F1V*	32GUG†92N1V*
25	30	50	50	3	—	100	25–100	B	32HUG†92B1V*	32HUG†92W1V*	32HUG†92F1V*	32HUG†92N1V*
30	40	75	75	—	3 ^{1/2}	125	50–200	B	32IUH†92B1V*	32IUH†92W1V*	32IUH†92F1V*	32IUH†92N1V*
40	50	100	100	4	—	150	50–200	B	32JUH†92B1V*	32JUH†92W1V*	32JUH†92F1V*	32JUH†92N1V*

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

① Dual voltage coils not available in modified starters.

② If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

Combination Two Speed Heavy Duty Starters

MCP Type, Constant Horsepower with Solid State Overload, Class 32

Selection

	Ordering Information	Coil Table		High/Low Speed FLA Table ^③		
		60Hz Voltage	Letter	Size	FLA	†
	► Replace the (*) with a letter from the coil table. Dual voltage coils are wired on high voltage unless specified on order. ► Replace the (†) with the letter that corresponds to the correct low speed FLA in the FLA table.^③	24 Separate Control	J	0,1	0.25–1	A
		120 Separate Control	F	0,1	0.75–3.4	B
		110–120/220–240 ^①	A	0,1	3–12	C
200–208		D	0,1	5.5–22	D	
220–240		G	0,1 ^{3/4}	10–40	E	
277		L	2,3	13–52	F	
220–240/440–480 ^①		C	2,3	25–100	G	
440–480		H	2 ^{1/2} ,4	50–200	H	
575–600	E	* First (†) for high speed, second (†) for low speed. Use motor nameplate to select FLA. If motor FLA are unknown, select overload on the bases that the low speed FLA will be no greater than 50 % of high speed FLA.				
	For other voltages and frequencies, see Factory Modifications.					

One Winding Consequent Pole, 3-Phase (Constant Horsepower)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	10	—	—	32CU††92B2H*	32CU††92W2H*	32CU††92F2H*	32CU††92N2H*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	25	—	—	32DU††92B2H*	32DU††92W2H*	32DU††92F2H*	32DU††92N2H*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	40	—	—	32EU††92B2H*	32EU††92W2H*	32EU††92F2H*	32EU††92N2H*
7 ^{1/2}	10	20	20	2	—	50	—	—	32FU††92B2H*	32FU††92W2H*	32FU††92F2H*	32FU††92N2H*
10	15	25	25	—	2 ^{1/2}	100	—	—	32GU††92B2H*	32GU††92W2H*	32GU††92F2H*	32GU††92N2H*
20	25	40	40	3	—	100	—	—	32HU††92B2H*	32HU††92W2H*	32HU††92F2H*	32HU††92N2H*
25	30	50	50	—	3 ^{1/2}	125	—	—	32IU††92B2H*	32IU††92W2H*	32IU††92F2H*	32IU††92N2H*
30	40	75	75	4	—	150	—	—	32JU††92B2H*	32JU††92W2H*	32JU††92F2H*	32JU††92N2H*

Two Separate Windings, 3-Phase (Constant Horsepower)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Fiberglass Watertight, Dust-tight, Corrosion Resistant	NEMA 12 NEMA 3/3R Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
2	2	3	3	0	—	10	—	—	32CU††92B1H*	32CU††92W1H*	32CU††92F1H*	32CU††92N1H*
5	5	7 ^{1/2}	7 ^{1/2}	1	—	25	—	—	32DU††92B1H*	32DU††92W1H*	32DU††92F1H*	32DU††92N1H*
7 ^{1/2}	7 ^{1/2}	10	10	—	1 ^{3/4}	40	—	—	32EU††92B1H*	32EU††92W1H*	32EU††92F1H*	32EU††92N1H*
7 ^{1/2}	10	20	20	2	—	50	—	—	32FU††92B1H*	32FU††92W1H*	32FU††92F1H*	32FU††92N1H*
10	15	25	25	—	2 ^{1/2}	100	—	—	32GU††92B1H*	32GU††92W1H*	32GU††92F1H*	32GU††92N1H*
20	25	40	40	3	—	100	—	—	32HU††92B1H*	32HU††92W1H*	32HU††92F1H*	32HU††92N1H*
25	30	50	50	—	3 ^{1/2}	125	—	—	32IU††92B1H*	32IU††92W1H*	32IU††92F1H*	32IU††92N1H*
30	40	75	75	4	—	150	—	—	32JU††92B1H*	32JU††92W1H*	32JU††92F1H*	32JU††92N1H*

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

① Dual voltage coils not available in modified starters.

② First † for high speed, second † for low speed. Use motor nameplate information to select FLA. If motor FLA are unknown, select overload on the basis that low speed FLA will be no greater than 50% of high speed FLA.

Reduced Voltage Heavy Duty Starters

Auto Transformer Solid State Overload, Class 36 & 37

Selection



Coil and Control Voltage

The coil voltage will always match the motor voltage.
As standard, a CPT is supplied and 120V control voltage is utilized.
To change to 120V separate control voltage (CPT not supplied), change the 9th character to "F".
To change to 24VAC separate control voltage (CPT not supplied), change the 9th character to "J".

NEMA 1 General Purpose Enclosures

Motor Voltage	Max HP	NEMA Size	Half Size	Overload		Non-Combination Enclosure Catalogue Number	Combination Non-Fusible Disconnect Catalogue Number	Fuse Clip Size Amps/Volts	Combination Fusible Disconnect Catalogue Number	Circuit Breaker Amps	Combination Circuit Breaker Catalogue Number
				Amp Range	Frame Size						
200	10	—	1 ^{3/4}	10-40	A1	36EUET6BD	37EUET6BDD	60A/250V	37EUET6BDF	50	37EUET6BDP
	10	2	—	13-52	B	36FUFT6BD	37FUFT6BDD	60A/250V	37FUFT6BDF	50	37FUFT6BDP
	15	—	2 ^{1/2}	25-100	B	36GUGT6BD	37GUGT6BDD	100A/250V	37GUGT6BDF	100	37GUGT6BDP
	25	3	—	25-100	B	36HUGT6BD	37HUGT6BDD	100A/250V	37HUGT6BDF	100	37HUGT6BDP
	30	—	3 ^{1/2}	50-200	B	36IUHT6BD	37IUHT6BDD	200A/250V	37IUHT6BDF	125	37IUHT6BDP
	40	4	—	50-200	B	36JUHT6BD	37JUHT6BDD	200A/250V	37JUHT6BDF	150	37JUHT6BDP
	50	5	—	55-250	—					250	37LPST6BDP
	75	5	—	55-250	—	36LPUT6BD	37LPUT6BDD	400A/250V	37LPUT6BDF	400	37LPUT6BDP
230	10	—	1 ^{3/4}	10-40	A1	36EUET2BG	37EUET2BGD	60A/250V	37EUET2BGF	50	37EUET2BGP
	15	2	—	13-52	B	36FUFT2BG	37FUFT2BGD	60A/250V	37FUFT2BGF	50	37FUFT2BGP
	20	—	2 ^{1/2}	25-100	B	36GUGT2BG	37GUGT2BGD	100A/250V	37GUGT2BGF	100	37GUGT2BGP
	30	3	—	25-100	B	36HUGT2BG	37HUGT2BGD	100A/250V	37HUGT2BGF	100	37HUGT2BGP
	40	—	3 ^{1/2}	50-200	B	36IUHT2BG	37IUHT2BGD	200A/250V	37IUHT2BGF	125	37IUHT2BGP
	50	4	—	50-200	B	36JUHT2BG	37JUHT2BGD	200A/250V	37JUHT2BGF	150	37JUHT2BGP
	75	5	—	55-250	—					250	37LPST2BGP
	100	5	—	55-250	—	36LPUT2BG	37LPUT2BGD	400A/250V	37LPUT2BGF	400	37LPUT2BGP
460	200	6	—	160-630	—	36MPXT2BG	37MPXT2BGD	600A/250V	37MPXT2BGF	600	37MPXT2BGP
	15	—	1 ^{3/4}	10-40	A1	36EUET4BH	37EUET4BHD	60A/250V	37EUET4BHF	50	37EUET4BHP
	25	2	—	13-52	B	36FUFT4BH	37FUFT4BHD	60A/250V	37FUFT4BHF	50	37FUFT4BHP
	30	—	2 ^{1/2}	13-52	B	36GUGT4BH	37GUGT4BHD	100A/250V	37GUGT4BHF	100	37GUGT4BHP
	50	3	—	25-100	B	36HUGT4BH	37HUGT4BHD	100A/250V	37HUGT4BHF	100	37HUGT4BHP
	75	—	3 ^{1/2}	50-200	B	36IUHT4BH	37IUHT4BHD	200A/250V	37IUHT4BHF	125	37IUHT4BHP
	100	4	—	50-200	B	36JUHT4BH	37JUHT4BHD	200A/250V	37JUHT4BHF	150	37JUHT4BHP
	150	5	—	55-250	—					250	37LPST4BHP
575	200	5	—	55-250	—	36LPUT4BH	37LPUT4BHD	400A/250V	37LPUT4BHF	400	37LPUT4BHP
	400	6	—	160-630	—	36MPXT4BH	37MPXT4BHD	600A/250V	37MPXT4BHF	600	37MPXT4BHP
	15	—	1 ^{3/4}	10-40	A1	36EUET5BE	37EUET5BED	60A/250V	37EUET5BEF	50	37EUET5BEP
	25	2	—	13-52	B	36FUFT5BE	37FUFT5BED	60A/250V	37FUFT5BEF	50	37FUFT5BEP
	30	—	2 ^{1/2}	13-52	B	36GUGT5BE	37GUGT5BED	100A/250V	37GUGT5BEF	100	37GUGT5BEP
	50	3	—	25-100	B	36HUGT5BE	37HUGT5BED	100A/250V	37HUGT5BEF	100	37HUGT5BEP
	75	—	3 ^{1/2}	50-200	B	36IUHT5BE	37IUHT5BED	200A/250V	37IUHT5BEF	125	37IUHT5BEP
	100	4	—	50-200	B	36JUHT5BE	37JUHT5BED	200A/250V	37JUHT5BEF	150	37JUHT5BEP
	150	5	—	55-250	—					250	37LPST5BEP
	200	5	—	55-250	—	36LPUT5BE	37LPUT5BED	400A/250V	37LPUT5BEF	400	37LPUT5BEP
	400	6	—	160-630	—	36MPXT5BE	37MPXT5BED	600A/250V	37MPXT5BEF	600	37MPXT5BEP

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

Reduced Voltage Heavy Duty Starters

2 Step Part Winding with Solid State Overload, Class 36 & 37

Selection



Coil and Control Voltage

The coil voltage will always match the motor voltage.
As standard, a CPT is supplied and 120V control voltage is utilized.
To change to 120V separate control voltage (CPT not supplied), change the 9th character to "F".
To change to 24VAC separate control voltage (CPT not supplied), change the 9th character to "J".

NEMA 1 General Purpose Enclosures

Motor Voltage	Max HP	NEMA Size	Half Size	Overload		Non-Combination Enclosure Catalogue Number	Combination Non-Fusible Disconnect Catalogue Number	Fuse Clip Size Amps/Volts	Combination Fusible Disconnect Catalogue Number	Circuit Breaker Amps	Combination Circuit Breaker Catalogue Number
				Amp Range	Frame Size						
200	7 ^{1/2}	0	—	5.5–22	A1	36CUDP6BD	37CUDP6BDD	60A/250V	37CUDP6BDF	30	37CUDP6BDP
	10	1	—	5.5–22	A1	36DUDP6BD	37DUDP6BDD	60A/250V	37DUDP6BDF	50	37DUDP6BDP
	15	—	1 ^{3/4}	10–40	A1	36EUEP6BD	37EUEP6BDD	100A/250V	37EUEP6BDF	100	37EUEP6BDP
	20	2	—	13–52	B	36FUEP6BD	37FUEP6BDD	100A/250V	37FUEP6BDF	100	37FUEP6BDP
	30	—	2 ^{1/2}	25–100	B	36GUGP6BD	37GUGP6BDD	200A/250V	37GUGP6BDF	125	37GUGP6BDP
	40	3	—	25–100	B	36HUGP6BD	37HUGP6BDD	200A/250V	37HUGP6BDF	150	37HUGP6BDP
	50	—	3 ^{1/2}	50–200	B	36IUHP6BD	37IUHP6BDD	200A/250V	37IUHP6BDF	250	37IUHP6BDP
	75	4	—	50–200	B	36JUHP6BD	37JUHP6BDD	400A/250V	37JUHP6BDF	400	37JUHP6BDP
	100	5	—	55–250	—	—	—	—	—	600	37LSP6BDP
	150	5	—	55–250	—	36LPUP6BD	37LPUP6BDD	600A/250V	37LPUP6BDF	600	37LPUP6BDP
230	7 ^{1/2}	0	—	5.5–22	A1	36CUDP2BD	37CUDP2BDD	60A/250V	37CUDP2BDF	30	37CUDP2BDP
	10	1	—	5.5–22	A1	36DUDP2BD	37DUDP2BDD	60A/250V	37DUDP2BDF	50	37DUDP2BDP
	20	—	1 ^{3/4}	10–40	A1	36EUEP2BG	37EUEP2BGD	100A/250V	37EUEP2BGF	100	37EUEP2BGP
	25	2	—	13–52	B	36FUEP2BG	37FUEP2BGD	100A/250V	37FUEP2BGF	100	37FUEP2BGP
	30	—	2 ^{1/2}	25–100	B	36GUGP2BG	37GUGP2BGD	200A/250V	37GUGP2BGF	100	37GUGP2BGP
	50	3	—	25–100	B	36HUGP2BG	37HUGP2BGD	200A/250V	37HUGP2BGF	150	37HUGP2BGP
	60	—	3 ^{1/2}	50–200	B	36IUHP2BG	37IUHP2BGD	200A/250V	37IUHP2BGF	250	37IUHP2BGP
	75	4	—	50–200	B	36JUHP2BG	37JUHP2BGD	400A/250V	37JUHP2BGF	250	37JUHP2BGP
	125	5	—	55–250	—	—	—	—	—	400	37LSP2BGP
	150	5	—	55–250	—	36LPUP2BG	37LPUP2BGD	600A/250V	37LPUP2BGF	600	37LPUP2BGP
460	300	6	—	160–630	—	36MPXP2BG	37MPXP2BGD	1200A/250V	37MPXP2BGF	1200	37MPXP2BGP
	10	0	—	5.5–22	A1	36CUCP4BD	37CUCP4BDD	30A/600V	37CUCP4BDF	30	37CUCP4BDP
	15	1	—	5.5–22	A1	36DUCP4BD	37DUCP4BDD	60A/600V	37DUCP4BDF	30	37DUCP4BDP
	30	—	1 ^{3/4}	10–40	A1	36EUEP4BH	37EUEP4BHD	60A/600V	37EUEP4BHF	50	37EUEP4BHP
	40	2	—	13–52	B	36FUEP4BH	37FUEP4BHD	100A/600V	37FUEP4BHF	100	37FUEP4BHP
	60	—	2 ^{1/2}	25–100	B	36GUGP4BH	37GUGP4BHD	200A/600V	37GUGP4BHF	100	37GUGP4BHP
	75	3	—	25–100	B	36HUGP4BH	37HUGP4BHD	200A/600V	37HUGP4BHF	125	37HUGP4BHP
	100	—	3 ^{1/2}	50–200	B	36IUHP4BH	37IUHP4BHD	200A/600V	37IUHP4BHF	150	37IUHP4BHP
	150	4	—	50–200	B	36JUHP4BH	37JUHP4BHD	400A/600V	37JUHP4BHF	250	37JUHP4BHP
	250	5	—	55–250	—	—	—	—	—	400	37LSP4BHP
575	350	5	—	55–250	—	36LPUP4BH	37LPUP4BHD	600A/600V	37LPUP4BHF	600	37LPUP4BHP
	600	6	—	160–630	—	36MPXP4BH	37MPXP4BHD	1200A/600V	37MPXP4BHF	1200	37MPXP4BHP
	10	0	—	5.5–22	A1	36CUCP5BD	37CUCP5BDD	30A/600V	37CUCP5BDF	30	37CUCP5BDP
	15	1	—	5.5–22	A1	36DUCP5BD	37DUCP5BDD	60A/600V	37DUCP5BDF	30	37DUCP5BDP
	30	—	1 ^{3/4}	10–40	A1	36EUEP5BH	37EUEP5BHD	60A/600V	37EUEP5BHF	50	37EUEP5BHP
	40	2	—	13–52	B	36FUEP5BH	37FUEP5BHD	60A/600V	37FUEP5BHF	50	37FUEP5BHP
	60	—	2 ^{1/2}	25–100	B	36GUGP5BH	37GUGP5BHD	100A/600V	37GUGP5BHF	100	37GUGP5BHP
	75	3	—	25–100	B	36HUGP5BH	37HUGP5BHD	200A/600V	37HUGP5BHF	125	37HUGP5BHP
	100	—	3 ^{1/2}	50–200	B	36IUHP5BH	37IUHP5BHD	400A/600V	37IUHP5BHF	150	37IUHP5BHP
	150	4	—	50–200	B	36JUHP5BH	37JUHP5BHD	400A/600V	37JUHP5BHF	250	37JUHP5BHP
575	250	5	—	55–250	—	—	—	400A/600V	37LSP5BHF	—	—
	350	5	—	55–250	—	36LPUP5BH	37LPUP5BHD	600A/600V	37LPUP5BHF	400	37LPUP5BHP
	600	6	—	160–630	—	36MPXP5BH	37MPXP5BHD	1200A/600V	37MPXP5BHF	1200	37MPXP5BHP
	600	6	—	160–630	—	36MPXP5BH	37MPXP5BHD	1200A/600V	37MPXP5BHF	1200	37MPXP5BHP

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

Reduced Voltage Heavy Duty Starters

Wye Delta, Closed Transition with Solid State Overload, Class 36 & 37

Selection



Coil and Control Voltage

The coil voltage will always match the motor voltage.
As standard, a CPT is supplied and 120V control voltage is utilized.
To change to 120V separate control voltage (CPT not supplied), change the 9th character to "F".
To change to 24VAC separate control voltage (CPT not supplied), change the 9th character to "J".

NEMA 1 General Purpose Enclosures

Motor Voltage	Max HP	NEMA Size	Half Size	Overload		Non-Combination Enclosure	Combination Non-Fusible Disconnect	Fuse Clip Size Amps/Volts	Combination Fusible Disconnect	Circuit Breaker Amps	Combination Circuit Breaker
				Amp Range	Frame Size	Catalogue Number	Catalogue Number		Catalogue Number		Catalogue Number
200	10	1	—	10–40	A1	36DUE06BD	37DUE06BDD	60A/250V	37DUE06BDF	50	37DUE06BDP
	15	—	1 ^{3/4}	10–40	A1	36EUE06BD	37EUE06BDD	100A/250V	37EUE06BDF	100	37EUE06BDP
	20	2	—	13–52	B	36FUF06BD	37FUF06BDD	100A/250V	37FUF06BDF	100	37FUF06BDP
	30	—	2 ^{1/2}	25–100	B	36GUG06BD	37GUG06BDD	200A/250V	37GUG06BDF	125	37GUG06BDP
	40	3	—	25–100	B	36HUG06BD	37HUG06BDD	200A/250V	37HUG06BDF	150	37HUG06BDP
	50	—	3 ^{1/2}	50–200	B	36IUH06BD	37IUH06BDD	200A/250V	37IUH06BDF	250	37IUH06BDP
	60	4	—	50–200	B	36JUH06BD	37JUH06BDD	400A/250V	37JUH06BDF	250	37JUH06BDP
	75	5	—	55–250	—	36LPS06BD	37LPS06BDD	400A/250V	37LPS06BDF	400	37LPS06BDP
	150	5	—	55–250	—	36LPU06BD	37LPU06BDD	600A/250V	37LPU06BDF	600	37LPU06BDP
	300	6	—	160–630	—	36MPX06BD	37MPX06BDD	1200A/250V	37MPX06BDF	1200	37MPX06BDP
230	10	1	—	10–40	A1	36DUE02BG	37DUE02BGD	60A/250V	37DUE02BGF	50	37DUE02BGP
	15	—	1 ^{3/4}	10–40	A1	36EUE02BG	37EUE02BGD	60A/250V	37EUE02BGF	50	37EUE02BGP
	25	2	—	13–52	B	36FUF02BG	37FUF02BGD	100A/250V	37FUF02BGF	100	37FUF02BGP
	30	—	2 ^{1/2}	25–100	B	36GUG02BG	37GUG02BGD	200A/250V	37GUG02BGF	100	37GUG02BGP
	50	3	—	25–100	B	36HUG02BG	37HUG02BGD	200A/250V	37HUG02BGF	150	37HUG02BGP
	60	—	3 ^{1/2}	50–200	B	36IUH02BG	37IUH02BGD	200A/250V	37IUH02BGF	250	37IUH02BGP
	75	4	—	50–200	B	36JUH02BG	37JUH02BGD	400A/250V	37JUH02BGF	250	37JUH02BGP
	100	5	—	55–250	—	36LPS02BG	37LPS02BGD	400A/250V	37LPS02BGF	400	37LPS02BGP
	150	5	—	55–250	—	36LPU02BG	37LPU02BGD	600A/250V	37LPU02BGF	600	37LPU02BGP
	350	6	—	160–630	—	36MPX02BG	37MPX02BGD	1200A/250V	37MPX02BGF	1200	37MPX02BGP
460	15	1	—	10–40	A1	36DUD04BH	37DUD04BHD	30A/600V	37DUD04BHF	30	37DUD04BHP
	30	—	1 ^{3/4}	10–40	A1	36EUE04BH	37EUE04BHD	60A/600V	37EUE04BHF	50	37EUE04BHP
	40	2	—	13–52	B	36FUF04BH	37FUF04BHD	100A/600V	37FUF04BHF	100	37FUF04BHP
	60	—	2 ^{1/2}	25–100	B	36GUG04BH	37GUG04BHD	200A/600V	37GUG04BHF	100	37GUG04BHP
	75	3	—	25–100	B	36HUG04BH	37HUG04BHD	200A/600V	37HUG04BHF	125	37HUG04BHP
	100	—	3 ^{1/2}	50–200	B	36IUH04BH	37IUH04BHD	200A/600V	37IUH04BHF	150	37IUH04BHP
	150	4	—	50–200	B	36JUH04BH	37JUH04BHD	400A/600V	37JUH04BHF	250	37JUH04BHP
	200	5	—	55–250	—	36LPS04BH	37LPS04BHD	400A/600V	37LPS04BHF	400	37LPS04BHP
	300	5	—	55–250	—	36LPU04BH	37LPU04BHD	600A/600V	37LPU04BHF	600	37LPU04BHP
	700	6	—	160–630	—	36MPX04BH	37MPX04BHD	1600A/600V	37MPX04BHF	1200	37MPX04BHP
575	15	1	—	10–40	A1	36DUD05BE	37DUD05BED	30A/600V	37DUD05BEF	30	37DUD05BEP
	30	—	1 ^{3/4}	10–40	A1	36EUE05BE	37EUE05BED	60A/600V	37EUE05BEF	50	37EUE05BEP
	40	2	—	13–52	B	36FUF05BE	37FUF05BED	100A/600V	37FUF05BEF	50	37FUF05BEP
	60	—	2 ^{1/2}	25–100	B	36GUG05BE	37GUG05BED	100A/600V	37GUG05BEF	100	37GUG05BEP
	75	3	—	25–100	B	36HUG05BE	37HUG05BED	200A/600V	37HUG05BEF	125	37HUG05BEP
	100	—	3 ^{1/2}	50–200	B	36IUK05BE	37IUK05BED	200A/600V	37IUK05BEF	150	37IUK05BEP
	150	4	—	50–200	B	36JUH05BE	37JUH05BED	400A/600V	37JUH05BEF	250	37JUH05BEP
	200	5	—	55–250	—	36LPS05BE	37LPS05BED	400A/600V	37LPS05BEF	250	37LPS05BEP
	300	5	—	55–250	—	36LPU05BE	37LPU05BED	600A/600V	37LPU05BEF	400	37LPU05BEP
	700	6	—	160–630	—	36MPX05BE	37MPX05BED	1600A/600V	37MPX05BEF	1600	37MPX05BEP

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

Reduced Voltage Heavy Duty Starters

Wye Delta, Open Transition with Solid State Overload, Class 36 & 37

Selection



Coil and Control Voltage

The coil voltage will always match the motor voltage.
As standard, a CPT is supplied and 120V control voltage is utilized.
To change to 120V separate control voltage (CPT not supplied), change the 9th character to "F".
To change to 24VAC separate control voltage (CPT not supplied), change the 9th character to "J".

NEMA 1 General Purpose Enclosures

Motor Voltage	Max HP	NEMA Size	Half Size	Overload		Non-Combination Enclosure	Combination Non-Fusible Disconnect	Fuse Clip Size Amps/Volts	Combination Fusible Disconnect	Circuit Breaker Amps	Combination Circuit Breaker
				Amp Range	Frame Size	Catalogue Number	Catalogue Number		Catalogue Number		Catalogue Number
200	10	1	—	10–40	A1	36DUEC6BD	37DUEC6BDD	60A/250V	37DUEC6BDF	50	37DUEC6BDP
	15	—	1 ^{3/4}	10–40	A1	36EUEC6BD	37EUEC6BDD	100A/250V	37EUEC6BDF	100	37EUEC6BDP
	20	2	—	13–52	B	36FUEC6BD	37FUEC6BDD	100A/250V	37FUEC6BDF	100	37FUEC6BDP
	30	—	2 ^{1/2}	25–100	B	36GUGC6BD	37GUGC6BDD	200A/250V	37GUGC6BDF	125	37GUGC6BDP
	40	3	—	25–100	B	36HUGC6BD	37HUGC6BDD	200A/250V	37HUGC6BDF	150	37HUGC6BDP
	50	—	3 ^{1/2}	50–200	B	36IUHC6BD	37IUHC6BDD	200A/250V	37IUHC6BDF	250	37IUHC6BDP
	60	4	—	50–200	B	36JUHC6BD	37JUHC6BDD	400A/250V	37JUHC6BDF	250	37JUHC6BDP
	75	5	—	55–250	—	36LPSC6BD	37LPSC6BDD	400A/250V	37LPSC6BDF	400	37LPSC6BDP
	150	5	—	55–250	—	36LPUC6BD	37LPUC6BDD	600A/250V	37LPUC6BDF	600	37LPUC6BDP
230	300	6	—	160–630	—	36MPXC6BD	37MPXC6BDD	1200A/250V	37MPXC6BDF	1200	37MPXC6BDP
	10	1	—	10–40	A1	36DUEC2BG	37DUEC2BGD	60A/250V	37DUEC2BGF	50	37DUEC2BGP
	15	—	1 ^{3/4}	10–40	A1	36EUEC2BG	37EUEC2BGD	60A/250V	37EUEC2BGF	50	37EUEC2BGP
	25	2	—	13–52	B	36FUEC2BG	37FUEC2BGD	100A/250V	37FUEC2BGF	100	37FUEC2BGP
	30	—	2 ^{1/2}	25–100	B	36GUGC2BG	37GUGC2BGD	200A/250V	37GUGC2BGF	100	37GUGC2BGP
	50	3	—	25–100	B	36HUGC2BG	37HUGC2BGD	200A/250V	37HUGC2BGF	150	37HUGC2BGP
	60	—	3 ^{1/2}	50–200	B	36IUHC2BG	37IUHC2BGD	200A/250V	37IUHC2BGF	250	37IUHC2BGP
	75	4	—	50–200	B	36JUHC2BG	37JUHC2BGD	400A/250V	37JUHC2BGF	250	37JUHC2BGP
	100	5	—	55–250	—	36LPSC2BG	37LPSC2BGD	400A/250V	37LPSC2BGF	400	37LPSC2BGP
460	150	5	—	55–250	—	36LPUC2BG	37LPUC2BGD	600A/250V	37LPUC2BGF	600	37LPUC2BGP
	350	6	—	160–630	—	36MPXC2BG	37MPXC2BGD	1200A/250V	37MPXC2BGF	1200	37MPXC2BGP
	15	1	—	10–40	A1	36DUDC4BH	37DUDC4BHD	30A/600V	37DUDC4BHF	30	37DUDC4BHP
	30	—	1 ^{3/4}	10–40	A1	36EUEC4BH	37EUEC4BHD	60A/600V	37EUEC4BHF	50	37EUEC4BHP
	40	2	—	13–52	B	36FUEC4BH	37FUEC4BHD	100A/600V	37FUEC4BHF	100	37FUEC4BHP
	60	—	2 ^{1/2}	25–100	B	36GUGC4BH	37GUGC4BHD	200A/600V	37GUGC4BHF	100	37GUGC4BHP
	75	3	—	25–100	B	36HUGC4BH	37HUGC4BHD	200A/600V	37HUGC4BHF	125	37HUGC4BHP
	100	—	3 ^{1/2}	50–200	B	36IUHC4BH	37IUHC4BHD	200A/600V	37IUHC4BHF	150	37IUHC4BHP
	150	4	—	50–200	B	36JUHC4BH	37JUHC4BHD	400A/600V	37JUHC4BHF	250	37JUHC4BHP
575	200	5	—	55–250	—	36LPSC4BH	37LPSC4BHD	400A/600V	37LPSC4BHF	400	37LPSC4BHP
	300	5	—	55–250	—	36LPUC4BH	37LPUC4BHD	600A/600V	37LPUC4BHF	600	37LPUC4BHP
	700	6	—	160–630	—	36MPXC4BH	37MPXC4BHD	1600A/600V	37MPXC4BHF	1200	37MPXC4BHP
	15	1	—	10–40	A1	36DUDC5BE	37DUDC5BED	30A/600V	37DUDC5BEF	30	37DUDC5BEP
	30	—	1 ^{3/4}	10–40	A1	36EUEC5BE	37EUEC5BED	60A/600V	37EUEC5BEF	50	37EUEC5BEP
	40	2	—	13–52	B	36FUEC5BE	37FUEC5BED	100A/600V	37FUEC5BEF	50	37FUEC5BEP
	60	—	2 ^{1/2}	25–100	B	36GUGC5BE	37GUGC5BED	100A/600V	37GUGC5BEF	100	37GUGC5BEP
	75	3	—	25–100	B	36HUGC5BE	37HUGC5BED	200A/600V	37HUGC5BEF	125	37HUGC5BEP
	100	—	3 ^{1/2}	50–200	B	36IUHC5BE	37IUHC5BED	200A/600V	37IUHC5BEF	150	37IUHC5BEP
	150	4	—	50–200	B	36JUHC5BE	37JUHC5BED	400A/600V	37JUHC5BEF	250	37JUHC5BEP
	200	5	—	55–250	—	36LPSC5BE	37LPSC5BED	400A/600V	37LPSC5BEF	250	37LPSC5BEP
	300	5	—	55–250	—	36LPUC5BE	37LPUC5BED	600A/600V	37LPUC5BEF	400	37LPUC5BEP
	700	6	—	160–630	—	37MPXC5BF	37MPXC5BED	1600A/600V	37MPXC5BEF	1600	37MPXC5BEP

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

Duplex Heavy Duty Controllers

Non-Combination, Class 83

Selection

	Ordering Information		Coil Table	
	► Standard coil voltage supplied will be 120V, separate control. For non-alternator styles (see factory modifications) change the 9th character using the coil table.		60Hz Voltage	Letter
			24 Separate Control ^②	J
			120 Separate Control	F
			200–208 ^②	D
			220–240 ^②	G
			277 ^②	L
			440–480 ^②	H
			550–600 ^②	E

Non-Combination (with Solid-State Overload)

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Painted Watertight, Dust-tight,	NEMA 12 NEMA 3/3R ^① Industrial Use Weatherproof (Field Convertible to 3/3R)
								Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	83CUA92BF	83CUA92WF	83CUA92EF	83CUA920F
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	83CUB92BF	83CUB92WF	83CUB92EF	83CUB920F
2	2	5	5	0	—	3–12	A1	83CUC92BF	83CUC92WF	83CUC92EF	83CUC920F
3	3	—	—	0	—	5.5–22	A1	83CUD92BF	83CUD92WF	83CUD92EF	83CUD920F
1/6	1/6	1/3	1/2	1	—	0.25–1	A	83DUA92BF	83DUA92WF	83DUA92EF	83DUA920F
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	83DUB92BF	83DUB92WF	83DUB92EF	83DUB920F
2	2	5	5	1	—	3–12	A1	83DUC92BF	83DUC92WF	83DUC92EF	83DUC920F
3	3	10	10	1	—	5.5–22	A1	83DUD92BF	83DUD92WF	83DUD92EF	83DUD920F
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	83DUE92BF	83DUE92WF	83DUE92EF	83DUE920F
10	10	15	15	—	1 ^{3/4}	10–40	A1	83EUE92BF	83EUE92WF	83EUE92EF	83EUE920F
10	15	25	25	2	—	13–52	B	83FUF92BF	83FUF92WF	83FUF92EF	83FUF920F
15	20	30	30	—	2 ^{1/2}	25–100	B	83GUG92BF	83GUG92WF	83GUG92EF	83GUG920F
25	30	50	50	3	—	25–100	B	83HUG92BF	83HUG92WF	83HUG92EF	83HUG920F
30	40	75	75	—	3 ^{1/2}	50–200	B	83IUH92BF	83IUH92WF	83IUH92EF	83IUH920F
40	50	100	100	4	—	50–200	B	83JUH92BF	83JUH92WF	83JUH92EF	83JUH920F

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

① NEMA 12 is field convertible to NEMA 3/3R. For conduit hubs and conversion instructions

② Not available on standard alternator style ('92' in the catalogue number).

Duplex Heavy Duty Controllers

Combination Disconnect (Fusible and Non-Fusible), Class 84

Selection

	Ordering Information		Coil Table	
	► Standard coil voltage supplied will be 120V, separate control. For non-alternator styles (see factory modifications) change the 10th character using the coil table.		60Hz Voltage	Letter
			24 Separate Control ^②	J
			120 Separate Control	F
			200–208 ^②	D
			220–240 ^②	G
			277 ^②	L
			440–480 ^②	H
			550–600 ^②	E

Two Disconnect Switches with Solid-State Overload

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 Watertight, Dust-tight, Corrosion Resistant 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Painted Watertight, Dust-tight	NEMA 12 NEMA 3/3R ^① Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	30	84CUA92BDF	84CUA92WDF	84CUA92EDF	84CUA920DF
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	30	84CUB92BDF	84CUB92WDF	84CUB92EDF	84CUB920DF
2	2	5	5	0	—	3–12	A1	30	84CUC92BDF	84CUC92WDF	84CUC92EDF	84CUC920DF
3	3	—	—	0	—	5.5–22	A1	30	84CUD92BDF	84CUD92WDF	84CUD92EDF	84CUD920DF
1/6	1/6	1/3	1/2	1	—	0.25–1	A	30	84DUA92BDF	84DUA92WDF	84DUA92EDF	84DUA920DF
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	30	84DUB92BDF	84DUB92WDF	84DUB92EDF	84DUB920DF
2	2	5	5	1	—	3–12	A1	30	84DUC92BDF	84DUC92WDF	84DUC92EDF	84DUC920DF
3	3	10	10	1	—	5.5–22	A1	30	84DUD92BDF	84DUD92WDF	84DUD92EDF	84DUD920DF
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	30	84DUE92BDF	84DUE92WDF	84DUE92EDF	84DUE920DF
10	10	15	15	—	1 ^{3/4}	10–40	A1	60	84EUE92BDF	84EUE92WDF	84EUE92EDF	84EUE920DF
10	15	25	25	2	—	13–52	B	60	84FUF92BDF	84FUF92WDF	84FUF92EDF	84FUF920DF
15	20	30	30	—	2 ^{1/2}	25–100	B	100	84GUG92BDF	84GUG92WDF	84GUG92EDF	84GUG920DF
25	30	50	50	3	—	25–100	B	100	84HUG92BDF	84HUG92WDF	84HUG92EDF	84HUG920DF
30	40	75	75	—	3 ^{1/2}	50–200	B	200	84IUH92BDF	84IUH92WDF	84IUH92EDF	84IUH920DF
40	50	100	100	4	—	50–200	B	200	84JUH92BDF	84JUH92WDF	84JUH92EDF	84JUH920DF

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

① NEMA 12 is field convertible to NEMA 3/3R.

② Not available on standard alternator style ('92' in the catalogue number).

Duplex Heavy Duty Controllers

Combination Circuit Breaker, Class 84

Selection

	Ordering Information		Coil Table	
			60Hz Voltage	Letter
	► Standard coil voltage supplied will be 120V, separate control. For non-alternator styles (see factory modifications) change the 10th character using the coil table.		24 Separate Control ^②	J
			120 Separate Control	F
			200–208 ^②	D
			220–240 ^②	G
			277 ^②	L
			440–480 ^②	H
			550–600 ^②	E

Two Motor Circuit Protectors (with Solid-State Overload)

Max HP				NEMA Size	Half Size	Overload		Motor Circuit Interrupter ETI	Enclosure			
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 304 Stainless Steel 316 Stainless Steel (Optional)	NEMA 4X Painted Watertight, Dust-tight	NEMA 12 NEMA 3/3R ^① Industrial Use Weatherproof (Field Convertible to 3/3R)
									Catalogue Number	Catalogue Number	Catalogue Number	Catalogue Number
1/6	1/6	1/3	1/2	0	—	0.25–1	A	3	84CUA92BMF	84CUA92WMF	84CUA92EMF	84CUA920MF
1/2	3/4	1 ^{1/2}	2	0	—	0.75–3.4	A	3	84CUB92BMF	84CUB92WMF	84CUB92EMF	84CUB920MF
2	2	5	5	0	—	3–12	A1	10	84CUC92BMF	84CUC92WMF	84CUC92EMF	84CUC920MF
3	3	—	—	0	—	5.5–22	A1	25	84CUD92BMF	84CUD92WMF	84CUD92EMF	84CUD920MF
1/6	1/6	1/3	1/2	1	—	0.25–1	A	3	84DUA92BMF	84DUA92WMF	84DUA92EMF	84DUA920MF
1/2	3/4	1 ^{1/2}	2	1	—	0.75–3.4	A	3	84DUB92BMF	84DUB92WMF	84DUB92EMF	84DUB920MF
2	2	5	5	1	—	3–12	A1	10	84DUC92BMF	84DUC92WMF	84DUC92EMF	84DUC920MF
3	3	10	10	1	—	5.5–22	A1	25	84DUD92BMF	84DUD92WMF	84DUD92EMF	84DUD920MF
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10–40	A1	30	84DUE92BMF	84DUE92WMF	84DUE92EMF	84DUE920MF
—	—	15	15	—	1 ^{3/4}	10–40	A1	40	84EUE92BMF	84EUE92WMF	84EUE92EMF	84EUE920MF
10	15	25	25	2	—	13–52	B	50	84FUF92BMF	84FUF92WMF	84FUF92EMF	84FUF920MF
15	20	30	30	—	2 ^{1/2}	25–100	B	100	84GUG92BMF	84GUG92WMF	84GUG92EMF	84GUG920MF
25	30	50	50	3	—	25–100	B	100	84HUG92BMF	84HUG92WMF	84HUG92EMF	84HUG920MF
30	40	75	75	—	3 ^{1/2}	50–200	B	125	84IUH92BMF	84IUH92WMF	84IUH92EMF	84IUH920MF
40	50	100	100	4	—	50–200	B	150	84JUH92BMF	84JUH92WMF	84JUH92EMF	84JUH920MF

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

① NEMA 12 is field convertible to NEMA 3/3R.

② Not available on standard alternator style ('92' in the catalogue number).

Pump Control Panels

Standard Pump Panel with Solid State Overload, Class 87

Selection

	Ordering Information		Coil Table	
			60Hz Voltage	Letter
	- Sizes 1-4 will be supplied standard with a 240/480 volt coil. To change the coil voltage, change the 8th character in the catalogue number to the letter shown in the coil table. - Sizes 5 & 6 will be supplied standard with a 480 volt coil. To change the coil voltage, change the 8th character in the catalogue number to the letter shown in the coil table.		24 Separate Control 120 Separate Control 110-120/220-240 200-200 220-240 220-240/440-480 277 440-480 550-600	J F A ^① D G C ^① L H E

Fusible Disconnect

Max HP				NEMA Size	Half Size	Overload		Disc. Amp Range	Fuse Clip Amp / Volts	Catalogue Number
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size			
—	—	1	1	1	—	0.75—3.4	A	30	30A/600V	87DUB6FC
—	—	5	5	1	—	3—12	A1	30	30A/600V	87DUC6FC
—	—	7 ^{1/2}	10	1	—	5.5—22	A1	30	30A/600V	87DUD6FC
—	—	7 ^{1/2}	10	1	—	5.5—22	A1	60	60A/600V	87DUD60C
—	—	15	15	—	1 ^{3/4}	10—40	A1	30	30A/600V	87EUE6FC
—	—	15	15	—	1 ^{3/4}	10—40	A1	60	60A/600V	87EUE60C
—	—	15	25	2	—	13—52	B	60	60A/600V	87FUF6FC
—	—	25	25	2	—	13—52	B	100	100A/600V	87FUF60C
—	—	30	30	—	2 ^{1/2}	13—52	B	60	60A/600V	87GUG6FC
—	—	30	30	—	2 ^{1/2}	13—52	B	100	100A/600V	87GUG60C
—	—	50	50	3	—	25—100	B	100	100A/600V	87HUG6FC
—	—	50	50	3	—	25—100	B	200	200A/600V	87HUG60C
—	—	75	75	—	3 ^{1/2}	50—200	B	200	200A/600V	87IUH6FC
—	—	100	100	4	—	50—200	B	200	200A/600V	87JUH6FC
—	—	200	200	5	—	100—270	—	400	400A/600V	87LPU6FH
—	—	250	—	6	—	200—540	—	600	600A/600V	87MSW6FH
2	2	—	—	1	—	3—12	A1	30	30A/250V	87DUC6LC
3	3	—	—	1	—	5.5—22	A1	30	30A/250V	87DUD6LC
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10—40	A1	30	30A/250V	87DUE6LC
7 ^{1/2}	7 ^{1/2}	—	—	1	—	10—40	A1	60	60A/250V	87DUE6PC
10	10	—	—	—	1 ^{3/4}	10—40	A1	60	60A/250V	87EUE6LC
10	15	—	—	2	—	13—52	B	60	60A/250V	87FUF6LC
10	15	—	—	2	—	13—52	B	100	100A/250V	87FUF6PC
15	20	—	—	—	2 ^{1/2}	25—100	B	60	60A/250V	87GUG6LC
15	20	—	—	—	2 ^{1/2}	25—100	B	100	100A/250V	87GUG6PC
25	30	—	—	3	—	25—100	B	100	100A/250V	87HUG6LC
25	30	—	—	3	—	25—100	B	200	200A/250V	87HUG6PC
30	40	—	—	—	3 ^{1/2}	50—200	B	200	200A/250V	87IUH6LC
40	50	—	—	4	—	50—200	B	200	200A/250V	87JUH6LC
75	100	—	—	5	—	55—250	—	400	400A/250V	87LPU6LH

Circuit Breaker

Max HP				NEMA Size	Half Size	Overload		Motor Circuit Interrupter ETI Amps	Catalogue Number
200 Volts	230 Volts	460 Volts	575 Volts			Amp Range	Frame Size		
1/2	1/2	1	1	1	—	0.75—3.4	A	3	87DUB6MC
2	2	5	5	1	—	3—12	A1	10	87DUC6MC
3	3	7 ^{1/2}	10	1	—	5.5—22	A1	25	87DUD6MC
7 ^{1/2}	7 ^{1/2}	10	—	1	—	10—40	A1	30	87DUE6MC
—	—	15	15	—	1 ^{3/4}	10—40	A1	40	87EUE6MC
10	15	25	25	2	—	13—52	B	50	87FUF6MC
15	20	30	30	—	2 ^{1/2}	25—100	B	100	87GUG6MC
25	30	50	50	3	—	25—100	B	100	87HUG6MC
30	40	75	75	—	3 ^{1/2}	50—200	B	125	87IUH6MC
40	50	100	100	4	—	50—200	B	150	87JUH6MC
50	75	150	200	5	—	55—250	B	250	87LPT6MH
75	100	200	200	5	—	55—250	B	400	87LPU6MC
100	125	250	300	6	—	160—630	—	400	87MSW6MH
150	200	400	400	6	—	160—630	—	600	87MSX6MC

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

① Not available on Size 5 and larger.

② For an overload amp range of 0.25-1A, change the 5th character from a 'B' to an 'A'.

Pump Control Panels

Vacuum Starter Pump Panels with Solid-State Overload Relay, Class 87

Selection

Ordering Information	Coil Table	
	60Hz Voltage	Letter
► Sizes 4-6 will be supplied standard with a 480 volt coil. To change the coil voltage, change the 8th character in the catalogue number to the letter shown in the coil table.	24 Separate Control	J
	120 Separate Control	F
	200-208	D
	220-240	G
	277	L
	440-480	H
	550-600	E

Fusible Disconnect

Max HP		NEMA Size	Overload Range	Fuse Clip Amps/Volts	Catalogue Number
460 Volts	575 Volts				
100	100	4	55-250A	200A/600V	87JCM4F*
200	200	5	55-250A	400A/600V	87LCU4F*

Circuit Breaker

Max HP		NEMA Size	Overload Range	Circuit Breaker Rating Amps	Catalogue Number
460 Volts	575 Volts				
100	100	4	55-250A	250A	87JCM4M*
200	200	5	55-250A	400A	87LCT4M*
250	300	6	160-540A	400A	87MCW4M*
400	400	6	160-540A	600A	87MCX4M*

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NEMA
DEVICES

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

Reduced Voltage Pump Panels

Auto Transformer & Part Winding (2 Step) with Solid State Overload, Class 88

Selection

Coil and Control Voltage

The coil voltage on the contactors will be the motor voltage. A CPT will be supplied to provide the control voltage. The control voltage will be 120V. To change the control voltage to customer supplied (no CPT included), change the 9th character to the following:
for 24V, use "J"
for 120V, use "F"

Auto Transformer Type

Motor Voltage	Max HP	Overload		NEMA Size	Half Size	Fusible Disconnect		Circuit Breaker	
		Amp Range	Frame Size			Fuse Clip Size Amps/Volts	Catalogue Number	Circuit Breaker Amps	Catalogue Number
230	15	13-52	B	2	—	60A/250V	88FUFT2FG	50	88FUFT2MG
	20	25-100	B	—	2 ^{1/2}	100A/250V	88GUGT2FG	100	88GUGT2MG
	30	25-100	B	3	—	100A/250V	88HUGT2FG	100	88HUGT2MG
	40	50-200	B	—	3 ^{1/2}	200A/250V	88IUHT2FG	125	88IUHT2MG
	50	50-200	B	4	—	200A/250V	88JUHT2FG	150	88JUHT2MG
	75	55-250	—	5	—	—	—	250	88LPST2MG
	100	55-250	—	5	—	400A/250V	88LPST2MG	400	88LPST2MG
460	200	160-630	—	6	—	—	—	600	88MSXT2MG
	25	13-52	B	2	—	60A/600V	88FUFT4FH	50	88FUFT4MH
	30	25-100	B	—	2 ^{1/2}	60A/600V	88GUGT4FH	50	88GUGT4MH
	50	25-100	B	3	—	100A/600V	88HUGT4FH	100	88HUGT4MH
	75	50-200	B	—	3 ^{1/2}	200A/600V	88IUHT4FH	125	88IUHT4MH
	100	50-200	B	4	—	200A/600V	88JUHT4FH	150	88JUHT4MH
	150	55-250	—	5	—	—	—	250	88LPST4MH
	200	55-250	—	5	—	400A/600V	88LPST4MH	400	88LPST4MH
	400	160-630	—	6	—	600A/600V	88MSXT4FH	600	88MSXT4MH

Part Winding 2 Step

Motor Voltage	Max HP	Overload		NEMA Size	Half Size	Fusible Disconnect		Circuit Breaker	
		Amp Range	Frame Size			Fuse Clip Size Amps/Volts	Catalogue Number	Circuit Breaker Amps	Catalogue Number
230	20	10-40	A1	—	1 ^{3/4}	100A/250V	88EUEP2FG	100	88EUEP2MG
	25	13-52	B	2	—	100A/250V	88FUP2FG	100	88FUP2MG
	40	25-100	B	—	2 ^{1/2}	200A/250V	88GUGP2FG	100	88GUGP2MG
	50	25-100	B	3	—	200A/250V	88HUGP2FG	150	88HUGP2MG
	60	50-200	B	—	3 ^{1/2}	200A/250V	88IUHP2FG	250	88IUHP2MG
	75	50-200	B	4	—	400A/250V	88JUHP2FG	250	88JUHP2MG
	125	55-250	—	5	—	—	—	400	88LPSP2MG
	150	55-250	—	5	—	600A/250V	88LPSP2MG	600	88LPSP2MG
460	30	10-40	A1	—	1 ^{3/4}	100A/600V	88EUEP4FG	100	88EUEP4MG
	40	13-52	B	2	—	100A/600V	88FUP4FG	100	88FUP4MG
	60	25-100	B	—	2 ^{1/2}	200A/600V	88GUGP4FG	100	88GUGP4MG
	75	25-100	B	3	—	200A/600V	88HUGP4FG	150	88HUGP4MG
	100	50-200	B	—	3 ^{1/2}	200A/600V	88IUHP4FG	250	88IUHP4MG
	150	50-200	B	4	—	400A/600V	88JUHP4FG	250	88JUHP4MG
	250	55-250	—	5	—	—	—	400	88LPSP4MG
	350	55-250	—	5	—	600A/600V	88LPSP4MG	600	88LPSP4MG

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

Reduced Voltage Pump Panels

Wye Delta with Solid State Overload, Class 88

Selection

Coil and Control Voltage

The coil voltage on the contactors will be the motor voltage. A CPT will be supplied to provide the control voltage. The control voltage will be 120V. To change the control voltage to customer supplied (no CPT included), change the 9th character to the following:
for 24V, use "J"
for 120V, use "F"

Wye Delta

Motor Voltage	Max HP	Overload		NEMA Size	Half Size	Fuse Clip Size Amps/ Volts	Motor Circuit Interrupter ETI Amps	Open Transition		Closed Transition	
		Amp Range	Frame Size					Fusible Disconnect Catalogue Number	Circuit Breaker Catalogue Number	Fusible Disconnect Catalogue Number	Circuit Breaker Catalogue Number
200	10	10—40	A1	1	—	60A/250V	50	88DUE06FD	88DUE06MD	88DUEC6FD	88DUEC6MD
	15	10—40	A1	—	1 ^{3/4}	100A/250V	100	88EUE06FD	88EUE06MD	88EUEC6FD	88EUEC6MD
	20	13—52	B	2	—	100A/250V	100	88FUF06FD	88FUF06MD	88FUC6FD	88FUC6MD
	30	25—100	B	—	2 ^{1/2}	200A/250V	125	88GUG06FD	88GUG06MD	88GUGC6FD	88GUGC6MD
	40	25—100	B	3	—	200A/250V	150	88HUG06FD	88HUG06MD	88HUGC6FD	88HUGC6MD
	50	50—200	B	—	3 ^{1/2}	200A/250V	250	88IUH06FD	88IUH06MD	88IUHC6FD	88IUHC6MD
	60	50—200	B	4	—	400A/250V	250	88JUH06FD	88JUH06MD	88JUHC6FD	88JUHC6MD
	75	55—250	—	5	—	400A/600V	400	88LPS06FD	88LPS06MD	88LPSC6FD	88LPSC6MD
	150	55—250	—	5	—	600A/600V	600	88LPU06FD	88LPU06MD	88LPUC6FD	88LPUC6MD
230	300	160—630	—	6	—	—	800	—	88MSX06MD	—	88MSXC6MD
	10	10—40	A1	1	—	60A/250V	50	88DUE02FG	88DUE02MG	88DUEC2FG	88DUEC2MG
	15	10—40	A1	—	1 ^{3/4}	60A/250V	50	88EUE02FG	88EUE02MG	88EUEC2FG	88EUEC2MG
	25	13—52	B	2	—	100A/250V	100	88FUF02FG	88FUF02MG	88FUC2FG	88FUC2MG
	30	25—100	B	—	2 ^{1/2}	200A/250V	100	88GUG02FG	88GUG02MG	88GUGC2FG	88GUGC2MG
	50	25—100	B	3	—	200A/250V	150	88HUG02FG	88HUG02MG	88HUGC2FG	88HUGC2MG
	60	50—200	B	—	3 ^{1/2}	200A/250V	250	88IUH02FG	88IUH02MG	88IUHC2FG	88IUHC2MG
	75	50—200	B	4	—	400A/250V	250	88JUH02FG	88JUH02MG	88JUHC2FG	88JUHC2MG
	100	55—250	—	5	—	400A/250V	400	88LPS02FG	88LPS02MG	88LPSC2FG	88LPSC2MG
460	150	55—250	—	5	—	600A/250V	600	88LPU02FG	88LPU02MG	88LPUC2FG	88LPUC2MG
	350	160—630	—	6	—	—	1200	—	88MSX02MG	—	88MSXC2MG
	15	10—40	A1	1	—	60A/600V	30	88DUD04FH	88DUD04MH	88DUDC4FH	88DUDC4MH
	30	10—40	A1	—	1 ^{3/4}	60A/600V	50	88EUE04FH	88EUE04MH	88EUEC4FH	88EUEC4MH
	40	13—52	B	2	—	100A/600V	100	88FUF04FH	88FUF04MH	88FUC4FH	88FUC4MH
	60	25—100	B	—	2 ^{1/2}	200A/600V	100	88GUG04FH	88GUG04MH	88GUGC4FH	88GUGC4MH
	75	25—100	B	3	—	200A/600V	125	88HUG04FH	88HUG04MH	88HUGC4FH	88HUGC4MH
	100	50—200	B	—	3 ^{1/2}	200A/600V	150	88IUH04FH	88IUH04MH	88IUHC4FH	88IUHC4MH
	150	50—200	B	4	—	400A/600V	250	88JUH04FH	88JUH04MH	88JUHC4FH	88JUHC4MH
575	200	55—250	—	5	—	400A/600V	400	88LPS04FH	88LPU04MH	88LPSC4FH	88LPSC4MH
	300	55—250	—	5	—	600A/600V	600	88LPU04FH	88LPU04MH	88LPUC4FH	88LPUC4MH
	700	160—630	—	6	—	—	1200	—	88MSX04MH	—	88MSXC4MH
	15	10—40	A1	1	—	60A/600V	30	88DUD05FE	88DUD05ME	88DUDC5FE	88DUDC5ME
	30	10—40	A1	—	1 ^{3/4}	60A/600V	50	88EUE05FE	88EUE05ME	88EUEC5FE	88EUEC5ME
	40	13—52	B	2	—	100A/600V	50	88FUF05FE	88FUF05ME	88FUC5FE	88FUC5ME
	60	25—100	B	—	2 ^{1/2}	200A/600V	100	88GUG05FE	88GUG05ME	88GUGC5FE	88GUGC5ME
	75	25—100	B	3	—	200A/600V	125	88HUG05FE	88HUG05ME	88HUGC5FE	88HUGC5ME
	100	50—200	B	—	3 ^{1/2}	200A/600V	150	88IUH05FE	88IUH05ME	88IUHC5FE	88IUHC5ME
575	150	50—200	B	4	—	400A/600V	250	88JUH05FE	88JUH05ME	88JUHC5FE	88JUHC5ME
	200	55—250	—	5	—	400A/600V	400	88LPS05FE	88LPU05ME	88LPSC5FE	88LPSC5ME
	300	55—250	—	5	—	600A/600V	400	88LPU05FE	88LPU05ME	88LPUC5FE	88LPUC5ME
	700	160—630	—	6	—	—	1200	—	88MSX05ME	—	88MSXC5ME

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

Field Modification Kits

Pilot Devices

Selection

Push Buttons and Selector Switches	Class	Enclosure Type	Controller Size or (Lighting Rating)	Type	Catalogue Number
 49SBPB5  49SBSB1  49SAP05  49SAS01	14, 40, LEN, CLM ^①	Open	00-4	Start, Stop Push Buttons	49SAPB5
		1	00-4 or (20—100A)	Hand-Off-Auto Selector Switch	49SASB1
				Off-On Selector Switch	49SASB4
				Start, Stop Push Buttons	49SBPB5
			5-8 or (200—400A)	Hand-Off-Auto Selector Switch	49SBSB1
				Off-On Selector Switch	49SBSB4
				Start, Stop Push Buttons	49SAP05
		12, 4/4X	00-8 or (20—400A)	Hand-Off-Auto Selector Switch	49SAS01
				Keyed Hand-Off-Auto (key removable in all positions)	49SAS09
				Off-On Selector Switch	49SAS04
				Start, Stop Push Buttons	49SAP05
				Hand-Off-Auto Selector Switch	49SAS01
				Keyed Hand-Off-Auto (key removable in all positions)	49SAS09
				Off-On Selector Switch	49SAS04
	22, 43	Open	00-4	Forward-Off-Reverse Selector Switch	49SASB2
		1	00-4	Forward-Off-Reverse Selector Switch	49SBSB2
			5-8	Forward, Reverse, Stop Push Buttons	49SAP02
				Forward-Off-Reverse Selector Switch	49SAS02
		12, 4/4X	0-8	Forward, Reverse, Stop Push Buttons	49SAP02
				Forward-Off-Reverse Selector Switch	49SAS02
	30 (2S1W)	Open	0-4	High-Off-Low Selector Switch	49SASB3
		1	0-1 ^{3/4}	High-Off-Low Selector Switch	49SBSB3
			2-4	High, Low, Stop Push Buttons	49SAP03
				High-Off-Low Selector Switch	49SAS03
		12, 4/4X	0-4	High, Low, Stop Push Buttons	49SAP03
				High-Off-Low Selector Switch	49SAS03
	30 (2S2W)	Open	0-4	High-Off-Low Selector Switch	49SASB3
		1	0-4	High-Off-Low Selector Switch	49SBSB3
		12, 4/4X	0-4	High, Low, Stop Push Buttons	49SAP03
				High-Off-Low Selector Switch	49SAS03
	17, 18, 36, 37, 83, 84, LED, LEF, LEB, CMN ^① , CMF ^① , CMB ^①	1, 12, 4/4X	0-8 (20-400A)	Start, Stop Push Buttons	49SAP05
				Hand-Off-Auto Selector Switch	49SAS01
				Keyed Hand-Off-Auto (key removable in all positions)	49SAS09
				Off-On Selector Switch	49SAS04
	25, 26	1, 12, 4/4X	0-8	Forward, Reverse, Stop Push Buttons	49SAP02
				Forward-Off-Reverse Selector Switch	49SAS02
	32	1, 12, 4/4X	0-4	High, Low, Stop Push Buttons	49SAP03
				High-Off-Low Selector Switch	49SAS03

① To be used for replacement of switch only. Does not include relay or extra contact block on 30-400A CLM and CM Lighting Contactors. Class 49SB not available for these devices.

Field Modification Kits

Pilot Devices

Selection

Description	Class	Enclosure Type	Controller Size or (Lighting Rating)	Lens Color(s)	Legend(s)	Voltage	Catalogue Number
 49SBLBF	14, 40, 22 ^② , 43 ^② , 30 (2S2W) ^③ LEN, CLM	1	00-4 or (20-200A)	Red, Green, Amber	ON, RUN, OFF ^① , OL TRIPPED, FORWARD, REVERSE, LOW, HIGH	24 Vac	49SBLBJ
						120 Vac	49SBLBF
						208/240/277 Vac	49SBLBG
						480 Vac	49SBLBH
						600 Vac	49SBLBE
	1	5-8 or (300-400A)	Red (Transformer Type)	ON		24 Vac (Full Voltage)	49SPL0BRJ
						120 Vac	49SPL0BRF
						240 Vac	49SPL0BRG
						480 Vac	49SPL0BRH
						600 Vac	49SPL0BRE
	12, 4/4X	0-8 or (20—400A)	Green (Transformer Type)	OFF ^④		24 Vac (Full Voltage)	49SPL0AGJ
						120 Vac	49SPL0AGF
						240 Vac	49SPL0AGG
						480 Vac	49SPL0AGH
						600 Vac	49SPL0AGE
 49SPL0BRF	30 (2S1W) ^②	1	0-4	Red, Green, Amber	ON, RUN, OFF ^① , OL TRIPPED, FORWARD, REVERSE, LOW, HIGH	24 Vac	49SBLBJ
						120 Vac	49SBLBF
						208/240/277 Vac	49SBLBG
						480 Vac	49SBLBH
						600 Vac	49SBLBE
	1	2-4	Red (Transformer Type)	ON		24 Vac (Full Voltage)	49SPL0BRJ
						120 Vac	49SPL0BRF
						240 Vac	49SPL0BRG
						480 Vac	49SPL0BRH
						600 Vac	49SPL0BRE
	12, 4/4X	0-4	Green (Transformer Type)	OFF ^④		24 Vac (Full Voltage)	49SPL0AGJ
						120 Vac	49SPL0AGF
						240 Vac	49SPL0AGG
						480 Vac	49SPL0AGH
						600 Vac	49SPL0AGE
 49SPL0BRF	17, 18, 25 ^② , 26 ^② , 32 ^② , 36, 37, 83, 84, 87, 88, LED, LEF, LEB, CMN, CMF, CMB	1, 12, 4/4X	0-6 (20-400A)	Red (Transformer Type)	ON	24 Vac (Full Voltage)	49SPL0BRJ
						120 Vac	49SPL0BRF
						240 Vac	49SPL0BRG
						480 Vac	49SPL0BRH
						600 Vac	49SPL0BRE
				Green (Transformer Type)	OFF ^④	24 Vac (Full Voltage)	49SPL0AGJ
						120 Vac	49SPL0AGF
						240 Vac	49SPL0AGG
						480 Vac	49SPL0AGH
						600 Vac	49SPL0AGE
 49SBLBL	Lens Kit ONLY (30 (2S1W) (14, 40, 22, 43, 30 (2S2W), LEN, CLM)	1	0-1 ^{3/4} 00-4 (20-200A)	Red, Green, Amber	—	—	49SBLBL

① "Off" PL requires: (1) N.C. aux contact, 49AB01 on sizes 00-4.

② Class 22, 25, 26, 30, 32, 43, 83 & 84 requires qty. of (2) pilot light kits. Does not apply to 49SB kits. Select appropriate legend plate as a separate item per type of starter; either "FORWARD" & "REVERSE" or "LOW" & "HIGH".

③ 2S2W is starter size 0-4.

④ Includes NC aux contact for NEMA starter Size 0-4.

Field Modification Kits

NEMA Accessories

Selection

Starter/Contactor Auxiliary Contact Kits

Description	Class	Size	Type	Catalogue Number
	14, 17, 18, 22, 25, 26, 30, 32, 36, 37, 40, 43, 83, 84, 87, 88	00-4	1 NO	49AB10
			1 NC	49AB01
			1 NC Early Break	49AB01EB
			1 NC Late Break	49AB01LB
			1 NC Extra Late Break	49AB01XLB
			1 NO Extra Late Make	49AB10XLM
			1 NO & 1 NC	49AB11
			2 NO	49AB20
			4 NO	49AB40
			3 NO & 1 NC	49AB31
			2 NO & 2 NC	49AB22
	14, 17, 18, 22, 25, 26, 36, 37, 40, 43, 87, 88	5, 6	2 NO	3RH1921-1EA20
			1 NO & 1 NC	3RH1921-1DA11
			2 NC	3RH1921-1EA02
	14, 17, 18, 22, 25, 26, 40, 43	7, 8	1 NO & 1 NC (Inside L or R)	49CAL18-11
			1 NO & 1 NC (Outside L or R)	49CAL18-11B
	LEN, LED, LEF, LEB	20-60 Amps	1 NO	49ACR0
			1 NC	49ACRC
			2 NO	49ACR7
			1 NO & 1 NC	49ACR6
		100 Amps	2 NC	49ACR8
			1 NO	49D22125001
			1 NC	49D22125002
			1 NO/NC SPDT	49CE42SPDT
	CLM, CMN, CMF, CMB	200-400 Amps	1 NO/NC SPDT	3RH1921-1DA11
		20 Amps	1 NO/NC SPDT	CLM4097291
			2 NO/NC SPDT	CLM4097292
		30-200 Amps	1 NO & 1 NC	CLMFCAK11
			2 NC	CLMFCAK02
			2 NO	CLMFCAK20
			1 Coil Clearing NO & NC	CLMFCCCK11
		300-400 Amps	1 NO & 1 NC	CLMHCAK11
			2 NC	CLMHCAK02
			2 NO	CLMHCAK20
			1 Coil Clearing NO & NC	CLMHCCCK11

Disconnect Auxiliary Switch Kits

Description	Class	Disconnect Amp or CB Rating	Type	Catalogue Number
Non-fusible or Fusible Type 	17, 25, 32, 37, 83, 84, 87, 88, LED, LEF, CMN, CMF	30 - 200A	2 NO/2 NC DPDT (NEMA A600)	HA261234
MCP	18, 26, 32, 37, 83, 84, 87, 88, LEB, CMB	3A-125A	1 NO/1 NC 240V	A02ED62
		250A	1 NO/1 NC 480V	A02FD64
		400A-600A	(2) 1 NO/1 NC SPDT-480V	A02JLD64

① 45VA transformer kits will include secondary but not primary fusing. Sizes 50VA and higher include 2-pole primary fusing and 1-pole secondary fusing.

② For 24VAC control a minimum of 100VA CPT required.

Field Modification Kits

NEMA Accessories

Selection

Control Power Transformer Kits^{①③}

Description	Recommended Transformer Size		VA Rating	Catalogue Number	Transformer Table		
	Control Size	Transformer VA			Primary Volts	Secondary Volts	Code
 Transformer 50/60HZ	0-2 ¹ / ₂	45 or 50	45 VA	KT*050	120	24	1
	3-3 ¹ / ₂	75	50 VA	KT*050P	208	24	G
	4	100	100 VA	KT*100	208	120	H
	5-6	150	150 VA	KT*150	240/480	24	4
	7-8	300	200 VA	KT*200	240/480	120	8
	Lighting Control		300 VA	KT*300	277	24	5
			500 VA	KT*500	277	120	7
	CLM		Replace * with code from Transformer table. Kits used with NEMA 1 general purpose lift-off cover type require extra wide enclosure. Class 14 Sizes 0-2 ¹ / ₂ Class 30 (2S2W) Sizes 0-2 ¹ / ₂ Class 30 (2S1W) Sizes 0-1 ³ / ₄				
	20A, 2 - 12P	150					
	30A, 3P	100					
	30A, 6 - 12P	200					
	60A, 3P	100					
	60A, 4 - 6P	150					
	60A, 8 - 12P	250					
	100/200A, 3P	200					
	100/200A, 5P	250					
	300/400A, 3P	250					
	LEN						
	20A, 3 - 12P	25					
	30/60A, 3 - 6P	25					
	30/60A, 9 - 12P	50					
	100/200A, 3P	75					
	300/400A, 3P	150					
					600	24	6
				600	120	9	

Description	Catalogue Number
 ESP200 Tamper Resistance Cover	49ASTC1
 ESP100/200 Mounting Plate	49ASMP1
	49ASMP2
	49ASMP3
 Starter Mounting Adaptor Plate	49D70084
 Mounting Kit	49ASMS1
 Universal Reset Operator 8" for class 36 and 37 in NEMA 1 and 12	49MARB
 Single Reset (blue) for class 14, 17, 18, 22, 25, 26, 30 and 32 in NEMA 1, 12 and 4/4X	49MBRS
 Single Reset (red) for class 14, 22 and 30 in NEMA 4/4X	49MARSR
 ESP200 Reset Extender	49ASRE
	Current Transformer 300:5 use with 48ATJ3S00
	Current Transformer 400:5 use with 48ATK3S00
	Current Transformer 600:5 use with 48ATL3S00
	Current Transformer 750:5 use with 48ATM3S00
	Current Transformer 1200:5 use with 48ATN3S00

① 45VA transformer kits will include secondary but not primary fusing. Sizes 50VA and higher include 2-pole primary fusing and 1-pole secondary fusing.

③ For 24VAC control a minimum of 100VA CPT required.

Field Modification Kits

NEMA Accessories

Selection

Miscellaneous Kits

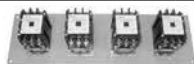
Description		Class	Enclosure Type	Controller Size		Catalogue Number					
 Mechanical Interlock for Horizontally Mounted Contactors	Includes wire	14, 40	Open	00–1 1 ^{3⁄4} 2, 2 ^{1⁄2} 3, 3 ^{1⁄2} 4		49CCF22H 49EEF22H 49GGF22H 49HHP22H 49JJG22H					
	Interlock Only	14, 40	Open	5, 6		3RT1954-2A					
	Wire Kit Only			5 6		3RA1963-2A 3RA1973-2A					
	Base Plate Only			5 6		3RA1962-2A 3RA1972-2A					
	Mechanical Interlock	14, 40	Open	7 8		49VM750H 49VM1650H					
	Includes wire & mounting plate	14, 40	Open	00–1 1 ^{3⁄4} 2, 2 ^{1⁄2} 3, 3 ^{1⁄2} 4		49CCF22HP 49EEF22HP 49GGF22HP 49HHP22HP 49JJG22HP					
	Includes mounting plate (Different Frame Sizes)	14, 40	Open	Left 2, 2 ^{1⁄2} 3, 3 ^{1⁄2}	Right 3, 3 ^{1⁄2} 2, 2 ^{1⁄2}	49L107944 49L107945					
 Surge Suppressor	Surge Suppressor for 120V AC coil. Limits transient voltage produced by the coil to 220% maximum peak line volts.	All but Class LE, CLM	All	00–3 ^{1⁄2} ②		49D26344					
 Auxiliary Power Pole	NO 36A at 600V AC Max NC 25A at 600V AC Max	All but Class LE, CLM	All	00–1 ^{3⁄4}		49SAF0 49SAFC					
 Auxiliary Power Pole	2 NC (mounts to contactor or power pole) 2 NO (mounts to contactor or power pole) 2 NO (mounts to contactor only) 1 NO (mounts to contactor only)	LEN, LED, LEF, LEB	All	20 Amps		49LN02A 49LN20A 49LS20A 49LS10A					
 Main Contacts Lighting Contactors	Top or Bottom, 2-Pole Top, 3-Pole Top or Bottom, 4-Pole Top or Bottom, 6-Pole	CLM	All	20 Amps		CLM4097331 CLM4097332 CLM4097333 CLM4097334					
 Mounting Kit for Open Heating & Lighting	6 - 12-poles	LEN, CLM	Open	30, 60 Amp		49MCPMA					
 Load Side Power Take Off Kit	Includes 3 power lugs for making extra connections to the load side of the contactor	All but Class LE, CLM	All	00–1 ^{3⁄4}		49SAE					
 Lug Kit for Contactors	Item	Wire Range	14, 40	All	2, 2 ^{1⁄2} 3, 3 ^{1⁄2} 4 Line 4 Load	49SAAF ^④ 49SAAH ^④ 75D35994002 ^④					
	49SAAF	2-14					For AL/CU Wire	14, 40	All	5, 6	3RT1966-4G ^③
	49SAAH	2/0-14									
	75D35994001	250MCM-6					Use CU Only	14, 40	All	7 8	49ZATK750-3 ^③ 49ZATK1650-6 ^③
 Ground Lug Kit Meets CSA Standard 22.2 No 14-1973	1 Conductor 2-14 for AL/CU Wire		All	All	All	49D11960001					
Lightning Arrestor			All	All	All	49D45584002					
 Backspin Timer	On delay timer that reduces risk of starting into a backspin		87, 88	All	All	3RP2025-1AQ30 3RP2025-1AP30					
 Hole Plug	Covers the hole that is typically used for the conduit hub		87	All	1-4	49D41149006					

Illustration	Description	Contactor	Wire Size	Catalogue Number
 3RT1966-4G	Lug Kit 1 Kit = 1 Terminal block. 1 kit necessary for each line and load.	NEMA size 4 (Vacuum) NEMA size 5 NEMA size 6	2/0 to 600 MCM, max. one 500MCM & one 600MCM	3RT1966-4G

② Surge Suppression for NEMA sizes 5-8 are supplied internal with the coil. For size 4 panel mount.

③ Only 3 lugs are supplied for line or load. If lugs for line and load are required order 2 kits.

④ Lug Kit for contactors include 3 lugs for line or load. 75D35994001 for line side. 75D35994002 for load side.

Field Modification Kits

NEMA Accessories

Selection

Fused and Non-Fused Disconnect Switch Kits (Includes load base plus line and load fuse clips)

	Basic Switch Ampere Rating	Switch Catalogue Number Non-Fused	Switch Catalogue Number Fused	Kit Description	Load Base Catalogue Number Class J	Load Base Catalogue Number Class H ³	Lug Wire Size
	30	HNB612	HFB21	30A, 250V	—	HBB21	#14-2 AWG (Cu/Al)
			HFB612	30A, 600V	HBB612	HBB612	
	60	HNB623	HFB22	60A, 250V	—	HBB22	#14-2 AWG (Cu/Al)
			HFB62	60A, 600V	HBB62	HBB62	
	100	HNB623	HFB63	100A, 250V	—	HBB63	#14-1/0 AWG (Cu/Al)
				100A, 600V	HBB63		
	200	HNB64	HFB64	200A, 250V	—	HBB64	#6-300 AWG (Cu/Al)
				200A, 600V	HBB64		

Class R Fuse Conversion Kits

	Catalogue Number	Description
	HR21	30A, 240V
	HR612	30A, 600V
	HR612	60A, 240V
	HR62	60A, 600V
	HR63	100A, 240/600V
	HR64	200A, 240/600V

Hazardous Location Accessories For Enclosure Types 7 & 9

	Description	Conduit Size Inches	Catalogue Number
	Install in bottom as drain. Install in top as breather. Suitable for Class I groups C & D and for Class II groups F & G applications only. For 1/2" NPT.	—	51AADB
	For tapered NPT conduit openings.	1/2 3/4 1 1 1/2 2 2 1/2	51AAHA 51AAHB 51AAHC 51AAHD 51AAHE 51AAHF
	Cast aluminum, UL Recognized and CSA Certified. Used to reduce existing tapered NPT conduit opening when required.	3/4-1/2 1-1/2 1 1/2-3/4 1 1/2-1	51AARBA 51AARCA 51AARDB 51AARDC
		2 1/2-3/4 2 1/2-1 2 1/2-1 1/2 2 1/2-2	51AARFB 51AARFC 51AARFD 51AARFE
		3-1 3-1 1/2 3-2 3-2 1/2	51AARGC 51AARGD 51AARGE 51AARGF

Conduit Hubs

Description	Conduit Size	Class	Controller Size	Enclosure Type	Catalogue Number
	3/4 1 1 1/2 2 2 1/2	All	All	12, 3, 3R, 4	49MACML 49MACMD 49MACMN 49MACMF 49MACMG
	1 1 1/2 2 2 1/2	87	All	3R	75D41149001 75D41149003 75D41149004 75D41149005

③ For Class R fuses order Class H kit from this table and the Class R conversion kit.

Factory Modifications

ESP200 Starter Accessories

Selection

Ordering Information

- ▶ All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added.
- ▶ Catalogue Number Suffixes indicate numbers or letters added to the end of a catalogue number. Example: 14DUE32BA becomes 14DUE32BAA1.

Pilot Devices

Description	Modification	Class	Enclosure Type	Suffix
Push Buttons	Start, Stop	14, 17, 18, 36, 37, 40, 83, 84, CLM, CM, LE	All	A1
	Forward, Reverse, Stop	22, 25, 26, 43	All ^①	A2
	High, Low, Stop	30, 32	All	
	E-Stop	14, 17, 18, 22 ^① , 25, 26, 30 ^① , 32, 36, 37, 40 ^① , 43 ^①	All ^①	ES
	Test Push Buttons	83, 84	All	K1
Selector Switches	Hand-Off-Auto	14, 17, 18, 36, 37, 40, 83, 84, LE	All	A3
		CM, CLM	All	
	For 24 volt HOA control, 20 Amp contactor only	CM, CLM	1	EM
	Off-On	14, 17, 18, 22, 25, 26, 30, 32, 36, 37, 40, 43, 83, 84, CLM, CM, LE	All	A4
	Auto-Off	14, 17, 18, 40, 83, 84, CM, CLM, LE	All ^①	A6
	Forward-Off-Reverse	22, 25, 26, 43	All	A5
	High-Off-Low	30, 32	All	
	Hand-Off-Auto (Keyed)	14, 17, 18, 36, 37, 40, 83, 84, LE, CLM, CM	All ^①	A9
	Auto-Off-Low-High	30, 32	All ^①	A0

Pilot Lights

Class	Enclosure Type	Lens Colour ☐	Red	Green	Red	Green	Red	Green	Amber	White	Red Push-To-Test	Green Push-To-Test	Green Push-To-Test
		Legend ☐	On For/Rev Low/High		Run		Off		OL Tripped	Control Power On	On For/Rev Low/High		Off
14, 40, 17, 18, 36, 37, 87, 88, LE, CLM, CM	All	Suffix ☐	FA	FB	FC	FD	FJ	FK	FL ^④	FW ^①	FS ^①	FT ^①	FU ^①
22, 25, 26, 30, 32, 43, 83, 84	All												

Coil Options

Class 14, 17, 18, 22, 25, 26, 30, 32, 40, 43, 83 ^⑤ , 84 ^⑤ , 87, 88		
Volts 60 HZ	Volts 50 HZ	Coil Letter Change
24 Separate Control	24	J
120 Separate Control	110	F
110-120/220-240	110/190-220	A
200-208	—	D
220-240	190-220	G
277	240	L
220-240/440-480	190-220/380-440	C
440-480	380-440	H
575-600	550	E
DC Coil ^③	24V	S ^⑥
	48V	U
	125V	V
	250V	W

AC (50-60 HZ) or DC	Coil Letter Change
23-26V	J
42-48V	U
110-127V	F
200-220V	D
220-240V	G
240-277V	L
380-420V	K
440-480V	H
575-600V	E

Miscellaneous Options

	Class	Change the 92 to
Omit Alternator (deduct)	83, 84	95
Duplex with Separate Relay Alternation	83, 84	93
Duplex with lead pump transfer switch	83, 84	94

① Not Available on Class 14, 40, 22, 43, 30 (size 00-4) and Class LE, CLM (20-30amp) NEMA 1 clamshell enclosures.

② DC coils include 1 NC, late break aux. contact. This aux. contact takes up one side of the starter (00-4 only).

③ Price x 2 for Classes 22, 25, 26, 30, 32, 43, 83, 84.

④ Bimetal OL - Size 00 - 2^{1/2} available. Solid-state OL - Size 00 - 4, 7 & 8 available.

⑤ For Class 83, 84 standard enclosure (92) alternating relay available in 24V or 120V control only.

⑥ S coil is not available for size 4 contactors or starters.

⑦ Class 83 and 84 only.

Factory Modifications

ESP200 Starter Accessories

Selection

Ordering Information		Transformer Table		
► Replace (*) with letter from Transformer Table. ► Prices shown are additions to standard equipment prices as listed in the catalog and are not to be used as separate selling prices. All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added. ► PCatalog Number Suffixes indicate numbers or letters added to the end of a catalogue number. Example: 14DUE32BA becomes 14DUE32BABB.		Primary Volts	Secondary Volts	Letter
		120	24	B
		208	24	S
		208	120	T
		240	24	J
		240	120	F
		277	24	N
		277	120	P
		380	110	U
		415	100	W
		480	240	R
		480/240	24	D
		480/240	120	A
		600	24	E
		600	120	C

Control Power Transformers

Description	Catalogue No Suffix	Product Class	Enclosure Type
Standard Capacity ^① with 1-Secondary Fuse	B*	14, 17, 18, 22, 25, 26, 30, 32, 40, 43, 83 ^② , 84 ^③ , 87	1, 3, 4, 12 7 & 9
Standard Capacity with 2-Primary and 1-Secondary Fuse	D*	14, 17, 18, 22, 25, 26, 30, 32, 40, 43, 83 ^② , 84 ^③ , 87, LE, CLM, CM	1, 3, 4, 12 7 & 9
100VA Extra Capacity with 2-Primary and 1-Secondary Fuse	C*	14, 17, 18, 22, 25, 26, 30, 32, 40,	1, 3, 4, 12
		43, 83 ^② , 84 ^③ , 87, LE, CLM, CM	7 & 9
		36, 37, 88	All
150VA Extra Capacity with 2-Primary and 1-Secondary Fuse	C*1	14, 17, 18, 22, 25, 26, 30, 32, 40, 43, 83 ^② , 84 ^③ , 87, LE, CLM, CM	1, 3, 4, 12
		36, 37, 88	All

← Lighting & Heating Ratings (Amps)
← Motor Controller Size

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NEMA
DEVICES

Factory Assembled Fuse Clips-Class 25, 32, 84^④

Fuse Clip Amps	Volts	Rejection Clip Suffix ^{②③}
30	250	10
30	600	11
60	250	12
60	600	13
100	250	14
100	600	15
200	250	16
200	600	17
400	250	18
400	600	19
600	250	20
600	600	21
800	600	23
1600	600	25

Note: Factory will furnish the same voltage coils as transformer secondary voltage (except with class 36,37).

① The standard control transformer supplied for starter sizes 0 through 2¹/₂ will be rated 45VA and have the appropriate secondary fuse. Primary fuses will not be supplied as standard. For primary fuse option select appropriate suffix from table.

② For ESP100 styles add the rejection clip suffix to the end of the base style catalog number. For thermal styles add the rejection clip suffix immediately before the 81 in the part number.

③ For Class J fuse clips, add suffix "DJ".

④ Class 84 Duplex Controllers require two fusible disconnects thus multiply the price adder by two.

⑤ Price x 2 Class 83 and 84.

⑥ For 24VAC control a minimum of 100VA CPT required.

Factory Modifications

ESP200 Starter Accessories

Selection

Ordering Information

- Prices shown are additions to standard equipment prices as listed in the catalog and are not to be used as separate selling prices. All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added.
- Catalogue Number Suffixes indicate numbers or letters added to the end of a catalog number. Example: 14DUE32BA becomes 14DUE32BAG01.

Additional Auxiliary Contacts

Description	NO Contacts	NC Contacts	Catalogue Number Suffix
14, 17, 18, 40, 83 ^③ , 84 ^③	—	1	G01
	—	2	G02
	1	—	G10
	1	1	G11
	1	2	G12
	2	—	G20
	2	1	G21
	2	2	G22
	2	3	G23
	3	1	G31
	3	2	G32
	3	3	G33
	4	—	G40
	4	1	G41
	4	2	G42
	4	4	G44
22, 25, 26, 43 & 30, 32 (2-winding)	5	—	G50
	5	1	G51
	5	3	G53
	6	—	G60
	6	2	G62
30, 32 (1-winding)	7	1	G71
	8	—	G80
	—	2	G02
	2	—	G20 ^①
	2	2	G22 ^①
LE, CLM, CM	4	0	G40 ^①
	4	4	G44 ^①
	6	2	G62 ^①
	8	0	G80 ^①
	0	2	G02 ^①
CLM, CM	2	—	G20 ^①
	2	2	G22 ^①
	4	—	G40 ^①
	4	4	G44 ^①
	6	2	G62 ^①
CLM, CM	8	—	G80 ^①
	0	2	G02 ^①
	2	0	G20 ^①
CLM, CM	2	2	G22 ^①

Overload Options

Class 14, 17, 18, 22, 25, 26, 30, 32, 36, 37				
Description	Trip Class	Phase	Contacts	Catalogue Number Suffix
Ambient Compensated Bimetal	Class 10 or 20 (K or E heaters)	3-Phase or Single Phase	NO & NC, SPDT NC	91 81
ESP200	Class 5, 10, 20, 30 selectable	3-Phase or Single Phase	NC	N/A
3RB200 (Sz 5-6)	Class 10 Class 20	3-Phase	NC	51 —

① Auxiliary contacts will be added evenly across contactors. (i.e. Class 22, G02 suffix will add 2 NC contacts (one per contactor)).

② Double the price addition for Class 30 and 32.

③ For class 83 and 84 contacts will be added to both starters. Price x 2.

Factory Modifications

ESP200 Starter Accessories

Selection

Ordering Information			
► Prices shown are additions to standard equipment prices as listed in the catalog and are not to be used as separate selling prices. All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added. ► Catalogue Number Suffixes indicate numbers or letters added to the end of a catalog number. Example: 14DUE32BA becomes 14DUE32BAA1.			

Control Options

Description	Class	Enclosure Type	Catalogue Number Suffix
Lighting Control Modules	CLM 20 Amp	All	2W, 3W, 3WS
Surge Suppression for 120V AC Coil ^④	14, 17, 18, 22, 25, 26, 30, 32, 36, 37, 83, 84, 87, 88	All	SS
Disconnect Switch Interlock 2 NO/2 NC DPDT	17, 25, 32, 37, 84, CM, LE	1, 3, 4, 4X, 12	GY
Motor Circuit Protector Interlock NO/NC SPDT	18, 26, 32, 37, 84, CM, LE	All	GY
Lightning Arrestor	All	All	L
Circuit Breaker Shunt Trip	18, 26, 32, 37, 84, 87, 88, CM, LE	All	L6
Circuit Breaker Undervoltage Trip	18, 26, 32, 37, 84, 87, 88, CM, LE	All	L7
Circuit Breaker Alarm Switch Trip	18, 26, 32, 37, 84, 87, 88, CM, LE	All	L8
NO alarm aux contact for ESP OL ^②	14, 17, 18, 22, 25, 26, 30, 32, 36, 37, 83, 84, 87, 88	All	L9
Ground Lug - 1 Conductor	All	All	L10
Control Circuit Fuse and Holder (Transformer Primary Fusing)	All	All	F1 (1 fuse) F2 (2 fuses)
Control Circuit Circuit Breaker Internally Operated	All ^①	All	F4
Space Heater (120V separate control)	All ^①	All	SH
Space Heater with Thermostat (120V separate control)	All ^①	All	ST
Surge Capacitor	87, 88	All	SC
Alarm Package (includes horn, light, relay & push-button)	83, 84, 87, 88	All	M7
Backspin Protection	87,88	All	T5
Minimum Run Timer 0.2 sec. - 3 mins.	87,88	All	T6
Blown Fuse Indicator Light	17, 25, 32, 37, 84, 87, 88, CM, LE	All	L11
Single Phase 120VAC Combination Starter	17, 18	All	Z1 ^③
Single Phase 240VAC Combination Starter	17, 18	All	Z1 ^③

Reversing Options

Description	Class	Catalogue Number Suffix
Reversing in one speed only 2 speed 1 winding	30, 32	R6
Reversing in one speed only 2 speed 2 winding		R7
Reversing in both speeds 2 speed 1 winding		R8
Reversing in both speeds 2 speed 2 winding		R9
Reversing for Reduced Voltage	36, 37	R

Enclosure Options Class 36, 37

Class	Enclosure Type	Change the 8th character of the Catalogue Number to:
36	NEMA 12/3R ^①	N
37	NEMA 4 (Painted)	E
37	NEMA 4 (Stainless Steel)	W

Enclosure Options Class 14, 17, 18

Class	Enclosure Type	Change the 7th character of the Catalogue Number to:	Change the 8th character of the Catalogue Number to:
14	NEMA 4/4X (316 Stainless Steel)	x	x
14 (Extra Wide)		x	x
17 & 18		x	x

- ① Supplied as NEMA 12, field convertible to NEMA 3R.
 ② For bimetal OL, order cat. no. with "91" suffix.
 ③ Specify the single phase voltage when ordering.
 ④ Surge Suppression for NEMA sizes 5-8 are supplied internal with the coil.

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NEMA
DEVICES

Factory Modifications

ESP200 Starter Accessories

Selection

Ordering Information	
► Prices shown are additions to standard equipment prices as listed in the catalog and are not to be used as separate selling prices. All modifications will consist of Siemens standard components as available. Standard equipment dimensions and enclosure construction may not apply when certain modifications and special features are added. ► Catalogue Number Suffixes indicate numbers or letters added to the end of a catalog number. Example: 14DUE32BA becomes 14DUE32BAR40.	

Control Relays

Description	Class	Enclosure Type	Suffix
Control Relay ^① 4-Poles Max	4 NO 2 NO/2 NC 4 NC	All	1, 3, 4, 7, 9, 12
Under Voltage, Phase Failure, Phase Sequence, Phase Unbalance (460V) Under Voltage, Phase Failure, Phase Sequence, Phase Unbalance (230V) Under Voltage, Phase Failure, Phase Sequence, Phase Unbalance (575V)	All	1, 3, 4, 7 & 9, 12	R1 ^④ R2 ^④ R4 ^④
Ground Fault Relay	All		R5
Electronic On Delay Relay (.15s–100h) 24V/120V ^① Electronic On Delay Relay (.15s–100h) 24V/240V ^{①②} Electronic Off Delay Relay (.15s–100s) 120V ^① Electronic Off Delay Relay (.15s–100s) 240V ^{①②}	All	1, 3, 4, 7, 9, 12	T1 T2 T3 T4
24 hour time clock 24 hour time clock with day omission 7 day time clock	LE, CLM, CM	All	T7 T8 T9
Compelling Relay	30, 32	1, 4, 12	A6 A7 A8
Acceleration Control			
Deceleration Control			

Meters-Mounted on Enclosure

Description	Class	Enclosure Type	Suffix
Ammeter (includes a C.T. if necessary) Ammeter and Switch (3-Phase with 3 C.T.'s) Voltmeter Voltmeter and Switch (3-Phase) Elapsed Time Meter ^② Wattmeter	14 ^④ , 17, 18, 22 ^④ , 25, 26, 36, 37, 40 ^④ , 43 ^④ , 83, 84	1, 12	M1 M2 M3 M4 M5 M6

Function Identification Plates

Description	Class	Suffix
Function Identification Plates, with markings as specified	All	N1

Terminal Blocks^①

Description	Class	Suffix
3 Point Terminal 6 Point Terminal 9 Point Terminal	All	T3 ^⑤ T6 ^⑤ T9 ^⑤

Special Ratings

Description	Class	Suffix
Service Entrance Rating	17, 18, 25, 26, 32, 37, 84, 87	N3

① Supplied mounted and unwired.

② Not available on Class 36, 37.

③ Price x 2 Class 83 and 84.

④ ETM available with 120V coil only.

⑤ For terminal point more than 9 terminals use additional suffixes. Max 3 suffixes can be selected.

⑥ Available 3-Phase only.

Replacement Parts

NEMA Starters and Contactors - AC Coils

Selection

Ordering Information

► 4th character of starter or contactor catalog number indicates model.

AC Coils - For Class 14, 17, 18, 22, 25, 26, 30, 32, 36, 37, 40, 43, 83, 84, 87, 88

	Size	Model	Volts		Catalogue Number
			60Hz	50Hz	
	00-2 ¹ / ₂	P U (ESP200)	24 120 110-120/220-240 208 220-240 277 220-240/440-480 440-480 575-600	24 110 110/190-220 — 190-220 240 190-220/380-440 380-440 550	75D73070J 75D73070F 75D73070A 75D73070D 75D73070G 75D73070L 75D73070C 75D73070H 75D73070E
	3, 3 ¹ / ₂	P U (ESP200)	24 120 110-120/220-240 208 220-240 277 220-240/440-480 440-480 575-600	24 110 110/190-220 — 190-220 240 190-220/380-440 380-440 550	75D73251J 75D73251F 75D73251A 75D73251D 75D73251G 75D73251L 75D73251C 75D73251H 75D73251E
	4	G U (ESP200)	24 120 120/220-240 208 220-240 277 220-240/440-480 440-480 575-600	24 110 110/190-220 — 190-220 240 190-220/380-440 380-440 550	75D70131J 75D70131F 75D70131A 75D70131D 75D70131G 75D70131L 75D70131C 75D70131H 75D70131E
	4, 5	V (Vacuum)	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	3RT1966-5AB31 3RT1966-5AF31 3RT1966-5AM31 3RT1966-5AP31 3RT1966-5AU31 3RT1966-5AV31 3RT1966-5AR31 3RT1966-5AT31
	5	P	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	3RT1965-5AB31 3RT1965-5AF31 3RT1965-5AM31 3RT1965-5AP31 3RT1965-5AU31 3RT1965-5AV31 3RT1965-5AR31 3RT1965-5AT31
	6	P V (Vacuum)	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	23-26 110-127 200-220 220-240 240-277 380-420 440-480 575-600	3RT1975-5AB31 3RT1975-5AF31 3RT1975-5AM31 3RT1975-5AP31 3RT1975-5AU31 3RT1975-5AV31 3RT1975-5AR31 3RT1975-5AT31
	7	H	100-250 150-500	100-250 150-500	75ZAF750-70 75ZAF750-71
	8	H	100-250	100-250	75ZAF1650-70

© Set of 2 coils. Recommend to change printed circuit board when changing coils. **49ZP1650**

Replacement Parts

Starters and Contactors - DC Coils, Late Break Aux Contacts, Rectifiers, Contact Kits *Selection*

Ordering Information

- ▶ 4th character of starter or contactor catalog number indicates model.
- ▶ DC Coils for Size 00-4 require Late Break Interlock..

DC Coils - For Class 14, 17, 18, 22, 25, 26, 30, 32, 40, 43

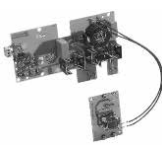
	Size	Model	Volts DC	Catalogue Number
	00-2 ^{1/2}	P S (ESP 100)	24 48 125 250	75D73070S 75D73070U 75D73070V 75D73070W
	3, 3 ^{1/2}	P S (ESP 100)	24 48 125 250	75D73251S 75D73251U 75D73251V 75D73251W
	4	G T (ESP 100)	48 125 250	75D70131U 75D70131V 75D70131W
	4, 5	V (Vacuum)	23-26 42-48 110-127 240-277	3RT1966-5AB31 3RT1966-5AD31 3RT1966-5AF31 3RT1966-5AU31

Note: For sizes 7 & 8 contactors the AC coils are used for DC .

Late Break Auxiliary Contacts

	Control Size	Model	Catalogue Number
	00-4	P, G, S, T	49AB01LB

Board for Size 8 Contactor

	Control Size	Model	Catalogue Number
	8	H	49ZP1650

Contact Kits - Single Pole Stationary and Movable Contacts, Contact Spring^③

	Size	Number of Poles in Kit	Model (4th position in part number)	Catalogue Number
	Internal Aux Contact (00-1-3/4) 00 0		P, S P, S P, S	75AF14 75BF14 75CF14
	1 1 ^{3/4} -1P	1	P, S P, S	75DF14 75EF14
	2	1	P, S	75FP14
	2 ^{1/2}	1	P, S	75GP14
	3 3 ^{1/2}	1	P, S P, S	75HF14 75IF14
	4 4 (Vacuum)	1 3 (Bottles)	G, T V, C	75JG14 3RT1964-6V
	5 5 (Vacuum)	3 3 (Bottles)	P V, C	3RT1966-6A 3RT1966-6V
	6 6 (Vacuum)	3 3 (Bottles)	P V, C	3RT1976-6A 3RT1976-6V
	14, 40	7 8	H H	49ZL750 49ZL1650

③ On 3-phase controls, all 3-poles should be replaced - 3 kits required.