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NEMA Full Voltage Power Devices 300-Line Starters

Section 1

Application Information and Technical Data

| Description | Maximum Horsepower NEMA Size | | | | | | | | | | |
|---|------------------------------|-------|-------|-------|--------|--------|------------------|------------------|-------------------|-------------------|-------------------|
| | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Normal Starting Duty HP Rating¹ | | | | | | | | | | | |
| Single Phase | | | | | | | | | | | |
| 115V 60Hz | 1/3 | 1 | 2 | 3 | 7 1/2 | NA | NA | NA | NA | NA | NA |
| 230V 60Hz | 1 | 2 | 3 | 7 1/2 | 15 | NA | NA | NA | NA | NA | NA |
| Three Phase | | | | | | | | | | | |
| 200V 60Hz | 1 1/2 | 3 | 7 1/2 | 10 | 25 | 40 | 75 | 150 | | | |
| 230V 60Hz | 1 1/2 | 3 | 7 1/2 | 15 | 30 | 50 | 100 | 200 | 300 | 450 | 800 |
| 380-415V 50Hz | 1 1/2 | 5 | 10 | 25 | 50 | 75 | 150 | 300 | 500 | 750 | 1350 |
| 460V 60Hz | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 400 | 600 | 900 | 1600 |
| 575V 60Hz | 2 | 5 | 10 | 25 | 50 | 100 | 200 | 400 | 600 | 900 | 1600 |
| Plugging or Jogging HP Rating¹ | | | | | | | | | | | |
| Single Phase | | | | | | | | | | | |
| 115V 60Hz | NA | 1/2 | 1 | 2 | 5 | NA | NA | NA | NA | NA | NA |
| 230V 60Hz | NA | 1 | 2 | 5 | 10 | NA | NA | NA | NA | NA | NA |
| Three Phase | | | | | | | | | | | |
| 200V 60Hz | NA | 1 1/2 | 3 | 7 1/2 | 15 | 25 | 60 | 125 | NA | NA | NA |
| 230V 60Hz | NA | 1 1/2 | 3 | 10 | 20 | 30 | 75 | 150 | NA | NA | NA |
| 380-415V 50Hz | NA | 1 1/2 | 5 | 15 | 30 | 50 | 125 | 250 | NA | NA | NA |
| 460V 60Hz | NA | 2 | 5 | 15 | 30 | 60 | 150 | 250 | NA | NA | NA |
| 575V 60Hz | NA | 2 | 5 | 15 | 30 | 60 | 150 | 250 | NA | NA | NA |
| Continuous Current Max | | | | | | | | | | | |
| Starters and Enclosed Contactors | 9 | 18 | 27 | 45 | 90 | 135 | 270 | 540 | 810 | 1215 | 2250 |
| Open Contactors | 10 | 20 | 30 | 50 | 100 | 150 | 300 | 600 | 900 | 1350 | 2500 |
| Coil Burden (VA) | | | | | | | | | | | |
| Inrush 2-Pole | 151 | 151 | 151 | 528 | 1152 | 1248 | 2580 | 3360 | 1600 | 1500 | 2900 |
| Holding 2-Pole | 24 | 24 | 24 | 60 | 83 | 87 | 191 | 255 | 210 | 140 | 300 |
| Inrush 3-Pole | 151 | 151 | 151 | 528 | 1152 | 1248 | 2580 | 3360 | 1600 | 2900 | 3600 |
| Holding 3-Pole | 24 | 24 | 24 | 60 | 83 | 87 | 191 | 255 | 210 | 300 | 400 |
| Inrush 4- and 5-Pole | 151 | 151 | 151 | 576 | 1248 | 1356 | 3600 | NA | NA | NA | NA |
| Holding 4- and 5-Pole | 24 | 24 | 24 | 75 | 87 | 95 | 276 | NA | NA | NA | NA |
| Control Power Transformer VA (Min) | 50 | 50 | 50 | 100 | 200 | 250 | 500 ² | 500 ² | 1000 ² | 1500 ² | 1501 ² |
| Coil Operating Voltage | | | | | | | | | | | |
| % Minimum Pickup | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| % Maximum Dropout | 63 | 63 | 63 | 68 | 65 | 65 | 65 | 65 | 50 | 50 | 50 |
| Switching Delay 3-Pole | | | | | | | | | | | |
| Pickup Typical (Milliseconds) | 15-30 | 15-30 | 15-30 | 20-40 | 20-45 | 20-45 | 30-50 | 30-50 | 60-90 | 80-125 | 80-125 |
| Dropout Typical (Milliseconds) | 7-15 | 7-15 | 7-15 | 7-15 | 7-15 | 7-15 | 15-25 | 15-25 | 100-150 | 25-100 | 25-100 |
| Mechanical Life Millions Nominal | 20 | 20 | 20 | 10 | 5 | 5 | 5 | 1 | 1 | 1 | 0.5 |
| Weight (Less Carton) | | | | | | | | | | | |
| Contactors (Pounds) | 2 3/4 | 2 3/4 | 2 3/4 | 6 1/2 | 15 | 14 3/4 | 48 | 48 | 79 | 203 | 302 |
| Starter (Pounds) | 3 3/4 | 3 3/4 | 3 3/4 | 7 1/2 | 17 3/4 | 17 1/2 | 53 | 75 | 106 | 263 | 365 |
| Power Terminals | | | | | | | | | | | |
| Wire Size Range (75 DEG) AWG | 14-8 | 14-8 | 14-8 | 14-4 | 10-1/0 | 8-3/0 | 1/0-500kcmil | 2 2/0-500kcmil | 3 2-600kcmil | 4 2-600kcmil | NA |
| Torque (Pounds-Inches) | 20 | 20 | 20 | 50 | 150 | 200 | 300 | 375 | 500 | 500 | NA |
| Max. Noise (DBA) | 50 | 50 | 50 | 50 | 50 | 50 | 65 | 65 | 65 | 65 | 65 |

¹ When operation of the controller requires jogging (inching) or plug stopping or when normal operation requires continued operation in excess of 5 operations per minute or 10 operations in a 10-minute period, the plugging or jogging horsepower ratings must be followed.

² In lieu of a 500 to 1500 VA control transformer, a 50 VA unit in conjunction with a control relay can be used as follows:

- Wire control relay coil in control circuit on secondary side of control transformer.
- Wire two poles of control relay in series with contactor coil at line voltage.

Mounting Position

Devices must be mounted to a sturdy vertical surface with the line side terminals up. No other orientations are permitted.

Operating Temperature

Equipment is designed for ambient temperature outside of equipment enclosures to be -25° to 40°C. When contactor is energized, temperatures will be above outside ambient in equipment

enclosures. Temperature rises inside the enclosures should be limited so that internal air temperature does not exceed 65° for sizes 00 to 6 and 60°C for sizes 7 to 9. If condensing moisture is present, space heater kits should be used to prevent condensation when contactor is not energized.

Storage temperature should be -30° to 65°C. If equipment is stored over 1 week, it may be necessary to cover the equipment and provide a source of heat to prevent condensation.



Product Number Selection Instructions: See page 1-8

NEMA Full Voltage Power Devices

300-Line Starters

Section 1

Application Information and Technical Data

Short-Circuit Ratings

Fusible forms of combination magnetic starters equipped with UL labeled, nonrenewable, NEC-type fuses listed in the table below, are adequate for installation on motor branch circuits where the available short-circuit current at the incoming line terminals of the starter does not exceed the value shown.

Circuit breaker-type combination magnetic starters equipped with the circuit breakers listed in the table at right are adequate for installation on motor branch circuits where the available short-circuit current at the incoming line terminals of the starter does not exceed the value shown.

For either type, it is recognized that maintenance of some components may be required after a branch circuit fault and in some cases a device may require replacement.

Fusible Combination Starters

| NEMA Size | Fuse Type | Maximum Symmetrical rms Amperes |
|-----------|------------------|---------------------------------|
| 0-3 | H, K | 5,000 |
| 4, 5 | H, K | 10,000 |
| 0-5 | J, RK-1, RK-5 | 100,000 |
| 6 | J, L, RK-1, RK-5 | 100,000 |

Circuit Breaker Combination Starters

Spectra™ RMS Molded Case Circuit Breaker or Spectra™ RMS Mag-Break Circuit Protector

| Breaker Model | NEMA Size | Maximum Symmetrical RMS Amperes | | |
|---------------|-----------|---------------------------------|--------|--------|
| | | 240V | 480V | 600V |
| SELA | 0 - 3 | 65,000 | 65,000 | 25,000 |
| SFLA | 4 | 65,000 | 65,000 | 25,000 |

Circuit Breaker Combination Starters

| Breaker Type | Rating Amperes | NEMA Size | Maximum Symmetrical RMS Amperes | | |
|--------------|----------------|-----------|---------------------------------|--------|--------|
| | | | 240V | 480V | 600V |
| TJJ & TJK | 225-600 | 5 | 10,000 | 10,000 | 10,000 |
| THJK | 225-400 | 5 | 35,000 | 35,000 | 25,000 |
| THJK | 450-600 | 5 | 10,000 | 10,000 | 10,000 |
| TKM, TKC | 300-800 | 6 | 42,000 | 30,000 | 22,000 |
| THKM8 | 300-800 | 6 | 65,000 | 35,000 | 25,000 |
| TB6, TBC | 300-800 | 6 | 65,000 | 65,000 | 42,000 |



NEMA Full Voltage Power Devices 300-Line Starters

Section 1

Application Information and Technical Data (Continued)

Control Transformers—Where to Use

It is often desirable to use a control transformer in conjunction with a magnetic starter or controller to provide low voltage control.

Description—Factory Wired

A transformer, with sufficient capacity for the control circuit, mounted with the starter can be supplied by the factory for the majority of transformer ratings and types of enclosures.

Coil Suffix

(THIS TABLE IS TO BE USED FOR STARTER FORMS WITHOUT CONTROL TRANSFORMERS.)

Indicates voltage and frequency of operating coils. For use in ordering full voltage starters and contactors, Sizes 00-6, with other coil ratings than those shown in listing on pages 1-9 to 1-122.

| Frequency (Hertz) | 24V | 115-120V ⁵ | 200-208V ⁵ | 230-240V ⁵ | 265-277V | 460-480V ⁵ | 575-600V ⁵ |
|-------------------|-----|-----------------------|-----------------------|-----------------------|----------|-----------------------|-----------------------|
| 60 | 24 | 02 | 23 | 03 | 13 | 04 | 05 |
| Frequency (Hertz) | — | 110V | — | 220V | 380-415V | 440V | 550V |
| 50 | — | 02 | — | 03 | 64 | 04 | 05 |

Note: The 02 coil suffix (115-120V, 60 Hz/110V, 50 Hz) supersedes the 22 coil suffix (120V, 60 Hz).

⁵ Suffix shown for this voltage is part of Product Number in magnetic starter-contactors listings.

Auxiliary Contact Ratings—NEMA Size 0-9

| AC Volts | Amperes | | |
|----------|------------|------|-------|
| | Continuous | Make | Break |
| 115 | 10 | 60 | 6.0 |
| 230 | 10 | 30 | 3.0 |
| 460 | 10 | 15 | 1.5 |
| 575 | 10 | 12 | 1.2 |
| DC Volts | | | |
| 125 | 10 | — | 1.1 |
| 250 | 10 | — | 0.5 |

Contactors DC Ratings

| NEMA Size | No. of Poles in Series | Continuous Current Rating | Interrupting Ratings | | | | | | | |
|-----------|------------------------|---------------------------|----------------------|------|----------------------|------|-------------------------|------|-------------------------|------|
| | | | Inductive Amps @125V | | Inductive Amps @250V | | Noninductive Amps @125V | | Noninductive Amps @250V | |
| | | | N.O. | N.C. | N.O. | N.C. | N.O. | N.C. | N.O. | N.C. |
| 00 | 1 | 9 | 2.5 | 2.5 | 0.6 | 0.5 | 5 | 4 | 1 | 0.8 |
| 00 | 2 | 9 | 7 | 7 | 1.2 | 1.2 | 25 | 25 | 5 | 4 |
| 00 | 3 | 9 | 14 | 14 | 3.5 | 3.5 | 35 | 35 | 15 | 15 |
| 00 | 4 | 9 | 25 | 25 | 7 | 7 | 50 | 50 | 50 | 50 |
| 0 | 1 | 18 | 2.8 | 2.5 | 0.7 | 0.5 | 6 | 4.5 | 1.1 | 0.9 |
| 0 | 2 | 18 | 7 | 7 | 1.5 | 1.2 | 35 | 25 | 6 | 4.5 |
| 0 | 3 | 18 | 14 | 14 | 3.5 | 3.5 | 50 | 35 | 25 | 25 |
| 0 | 4 | 18 | 25 | 25 | 7 | 7 | 90 | 60 | 60 | 55 |
| 1 | 1 | 27 | 3 | 2.5 | 0.7 | 0.5 | 6.5 | 4.5 | 1.2 | 0.9 |
| 1 | 2 | 27 | 7 | 7 | 1.5 | 1.2 | 50 | 25 | 7 | 4.5 |
| 1 | 3 | 27 | 14 | 14 | 3.5 | 3.5 | 70 | 35 | 35 | 25 |
| 1 | 4 | 27 | 25 | 25 | 7 | 7 | 120 | 60 | 70 | 55 |
| 2 | 2 | 45 | 7 | 7 | 1.5 | 1.2 | 60 | 45 | 9 | 7 |
| 2 | 3 | 45 | 14 | 14 | 3.5 | 3.5 | 120 | 60 | 40 | 30 |
| 2 | 4 | 45 | 25 | 25 | 7 | 7 | 160 | 80 | 80 | 60 |
| 3 | 2 | 90 | 7 | 7 | 2.2 | 1.8 | 600 | 300 | 300 | 200 |
| 3 | 3 | 90 | 14 | 14 | 4.5 | 3.5 | 600 | 300 | 600 | 300 |
| 3 | 4 | 90 | 25 | 25 | 9 | 7 | 600 | 300 | 600 | 300 |
| 4 | 2 | 135 | 7 | 7 | 2.2 | 1.8 | 600 | 300 | 300 | 200 |
| 4 | 3 | 135 | 14 | 14 | 4.5 | 3.5 | 600 | 300 | 600 | 300 |
| 4 | 4 | 135 | 25 | 25 | 9 | 7 | 600 | 300 | 600 | 300 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Nonreversing

1600 Horsepower Maximum

NEMA Sizes 00-9

600 Volts Maximum

50/60 Hertz

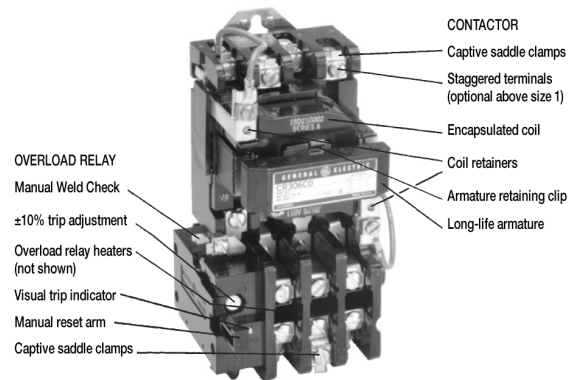
Basic 300-Line Features

GE's full voltage (600-Volt maximum) magnetic motor starter has an encapsulated coil and a 3-leg overload relay to protect against overloads in all phases. It is on standard specifications of major manufacturers. The line offers features and benefits most asked for by users.

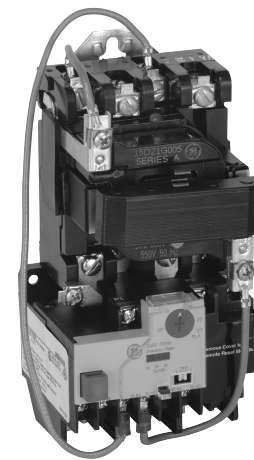
Forms available include reversing and nonreversing, two-speed, and combination, sizes 00-9.

- Toolless contactor disassembly (Sizes 00-4)**—allows quick access for inspection and maintenance. Just release two retainers and pull a clip to get at magnet, coil, and contacts.
- Saddle clamp terminals (Sizes 00-1)**—accommodate ring, spade, and stripped wire leads and carry permanent stamped-in identification. Staggered arrangement makes wiring easier and helps prevent shorting between phases.
- Current-carrying components**—contact tips are weld-resistant silver cadmium oxide (fine silver on sizes 00 and 0 only). Contacts are installed in a wedge configuration for positive make with minimum bounce.
- Optional PF capacitor terminals**—permit easy connection of power factor correction capacitors between contactor and overload relay for energy conservation.
- Class 20 overload protection.**
- Visual trip indicator with manual reset**—to avoid surprise restarts. Reset occurs on arm upstroke so a tripped condition can't be overridden by holding the arm down.
- Manual weld check**—provides a convenient test against welding of overload relay contacts. Just depress the weld check operator to trip the relay, run a simple continuity test across the relay contacts, then depress the manual reset to return the starter to service.
- Optional Isolated NO contact on the overload relay**—provides means of direct interface with programmable controller or computer to monitor performance and diagnose faults.
- Dual bimetals**—anticipate overloads, responding to rising current and temperature with faster tripping on severe overloads for better motor protection. Trip points are factory-calibrated for accuracy.
- ±10% trip adjustment**—by turning a dial in the overload relay face allows "tuning" the protection to the motor on the spot.
- Largest selection of modifications and accessory kits**—includes auxiliary contacts, coils, fifth-pole addition, vertical and horizontal mechanical interlocks, surge suppressors, control circuit fusing, NEMA Type enclosures, push buttons, selector switches, indicating lights, control transformers, space heaters, and more.

Section 1



Typical Size 1 Motor Starter



CR306 Size 1 Motor Starter with Solid-State Overload Relay installed

Technical Features — Solid-State Overload

- 2:1 Adjustable full load amps with tactile feedback dial
- Selectable 10/20/30 protection class
- Ambient insensitive within the stated operating temperature range of -20° to +70°C
- Built-in thermal memory to prevent hot motor restarts
- Protection against complete phase current loss
- Manual reset (standard) and remote reset (optional) 120 VAC
- Accuracy: ± 2%
- Repeatability: ± 2%
- Self-powered @ 50% of minimum current range
- Size: 1-6 (0.40A-540A, 600V, 50/60 Hz)
- Unbalance trip signal for PLC operation
- Manual trip
- Visual trip indication
- Standard isolated 1 NO and 1 NC aux. contact (A600, Q600)
- Built-in line/load straps
- Fits with existing 300-Line Starters
- Power factor correction terminals (sizes 1-4)
- DIN rail mountable sizes 1 & 2



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Nonreversing, Non-combination
 NEMA Sizes 00-9 with Thermal Overload Relay
 600 Volts Maximum 50/60 Hertz

Application

GE's magnetic motor starters listed here may be used for starting full-voltage, nonreversing, single-speed ac motors up to 1600 horsepower, 600 Volts maximum, providing protection to the motor against running or stalled overloads.

Their compact size and ease of wiring make them especially suitable for motor control centers, custom-type control panels, and switchgear equipment. Refer to page 1-7 for features of basic starter.

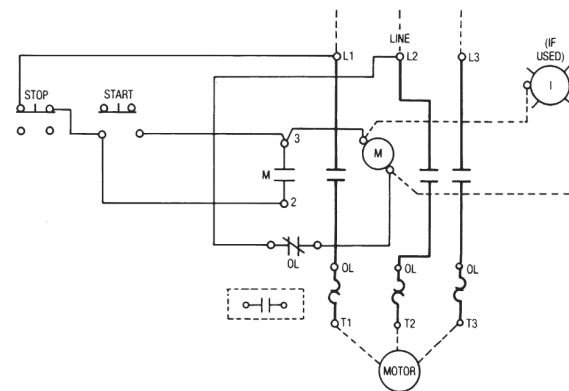
Product Number Selection Instructions

- Specify starter by complete Product Number.
 Example: CR306C103 is a Size 1 starter with 230-240-Volt, 60-Hertz coil and in Type 1 general-purpose enclosure @ **\$246.00, GO-10G**.
- The final letter of the Product Number denotes extra auxiliary contacts (sometimes referred to as auxiliary interlocks). Order the desired extra auxiliary contacts by replacing the final letter with one from first column of auxiliary interlock table (see page 1-134).
 Example: CR306C103AAB is Size 1 starter with one extra normally open, auxiliary contact @ **\$312.00, GO-10G**.
- Starter forms are available with coils of other ratings than those shown on pages 1-9 to 1-10. Refer to coil suffix table, page 1-8 for information. To order forms with other coil ratings, insert suffix from coil table in place of fifth and sixth numbers of listed starter Product Number shown on pages 1-9 to 1-10. (Contact your nearest GE Representative for other available starter coils not shown in table.) Example: A CR306C102 NEMA Size 1, three-pole starter in Type 1 enclosure with 24-Volt, 60-Hertz coil becomes a CR306C124 Product Number.
- For continuous rated motors with a service factor of 1.15 to 1.25 select the heater with maximum motor Amperes equal to or immediately greater than the actual full-load current taken directly from the nameplate of motor. Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159. **List Price \$9.00 each, GO-10H**. Packaged in quantities of three; must be ordered in multiples of three.
- Order special modifications or forms not listed by complete description using a listed Product Number as reference.
 Example: Similar to CR306C104 except with 480/120-Volt control transformer and red indicating light in cover.
 Total **List Price** **\$483.00, GO-10G**.
- Two-phase, four-wire forms are available. Contact nearest GE Representative for pricing and ordering information.
- Standard Coil Ratings**
 Standard Voltages (60 Hertz): 24, 115-120, 200-208, 230-240, 265-277, 460-480 and 575-600
 Standard Voltages (50 Hertz): 110, 220, 380, 440 and 550
 For price adders on special voltage and/or frequency coils, refer to page 1-126.
- 50-Hertz Starters**
 Pricing of starters for use on 50 Hertz at standard voltages is the same as shown in table for 60 Hertz. Refer to page 1-4 for three-phase horsepower ratings at 380 Volts, 50 Hertz.

Section 1



Typical CR306 Size 4 magnetic motor starter



Typical Schematic Diagram for CR306 Starter (NEMA Sizes 00-6)

9. Product Notes

Motor full-load current should not exceed continuous ampere rating of starter.

Reference Publications

| Instructions | Publication Number |
|--------------------|--------------------|
| NEMA Size 00, 0, 1 | GEH-5190 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |
| 7-9 | GEH-5108 |

CR306, CR386 Magnetic Starters - Contents

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Other Coil Voltages: See page 1-6
 Factory Installed Modifications: See pages 1-124 to 1-131

Field Installed Modifications: See pages 1-132 to 1-138
 Extra Auxiliary Contacts: See pages 1-132 to 1-134
 Heater Selection Tables: See pages 1-153 to 1-159

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 00-9 with Thermal Overload Relay
 600 Volts Maximum 50/60 Hertz

Three-Phase

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. One NO isolated contact on the overload relay is available as an option at **\$24.00, GO-10G**. To order add suffix LAA to Product Numbers (Size 00-5) listed in table.

Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. List price **\$9.00 each, GO-10H**.

CR306, Three-Phase Magnetic Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|---------------------------------------|----------------------------|------------|----------------|------------|-------------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|
| | | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| 00 | 9 | Separate Control—115-120 V | | A002 | \$162.00 | A102 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9 | 200-208 | 1 1/2 | A023 | \$162.00 | A123 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9 | 230-240 | 1 1/2 | A003 | \$162.00 | A103 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9 | 460-480 | 2 | A004 | \$162.00 | A104 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9 | 575-600 | 2 | A005 | \$162.00 | A105 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 0 | 18 | Separate Control—115-120 V | | B002 | \$204.00 | B102 | \$216.00 | B602 | \$288.00 | B202 | \$288.00 | B402 | \$426.00 |
| 0 | 18 | 200-208 | 3 | B023 | \$204.00 | B123 | \$216.00 | B623 | \$288.00 | B223 | \$288.00 | B423 | \$426.00 |
| 0 | 18 | 230-240 | 3 | B003 | \$204.00 | B103 | \$216.00 | B603 | \$288.00 | B203 | \$288.00 | B403 | \$426.00 |
| 0 | 18 | 460-480 | 5 | B004 | \$204.00 | B104 | \$216.00 | B604 | \$288.00 | B204 | \$288.00 | B404 | \$426.00 |
| 0 | 18 | 575-600 | 5 | B005 | \$204.00 | B105 | \$216.00 | B605 | \$288.00 | B205 | \$288.00 | B405 | \$426.00 |
| 1 | 27 | Separate Control—115-120 V | | C002 | \$234.00 | C102 | \$246.00 | C602 | \$318.00 | C202 | \$318.00 | C402 | \$462.00 |
| 1 | 27 | 200-208 | 7 1/2 | C023 | \$234.00 | C123 | \$246.00 | C623 | \$318.00 | C223 | \$318.00 | C423 | \$462.00 |
| 1 | 27 | 230-240 | 7 1/2 | C003 | \$234.00 | C103 ² | \$246.00 | C603 | \$318.00 | C203 | \$318.00 | C403 | \$462.00 |
| 1 | 27 | 460-480 | 10 | C004 | \$234.00 | C104 | \$246.00 | C604 | \$318.00 | C204 | \$318.00 | C404 | \$462.00 |
| 1 | 27 | 575-600 | 10 | C005 | \$234.00 | C105 | \$246.00 | C605 | \$318.00 | C205 | \$318.00 | C405 | \$462.00 |
| 2 | 45 | Separate Control—115-120 V | | D002 | \$426.00 | D102 | \$486.00 | D602 | \$618.00 | D202 | \$618.00 | D402 | \$918.00 |
| 2 | 45 | 200-208 | 10 | D023 | \$426.00 | D123 | \$486.00 | D623 | \$618.00 | D223 | \$618.00 | D423 | \$918.00 |
| 2 | 45 | 230-240 | 15 | D003 | \$426.00 | D103 | \$486.00 | D603 | \$618.00 | D203 | \$618.00 | D403 | \$918.00 |
| 2 | 45 | 460-480 | 25 | D004 | \$426.00 | D104 | \$486.00 | D604 | \$618.00 | D204 | \$618.00 | D404 | \$918.00 |
| 2 | 45 | 575-600 | 25 | D005 | \$426.00 | D105 | \$486.00 | D605 | \$618.00 | D205 | \$618.00 | D405 | \$918.00 |
| 3 | 90 | Separate Control—115-120 V | | E002 | \$690.00 | E102 | \$810.00 | E602 | \$966.00 | E202 | \$966.00 | E402 | \$1422.00 |
| 3 | 90 | 200-208 | 25 | E023 | \$690.00 | E123 | \$810.00 | E623 | \$966.00 | E223 | \$966.00 | E423 | \$1422.00 |
| 3 | 90 | 230-240 | 30 | E003 | \$690.00 | E103 | \$810.00 | E603 | \$966.00 | E203 | \$966.00 | E403 | \$1422.00 |
| 3 | 90 | 460-480 | 50 | E004 | \$690.00 | E104 | \$810.00 | E604 | \$966.00 | E204 | \$966.00 | E404 | \$1422.00 |
| 3 | 90 | 575-600 | 50 | E005 | \$690.00 | E105 | \$810.00 | E605 | \$966.00 | E205 | \$966.00 | E405 | \$1422.00 |
| 4 | 135 | Separate Control—115-120 V | | F002 | \$1578.00 | F102 | \$1830.00 | F602 | \$2346.00 | F202 | \$2346.00 | F402 | \$2874.00 |
| 4 | 135 | 200-208 | 40 | F023 | \$1578.00 | F123 | \$1830.00 | F623 | \$2346.00 | F223 | \$2346.00 | F423 | \$2874.00 |
| 4 | 135 | 230-240 | 50 | F003 | \$1578.00 | F103 | \$1830.00 | F603 | \$2346.00 | F203 | \$2346.00 | F403 | \$2874.00 |
| 4 | 135 | 460-480 | 100 | F004 | \$1578.00 | F104 | \$1830.00 | F604 | \$2346.00 | F204 | \$2346.00 | F404 | \$2874.00 |
| 4 | 135 | 575-600 | 100 | F005 | \$1578.00 | F105 | \$1830.00 | F605 | \$2346.00 | F205 | \$2346.00 | F405 | \$2874.00 |
| 5 | 270 | Separate Control—115-120 V | | G002 | \$3855.00 | G102 | \$4317.00 | G602 | \$5637.00 | G202 | \$5637.00 | G402 | \$5637.00 |
| 5 | 270 | 200-208 | 75 | G023 | \$3855.00 | G123 | \$4317.00 | G623 | \$5637.00 | G223 | \$5637.00 | G423 | \$5637.00 |
| 5 | 270 | 230-240 | 100 | G003 | \$3855.00 | G103 | \$4317.00 | G603 | \$5637.00 | G203 | \$5637.00 | G403 | \$5637.00 |
| 5 | 270 | 460-480 | 200 | G004 | \$3855.00 | G104 | \$4317.00 | G604 | \$5637.00 | G204 | \$5637.00 | G404 | \$5637.00 |
| 5 | 270 | 575-600 | 200 | G005 | \$3855.00 | G105 | \$4317.00 | G605 | \$5637.00 | G205 | \$5637.00 | G405 | \$5637.00 |
| 6 | 540 | Separate Control—115-120 V | | HH002 | \$9165.00 | HH102 | \$12165.00 | HH602 | \$13785.00 | HH202 | \$13785.00 | HH402 | \$15165.00 |
| 6 | 540 | 200-208 | 150 | HH023 | \$9165.00 | HH123 | \$12165.00 | HH623 | \$13785.00 | HH223 | \$13785.00 | HH423 | \$15165.00 |
| 6 | 540 | 230-240 | 200 | HH003 | \$9165.00 | HH103 | \$12165.00 | HH603 | \$13785.00 | HH203 | \$13785.00 | HH403 | \$15165.00 |
| 6 | 540 | 460-480 | 400 | HH004 | \$9165.00 | HH104 | \$12165.00 | HH604 | \$13785.00 | HH204 | \$13785.00 | HH404 | \$15165.00 |
| 6 | 540 | 575-600 | 400 | HH005 | \$9165.00 | HH105 | \$12165.00 | HH605 | \$13785.00 | HH205 | \$13785.00 | HH405 | \$15165.00 |

CR386 Three-Phase Magnetic Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage | Horsepower | Control Circuit Voltage | Open Type | |
|-----------|---------------------------------------|----------------------------|------------|-------------------------|----------------|------------|
| | | | | | Product Number | List Price |
| 7 | 810 | Separate Control—115-120 V | | | J002AA1A | \$13167.00 |
| 7 | 810 | 220-240 | 300 | 230 | J003AA1A | \$13167.00 |
| 7 | 810 | 440-480 | 600 | 460 | J004AA1A | \$13167.00 |
| 7 | 810 | 550-600 | 600 | 575 | J005AA1A | \$13167.00 |
| 8 | 1215 | Separate Control—115-120 V | | | K002AA1A | \$19455.00 |
| 8 | 1215 | 220-240 | 450 | 230 | K003AA1A | \$19455.00 |
| 8 | 1215 | 440-480 | 900 | 460 | K004AA1A | \$19455.00 |
| 8 | 1215 | 550-600 | 900 | 575 | K005AA1A | \$19455.00 |
| 9 | 2250 | Separate Control—115-120 V | | | L002AA1A | \$31983.00 |
| 9 | 2250 | 220-240 | 800 | 230 | L003AA1A | \$31983.00 |
| 9 | 2250 | 440-480 | 1600 | 460 | L004AA1A | \$31983.00 |
| 9 | 2250 | 550-600 | 1600 | 575 | L005AA1A | \$31983.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.

²Units are individually boxed and "Poly-Packed" six per carton as standard.



Enclosure Descriptions: See Section 12

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 00-9 with Thermal Overload Relay
 600 Volts Maximum 50/60 Hertz

Single-Phase

List price includes a holding interlock. One heater (per starter) for sizes 00-2 and two heaters (per starter) for size 3 should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR306, Single-Phase Magnetic Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|---------------------------------------|---------|------------|----------------|------------|----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|
| | | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | | | | CR306 | GO-10G | CR306 | GO-10G | CR306 | GO-10G | CR306 | GO-10G | CR306 | GO-10G |
| 00 | 9 | 115-120 | 1/3 | H002 | \$162.00 | H102 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9 | 230-240 | 1 | H003 | \$162.00 | H103 | \$174.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 0 | 18 | 115-120 | 1 | J002 | \$183.00 | J102 | \$195.00 | J602 | \$267.00 | J202 | \$267.00 | J402 | \$405.00 |
| 0 | 18 | 230-240 | 2 | J003 | \$183.00 | J103 | \$195.00 | J603 | \$267.00 | J203 | \$267.00 | J403 | \$405.00 |
| 1 | 27 | 115-120 | 2 | K002 | \$213.00 | K102 | \$225.00 | K602 | \$297.00 | K202 | \$297.00 | K402 | \$441.00 |
| 1 | 27 | 230-240 | 3 | K003 | \$213.00 | K103 | \$225.00 | K603 | \$297.00 | K203 | \$297.00 | K403 | \$441.00 |
| 1P | 36 | 115-120 | 3 | K002BMA | \$279.00 | K102BKA | \$291.00 | K602BKA | \$363.00 | K202BKA | \$363.00 | K402BKA | \$507.00 |
| 1P | 36 | 230-240 | 5 | K003BMA | \$279.00 | K103BKA | \$291.00 | K603BKA | \$363.00 | K203BKA | \$363.00 | K403BKA | \$507.00 |
| 2 | 45 | 115-120 | 3 | L002 | \$387.00 | L102 | \$447.00 | L602 | \$579.00 | L202 | \$579.00 | L402 | \$879.00 |
| 2 | 45 | 230-240 | 7 1/2 | L003 | \$387.00 | L103 | \$447.00 | L603 | \$579.00 | L203 | \$579.00 | L403 | \$879.00 |
| 3 | 90 | 115-120 | 7 1/2 | M002 | \$642.00 | M102 | \$762.00 | M602 | \$918.00 | M202 | \$918.00 | M402 | \$1374.00 |
| 3 | 90 | 230-240 | 15 | M003 | \$642.00 | M103 | \$762.00 | M603 | \$918.00 | M203 | \$918.00 | M403 | \$1374.00 |
| 3 | 90 | 460-480 | 25 | M004 | \$642.00 | M104 | \$762.00 | M604 | \$918.00 | M204 | \$918.00 | M404 | \$1374.00 |
| 3 | 90 | 575-600 | 25 | M005 | \$642.00 | M105 | \$762.00 | M605 | \$918.00 | M205 | \$918.00 | M405 | \$1374.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.



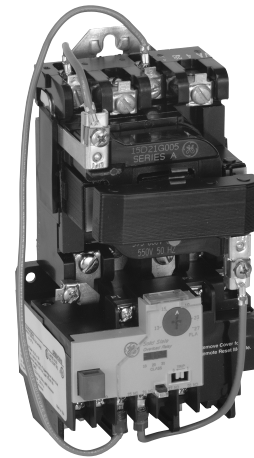
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306 Magnetic Starters

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 1-6 with Solid State Overload Relay
600 Volts Maximum 50/60 Hertz



CR306 Size 1 Motor Starter with Solid-State Overload Relay installed

Product Number Selection Instructions

1. 50 Hertz Starters

Pricing for 50-Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. Listed prices for 460-480 Volt also apply to 380-415 Volt, 50 Hertz. See page 1-4 for 380-415 Volt horsepower ratings.

2. Product Notes

Motor full-load current should not exceed continuous ampere rating of starter.

3. Note: Reversing, Two Speed, and Combination Starters are also available with Solid-State Overload Relays. Contact nearest GE Representative for more information.

4. Units are individually boxed and poly-packed six per carton as standard.

5. External reset not included on standard listed forms (NEMA Type 12).

6. For additional details on the Solid State Overload Relay, see pages 1-160 through 1-163.

Technical Features — Solid-State Overload

- 2:1 Adjustable full load amps with tactile feedback dial
- Selectable 10/20/30 protection class
- Ambient insensitive within the stated operating temperature range of -20° to +70°C
- Built-in thermal memory to prevent hot motor restarts
- Protection against complete phase current loss
- Manual reset (standard) and remote reset (optional) 120 VAC
- Accuracy: ± 2%
- Repeatability: ± 2%
- Self-powered @ 50% of minimum current range
- Size: 1-6 (0.40A-540A, 600V, 50/60 Hz)
- Unbalance trip signal for PLC operation
- Manual trip
- Visual trip indication
- Standard isolated 1 NO and 1 NC aux. contact (A600, Q600)
- Built-in line/load straps
- Fits with existing 300-Line Starters
- Power factor correction terminals (sizes 1-4)
- DIN rail mountable sizes 1 & 2

Reference Publications

| Instructions | Publication Number |
|--------------|--------------------|
| NEMA Size | |
| 00, 0, 1 | GEH-5190 |
| 1-6 | DEP-058 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |
| 7-9 | GEH-5108 |

CR306 Magnetic Starters – Contents

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NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306 Magnetic Starters

Nonreversing, Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 1-6 with Solid State Overload Relay
 600 Volts Maximum 50/60 Hertz

List price includes a holding interlock, pressure terminals for the line and load connections, plus a solid-state overload relay (manual reset). Standard isolated 1NO and 1NC auxiliary contact (A600, Q600).

Select current range from Full Load Current Selection Table. Insert letter (C, D, E, F, etc.) from table in Product Number to replace *.

Refer to Coil Table, page 1-6 for other available starter coils and suffixes (sizes 1-6).

CR306, Three-Phase Magnetic Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 ² | | NEMA Type 4/4X | |
|-----------|---------------------------------------|-----------------------------|------------|----------------|------------|---------------------|------------|----------------|------------|---------------------------|------------|----------------|------------|
| | | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| 1 | 27 | Separate Control — 115-120V | | CX*002 | \$261.00 | CX*102 | \$273.00 | CX*602 | \$345.00 | CX*202 ¹ | \$345.00 | CX*402 | \$489.00 |
| 1 | 27 | 200-208 | 7 1/2 | CX*023 | \$261.00 | CX*123 | \$273.00 | CX*623 | \$345.00 | CX*223 ¹ | \$345.00 | CX*423 | \$489.00 |
| 1 | 27 | 230-240 | 7 1/2 | CX*003 | \$261.00 | CX*103 ² | \$273.00 | CX*603 | \$345.00 | CX*203 ¹ | \$345.00 | CX*403 | \$489.00 |
| 1 | 27 | 460-480 | 10 | CX*004 | \$261.00 | CX*104 | \$273.00 | CX*604 | \$345.00 | CX*204 ¹ | \$345.00 | CX*404 | \$489.00 |
| 1 | 27 | 575-600 | 10 | CX*005 | \$261.00 | CX*105 | \$273.00 | CX*605 | \$345.00 | CX*205 ¹ | \$345.00 | CX*405 | \$489.00 |
| 2 | 45 | Separate Control — 115-120V | | DX*002 | \$453.00 | DX*102 | \$513.00 | DX*602 | \$645.00 | DX*202 ¹ | \$645.00 | DX*402 | \$945.00 |
| 2 | 45 | 200-208 | 10 | DX*023 | \$453.00 | DX*123 | \$513.00 | DX*623 | \$645.00 | DX*223 ¹ | \$645.00 | DX*423 | \$945.00 |
| 2 | 45 | 230-240 | 15 | DX*003 | \$453.00 | DX*103 | \$513.00 | DX*603 | \$645.00 | DX*203 ¹ | \$645.00 | DX*403 | \$945.00 |
| 2 | 45 | 460-480 | 25 | DX*004 | \$453.00 | DX*104 | \$513.00 | DX*604 | \$645.00 | DX*204 ¹ | \$645.00 | DX*404 | \$945.00 |
| 2 | 45 | 575-600 | 25 | DX*005 | \$453.00 | DX*105 | \$513.00 | DX*605 | \$645.00 | DX*205 ¹ | \$645.00 | DX*405 | \$945.00 |
| 3 | 90 | Separate Control — 115-120V | | EX*002 | \$717.00 | EX*102 | \$837.00 | EX*602 | \$993.00 | EX*202 ¹ | \$993.00 | EX*402 | \$1449.00 |
| 3 | 90 | 200-208 | 25 | EX*023 | \$717.00 | EX*123 | \$837.00 | EX*623 | \$993.00 | EX*223 ¹ | \$993.00 | EX*423 | \$1449.00 |
| 3 | 90 | 230-240 | 30 | EX*003 | \$717.00 | EX*103 | \$837.00 | EX*603 | \$993.00 | EX*203 ¹ | \$993.00 | EX*403 | \$1449.00 |
| 3 | 90 | 460-480 | 50 | EX*004 | \$717.00 | EX*104 | \$837.00 | EX*604 | \$993.00 | EX*204 ¹ | \$993.00 | EX*404 | \$1449.00 |
| 3 | 90 | 575-600 | 50 | EX*005 | \$717.00 | EX*105 | \$837.00 | EX*605 | \$993.00 | EX*205 ¹ | \$993.00 | EX*405 | \$1449.00 |
| 4 | 135 | Separate Control — 115-120V | | FX*002 | \$1605.00 | FX*102 | \$1857.00 | FX*602 | \$2373.00 | FX*202 ¹ | \$2373.00 | FX*402 | \$2901.00 |
| 4 | 135 | 200-208 | 40 | FX*023 | \$1605.00 | FX*123 | \$1857.00 | FX*623 | \$2373.00 | FX*223 ¹ | \$2373.00 | FX*423 | \$2901.00 |
| 4 | 135 | 230-240 | 50 | FX*003 | \$1605.00 | FX*103 | \$1857.00 | FX*603 | \$2373.00 | FX*203 ¹ | \$2373.00 | FX*403 | \$2901.00 |
| 4 | 135 | 460-480 | 100 | FX*004 | \$1605.00 | FX*104 | \$1857.00 | FX*604 | \$2373.00 | FX*204 ¹ | \$2373.00 | FX*404 | \$2901.00 |
| 4 | 135 | 575-600 | 100 | FX*005 | \$1605.00 | FX*105 | \$1857.00 | FX*605 | \$2373.00 | FX*205 ¹ | \$2373.00 | FX*405 | \$2901.00 |
| 5 | 270 | Separate Control — 115-120V | | GX*002 | \$3882.00 | GX*102 | \$4344.00 | GX*602 | \$5664.00 | GX*202 ¹ | \$5664.00 | GX*402 | \$5664.00 |
| 5 | 270 | 200-208 | 75 | GX*023 | \$3882.00 | GX*123 | \$4344.00 | GX*623 | \$5664.00 | GX*223 ¹ | \$5664.00 | GX*423 | \$5664.00 |
| 5 | 270 | 230-240 | 100 | GX*003 | \$3882.00 | GX*103 | \$4344.00 | GX*603 | \$5664.00 | GX*203 ¹ | \$5664.00 | GX*403 | \$5664.00 |
| 5 | 270 | 460-480 | 200 | GX*004 | \$3882.00 | GX*104 | \$4344.00 | GX*604 | \$5664.00 | GX*204 ¹ | \$5664.00 | GX*404 | \$5664.00 |
| 5 | 270 | 575-600 | 200 | GX*005 | \$3882.00 | GX*105 | \$4344.00 | GX*605 | \$5664.00 | GX*205 ¹ | \$5664.00 | GX*405 | \$5664.00 |
| 6 | 540 | Separate Control — 115-120V | | HX*002 | \$9192.00 | HX*102 | \$12192.00 | HX*602 | \$13812.00 | HX*202 ¹ | \$13812.00 | HX*402 | \$15192.00 |
| 6 | 540 | 200-208 | 150 | HX*023 | \$9192.00 | HX*123 | \$12192.00 | HX*623 | \$13812.00 | HX*223 ¹ | \$13812.00 | HX*423 | \$15192.00 |
| 6 | 540 | 230-240 | 200 | HX*003 | \$9192.00 | HX*103 | \$12192.00 | HX*603 | \$13812.00 | HX*203 ¹ | \$13812.00 | HX*403 | \$15192.00 |
| 6 | 540 | 460-480 | 400 | HX*004 | \$9192.00 | HX*104 | \$12192.00 | HX*604 | \$13812.00 | HX*204 ¹ | \$13812.00 | HX*404 | \$15192.00 |
| 6 | 540 | 575-600 | 400 | HX*005 | \$9192.00 | HX*105 | \$12192.00 | HX*605 | \$13812.00 | HX*205 ¹ | \$13812.00 | HX*405 | \$15192.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.

²External reset not included on standard listed forms.

Full Load Current Selection Table

For continuous rated motors, with a service factor of 1.15 to 1.25, select the heater with maximum motor Amperes equal to or immediately greater than the motor full-load current (provides a maximum of 125 percent protection). For continuous rated motors with no service factor, multiply the full-load current of the motor by 0.90 and use this value to select the heater.

| Overload Range for Solid State Starters | NEMA Size | Fuse Max. | Breaker Max. | Insert Digit in Product Number |
|---|-----------|-----------|--------------|--------------------------------|
| 0.4-0.85 | 00-1 | 3 | 15 | C |
| 0.8-1.7 | 00-1 | 6 | 15 | D |
| 1.6-3.4 | 00-1 | 12 | 15 | E |
| 3.2-6.8 | 00-1 | 25 | 25 | F |
| 6.5-13.5 | 00-1 | 50 | 50 | G |
| 13-27 | 00-1 | 100 | 100 | H |
| 6.5-13.5 | 2 | 50 | 50 | G |
| 13-27 | 2 | 100 | 100 | H |
| 25-50 | 2 | 200 | 200 | J |
| 17-35 | 3 & 4 | 125 | 125 | K |
| 35-70 | 3 & 4 | 250 | 250 | L |
| 65-135 | 3 & 4 | 500 | 400 | M |
| 35-70 | 5 | | | N |
| 65-135 | 5 | 500 | 400 | P |
| 130-270 | 5 | 600 | 800 | Q |
| 130-270 | 6 | 1200 | 800 | S |
| 260-540 | 6 | 1200 | 800 | T |



Other Coil Voltages: See page 1-6
 Factory Installed Modifications: See pages 1-124 to 1-131
 Field Installed Modifications: See pages 1-132 to 1-138

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

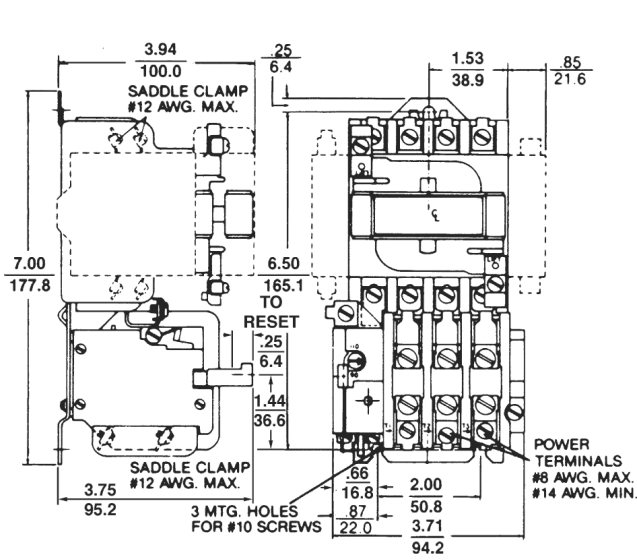
Nonreversing, Non-combination

200 Horsepower Maximum

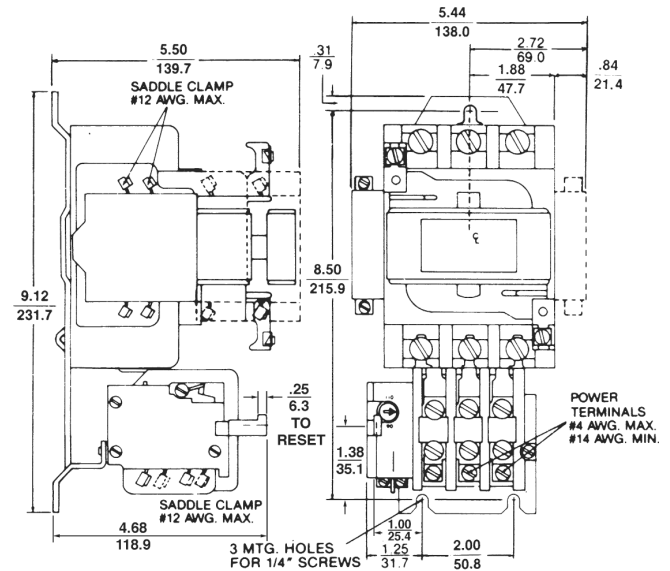
NEMA Sizes 00-5

600 Volts Maximum

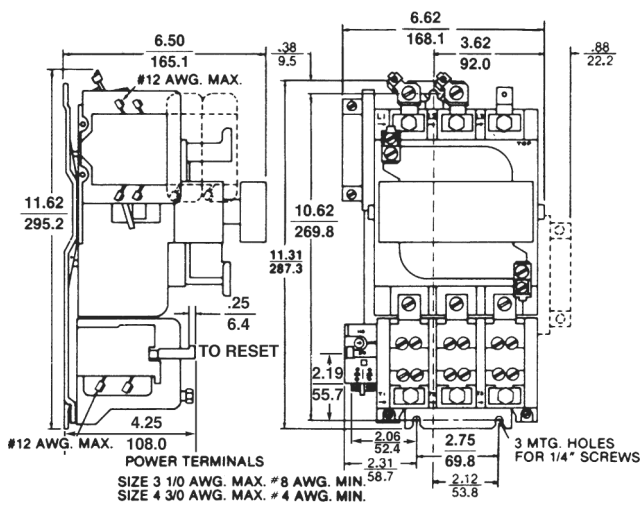
Outlines, Dimensions (in./mm) and Weights (For Estimating Only)



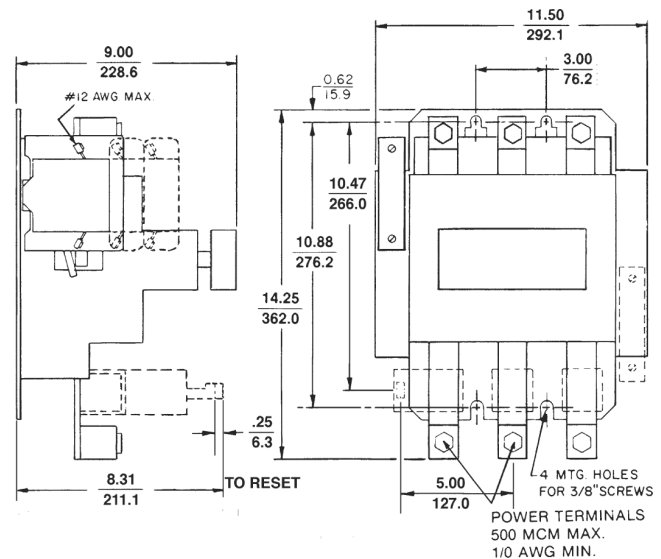
Open Type, NEMA Sizes 00-1 (3 3/4 lbs.)



Open Type, NEMA Size 2 (8 lbs.)



Open Type, NEMA Sizes 3 (19 lbs.) and 4 (20 lbs.)



Open Type, NEMA Size 5 (55 lbs.)



Enclosure Descriptions: See Section 12
Product Number Selection Instructions: See page 1-8

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

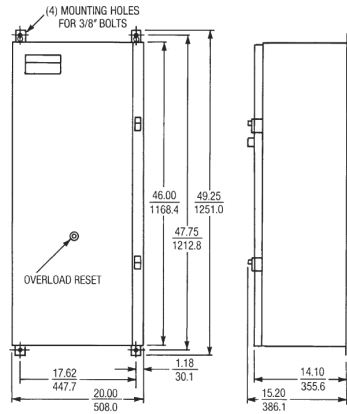
Nonreversing, Non-combination

200 Horsepower Maximum

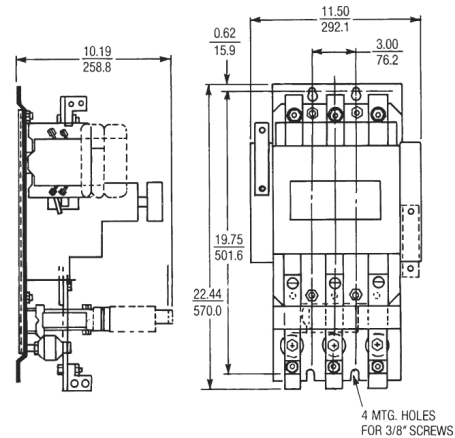
NEMA Sizes 00-5

600 Volts Maximum

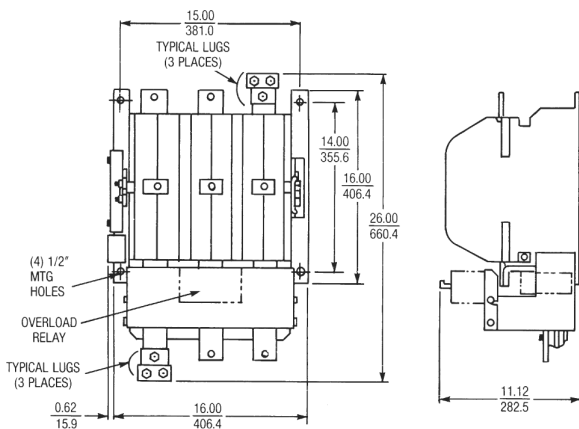
Outlines, Dimensions (in. and mm) and Weights (For Estimating Only)



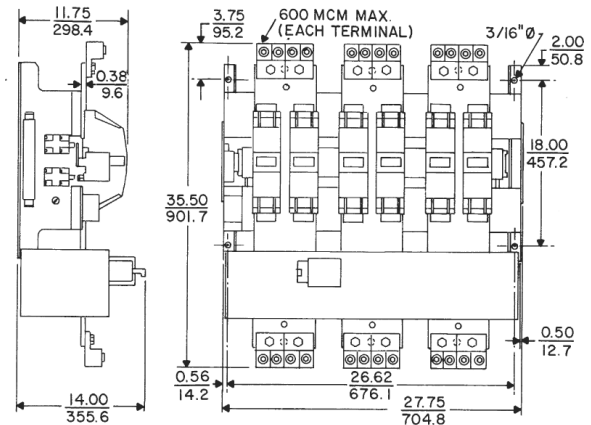
CR306 NEMA Type 1 and 12, Size 6



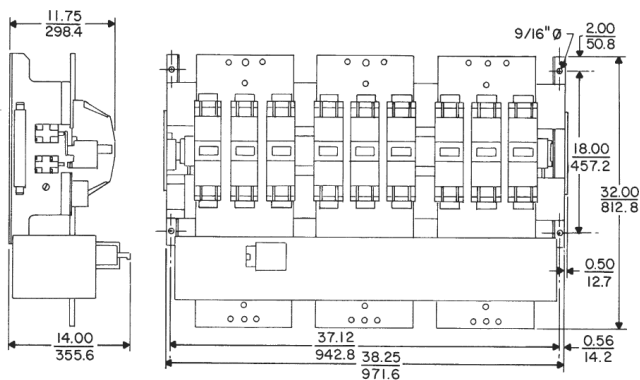
CR306 Open Type, NEMA Size 6



CR386 Open Type, NEMA Size 7, 115 lbs.



CR386 Open Type, NEMA Size 8



CR386 Open Type, NEMA Size 9



Product Number Selection Instructions: See page 1-8

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Section 1

Nonreversing, Non-combination

200 Horsepower Maximum

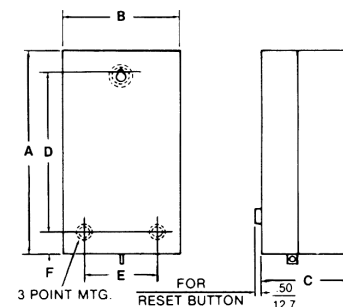
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions in. (mm) and Weights (For Estimating Only)

CR306 NEMA Type 1 NEMA Sizes 00-4

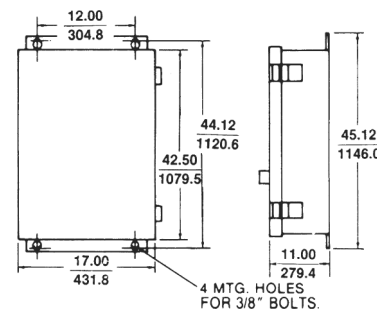
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Mounting Screw Size | Shipping Weight (lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|-------------|---------------------|-----------------------|
| 00, 0, 1 | 10.00 (254.0) | 6.00 (152.4) | 4.63 (117.6) | 8.00 (203.2) | 4.00 (101.6) | 1.00 (25.4) | #10 | 5 1/2 |
| 2 | 13.25 (336.6) | 7.38 (187.4) | 6.13 (155.6) | 11.00 (279.4) | 5.00 (127.0) | 1.13 (28.7) | 1/4" | 13 |
| 3 | 20.25 (514.4) | 8.75 (222.2) | 7.31 (185.7) | 17.00 (431.8) | 5.75 (146.0) | 1.88 (47.6) | 1/4" | 35 |
| 4 | 25.00 (635.0) | 8.75 (222.2) | 7.31 (185.7) | 22.00 (558.8) | 5.75 (146.0) | 1.50 (38.1) | 1/4" | 38 |



NEMA Type 1, Sizes 00-4

CR306 NEMA Type 1 NEMA Size 5

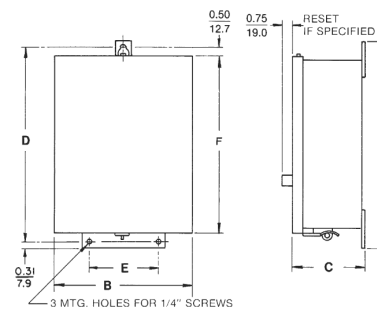
See Diagram For Dimensions



NEMA Type 1, Size 5 (134 lbs.)

CR306 NEMA Type 12 NEMA Sizes 0-2

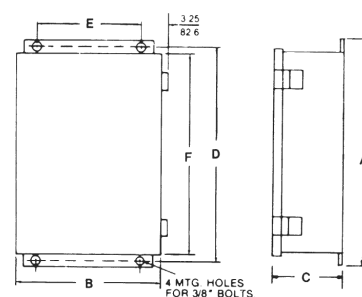
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|---------------|-----------------------|
| 0, 1 | 11.63 (295.4) | 6.25 (158.8) | 4.75 (120.6) | 11.00 (279.4) | 3.00 (76.2) | 10.25 (260.4) | 9 1/2 |
| 2 | 14.63 (371.6) | 7.63 (193.8) | 6.25 (158.8) | 14.00 (355.6) | 4.38 (111.2) | 13.25 (366.6) | 15 |



NEMA Type 12, Sizes 0-2

CR306 NEMA Type 12 NEMA Sizes 3-5

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|----------------|-----------------------|
| 3 | 24.00 (609.6) | 10.50 (266.7) | 7.25 (184.2) | 23.00 (584.2) | 5.75 (146.1) | 21.25 (539.8) | 43 |
| 4 | 30.00 (762.0) | 10.50 (266.7) | 7.25 (184.2) | 29.00 (736.6) | 5.75 (146.1) | 27.25 (692.2) | 48 |
| 5 | 45.50 (1155.7) | 17.00 (431.8) | 10.25 (260.4) | 44.50 (1130.3) | 12.00 (304.8) | 42.75 (1085.9) | 154 |



NEMA Type 12, Sizes 3-5



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR386 Magnetic Starters

Nonreversing, Non-combination

200 Horsepower Maximum

NEMA Sizes 00-5

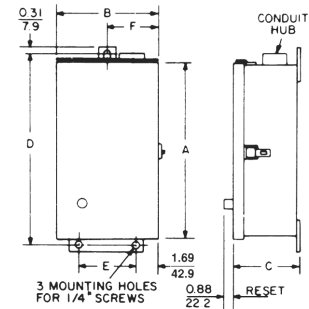
600 Volts Maximum

Outlines, Dimensions in. (mm) and Weights (For Estimating Only)

Section 1

CR306 NEMA Type 3R NEMA Sizes 00-2

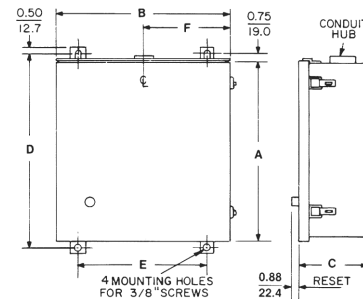
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|-------------|-----------------------|
| 0, 1 | 14.50 (368.3) | 6.38 (162.1) | 4.75 (120.6) | 15.00 (381.0) | 3.00 (76.2) | 3.19 (81.0) | 9 1/2 |
| 2 | 16.50 (419.1) | 7.75 (196.8) | 6.50 (165.1) | 17.00 (431.8) | 4.38 (111.2) | 3.88 (98.6) | 15 |



NEMA Type 3R, Sizes 00-2

CR306 NEMA Type 3R NEMA Sizes 3-5

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|--------------|-----------------------|
| 3 | 22.00 (558.8) | 17.19 (436.6) | 7.25 (184.2) | 23.50 (596.9) | 11.00 (279.4) | 8.6 (217.9) | 43 |
| 4 | 26.00 (660.4) | 17.19 (436.6) | 7.25 (184.2) | 27.50 (698.5) | 11.00 (279.4) | 8.6 (217.9) | 48 |
| 5 | 42.00 (1066.8) | 22.00 (558.8) | 10.25 (260.4) | 43.50 (1104.9) | 16.00 (406.0) | 11.0 (279.4) | 157 |



NEMA Type 3R, Sizes 3-5

CR306 NEMA Type 4/4X NEMA Sizes 0-5

| NEMA Size | Height | Width | Depth | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|-----------------------|
| 0, 1 | 15.62 (396.7) | 6.38 (162.0) | 4.75 (120.6) | 16 |
| 2 | 17.62 (447.5) | 7.75 (196.8) | 6.50 (165.1) | 20 |
| 3 | 24.50 (622.3) | 17.00 (431.8) | 7.25 (184.2) | 125 |
| 4 | 28.50 (723.9) | 17.00 (431.8) | 7.25 (184.2) | 132 |
| 5 | 44.50 (1130.3) | 22.00 (558.8) | 10.25 (260.4) | 135 |



Product Number Selection Instructions: See page 1-8

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Reversing Starters

600 Horsepower Maximum, Open, NEMA Type 1, 3R, 12, 4/4X
NEMA Sizes 00-7
600 Volts Maximum
50/60 Hertz

Application

These reversing starters are used for full-voltage starting and reversing of squirrel-cage induction motors up to 600 horsepower, 600 Volts maximum.

These starters are used for single-phase or polyphase motors on applications where plugging and/or reversing operations are required.

Refer to page 1-7 for features of basic starter.

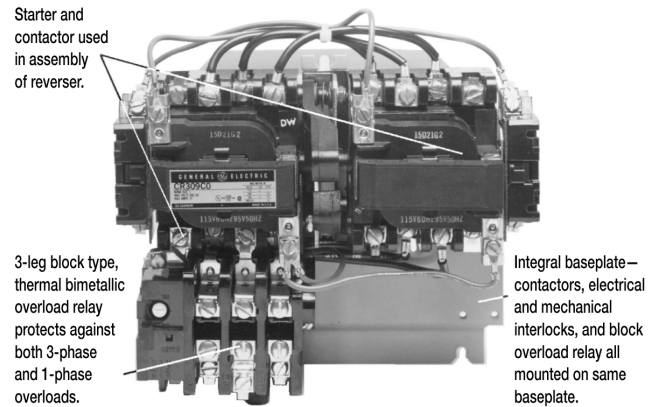
Jogging Duty

The horsepower ratings shown in the product tables for CR309 reversing starters are not to be used when operation requires continuous plug-stop or jogging (inching) duty at a rate in excess of five times per minute or 10 times in 10 minutes. Refer to page 1-4 for information.

Product Number Selection Instructions

- Specify by complete Product Number and form.
Example: CR309D103 is a Size 2 reversing starter, three-pole in NEMA Type 1 enclosure with 230-240-Volt, 60-Hertz coil @ **\$1086.00, GO-10G**.
- Order forms not listed or with special modifications by complete description using a listed Product Number as reference wherever possible.
Example: Similar to CR309D103 except with three-position FORWARD-REVERSE-STOP push button in cover.
Total **List Price** **\$1326.00, GO-10G**.
- Reversing starters are available with coils of other ratings than those shown in listing on pages 1-18 and 1-19. Refer to coil suffix table on page 1-4 for information. To order forms with other coil ratings, insert suffix from coil table in place of fifth and sixth numbers of listed starter Product Number shown on page 1-18 or 1-19.
Example: A CR309C102 NEMA Size 1 reverser in Type 1 enclosure with 24-Volt, 60-Hertz coil becomes a CR309C124.
- 50-Hertz Forms**
Pricing for 50-Hertz forms is the same as shown in tables for 60-Hertz reversing and combination reversing starters. Order by description using a listed Product Number as reference. Refer to page 1-4 for horsepower ratings of starters at 380-Volt, 50 Hertz.
- Starters Less Overload Relays**
CR309 open NEMA Types 1 and 3R reversing starters (with horizontal mechanical interlock) are available without overload relays. The following table shows omission prices to be deducted from those list prices as shown in tables on pages 1-18 and 1-19. Order desired form by adding the suffix, in parenthesis, to Product Number of Open, Types 1, 3R, 4/4X, and 12 forms shown in pricing table on pages 1-18 and 1-19, that include overload relays.
Example: To omit overload protection from a size 0 starter, Product Number CR309B103, order CR309B103BAA @ **\$456.00, GO-10G**

| List Price Deduction for Omission of Overload Relays and Suffix to Add to Product Number | | | | |
|--|------------|------------|-------------|-------------|
| Size 00, 0, 1 | Size 2 | Size 3 | Size 4 | Size 5 |
| \$30 (BAA) | \$54 (ALA) | \$90 (ALA) | \$144 (ALA) | \$504 (ALA) |



Typical CR309 Reversing Starter

6. Product Notes

Motor full-load current should not exceed continuous ampere rating of starter. External reset not included on standard listed forms (NEMA Type 12).

Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159.

Reference Publications

| Descriptive bulletin | GEA-10928 |
|----------------------|--------------------|
| Instructions | |
| NEMA Size | Publication Number |
| 00, 0, 1 | GEH-5190 |
| 2 | GEH-4775 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |

CR309 Magnetic Reversing Starters – Contents

| | |
|--|------|
| Application Information and Selection Instructions | 1-17 |
| Non-combination, NEMA Sizes 00-7 | |
| with Thermal Overload Relays, Three-Phase | 1-18 |
| Non-combination, NEMA Sizes 00-1 | |
| with Thermal Overload Relays, Single-Phase..... | 1-19 |
| Outlines and Dimensions | 1-20 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR309 Magnetic Reversing Starters

Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 00-7 With Thermal Overload Relay

600 Volts Maximum 50/60 Hertz

Three-Phase

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). One NO isolated contact on the overload relay is available as an option at **\$24.00, GO-10G**. To order add suffix LAA to Product Numbers listed in table for Enclosed types, and Open forms with horizontal mechanical interlock only. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection.

List price **\$9.00** each, **GO-10H**.

CR309, Three-Phase Magnetic Reversing Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage (60 Hz) | Horsepower | Open Type w/ Vertical Mechanical Interlock | | Open Type w/ Horizontal Mechanical Interlock | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 ³ | | NEMA Type 4/4X | |
|-----------|---------------------------------------|----------------------------|------------|--|------------|--|------------|----------------|------------|----------------|------------|---------------------------|------------|----------------|------------|
| | | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | | | | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G |
| 00 | 9 | Separate Control—115-120 V | | - | - | A002 | \$390.00 | A102 | \$414.00 | - | - | - | - | - | - |
| 00 | 9 | 200-208 | 1 1/2 | - | - | A023 | \$390.00 | A123 | \$414.00 | - | - | - | - | - | - |
| 00 | 9 | 230-240 | 1 1/2 | - | - | A003 | \$390.00 | A103 | \$414.00 | - | - | - | - | - | - |
| 00 | 9 | 460-480 | 2 | - | - | A004 | \$390.00 | A104 | \$414.00 | - | - | - | - | - | - |
| 00 | 9 | 575-600 | 2 | - | - | A005 | \$390.00 | A105 | \$414.00 | - | - | - | - | - | - |
| 0 | 18 | Separate Control—115-120 V | | B002CAA | \$462.00 | B002 | \$462.00 | B102 | \$486.00 | B602 | \$594.00 | B202 | \$594.00 | B402 | \$762.00 |
| 0 | 18 | 200-208 | 3 | B023CAA | \$462.00 | B023 | \$462.00 | B123 | \$486.00 | B623 | \$594.00 | B223 | \$594.00 | B423 | \$762.00 |
| 0 | 18 | 230-240 | 3 | B003CAA | \$462.00 | B003 | \$462.00 | B103 | \$486.00 | B603 | \$594.00 | B203 | \$594.00 | B403 | \$762.00 |
| 0 | 18 | 460-480 | 5 | B004CAA | \$462.00 | B004 | \$462.00 | B104 | \$486.00 | B604 | \$594.00 | B204 | \$594.00 | B404 | \$762.00 |
| 0 | 18 | 575-600 | 5 | B005CAA | \$462.00 | B005 | \$462.00 | B105 | \$486.00 | B605 | \$594.00 | B205 | \$594.00 | B405 | \$762.00 |
| 1 | 27 | Separate Control—115-120 V | | C002CAA | \$522.00 | C002 | \$522.00 | C102 | \$558.00 | C602 | \$666.00 | C202 | \$666.00 | C402 | \$942.00 |
| 1 | 27 | 200-208 | 7 1/2 | C023CAA | \$522.00 | C023 | \$522.00 | C123 | \$558.00 | C623 | \$666.00 | C223 | \$666.00 | C423 | \$942.00 |
| 1 | 27 | 230-240 | 7 1/2 | C003CAA | \$522.00 | C003 | \$522.00 | C103 | \$558.00 | C603 | \$666.00 | C203 | \$666.00 | C403 | \$942.00 |
| 1 | 27 | 460-480 | 10 | C004CAA | \$522.00 | C004 | \$522.00 | C104 | \$558.00 | C604 | \$666.00 | C204 | \$666.00 | C404 | \$942.00 |
| 1 | 27 | 575-600 | 10 | C005CAA | \$522.00 | C005 | \$522.00 | C105 | \$558.00 | C605 | \$666.00 | C205 | \$666.00 | C405 | \$942.00 |
| 2 | 45 | Separate Control—115-120 V | | D002AMA | \$990.00 | D002 | \$990.00 | D102 | \$1086.00 | D602 | \$1266.00 | D202 | \$1266.00 | D402 | \$1710.00 |
| 2 | 45 | 200-208 | 10 | D023AMA | \$990.00 | D023 | \$990.00 | D123 | \$1086.00 | D623 | \$1266.00 | D223 | \$1266.00 | D423 | \$1710.00 |
| 2 | 45 | 230-240 | 15 | D003AMA | \$990.00 | D003 | \$990.00 | D103 | \$1086.00 | D603 | \$1266.00 | D203 | \$1266.00 | D403 | \$1710.00 |
| 2 | 45 | 460-480 | 25 | D004AMA | \$990.00 | D004 | \$990.00 | D104 | \$1086.00 | D604 | \$1266.00 | D204 | \$1266.00 | D404 | \$1710.00 |
| 2 | 45 | 575-600 | 25 | D005AMA | \$990.00 | D005 | \$990.00 | D105 | \$1086.00 | D605 | \$1266.00 | D205 | \$1266.00 | D405 | \$1710.00 |
| 3 | 90 | Separate Control—115-120 V | | E002AMA | \$1644.00 | E002 | \$1644.00 | E102 | \$1812.00 | E602 | \$2208.00 | E202 | \$2208.00 | E402 | \$2736.00 |
| 3 | 90 | 200-208 | 25 | E023AMA | \$1644.00 | E023 | \$1644.00 | E123 | \$1812.00 | E623 | \$2208.00 | E223 | \$2208.00 | E423 | \$2736.00 |
| 3 | 90 | 230-240 | 30 | E003AMA | \$1644.00 | E003 | \$1644.00 | E103 | \$1812.00 | E603 | \$2208.00 | E203 | \$2208.00 | E403 | \$2736.00 |
| 3 | 90 | 460-480 | 50 | E004AMA | \$1644.00 | E004 | \$1644.00 | E104 | \$1812.00 | E604 | \$2208.00 | E204 | \$2208.00 | E404 | \$2736.00 |
| 3 | 90 | 575-600 | 50 | E005AMA | \$1644.00 | E005 | \$1644.00 | E105 | \$1812.00 | E605 | \$2208.00 | E205 | \$2208.00 | E405 | \$2736.00 |
| 4 | 135 | Separate Control—115-120 V | | F002AMA | \$4014.00 | F002 | \$4014.00 | F102 | \$4326.00 | F602 | \$4938.00 | F202 | \$4938.00 | F402 | \$5958.00 |
| 4 | 135 | 200-208 | 40 | F023AMA | \$4014.00 | F023 | \$4014.00 | F123 | \$4326.00 | F623 | \$4938.00 | F223 | \$4938.00 | F423 | \$5958.00 |
| 4 | 135 | 230-240 | 50 | F003AMA | \$4014.00 | F003 | \$4014.00 | F103 | \$4326.00 | F603 | \$4938.00 | F203 | \$4938.00 | F403 | \$5958.00 |
| 4 | 135 | 460-480 | 100 | F004AMA | \$4014.00 | F004 | \$4014.00 | F104 | \$4326.00 | F604 | \$4938.00 | F204 | \$4938.00 | F404 | \$5958.00 |
| 4 | 135 | 575-600 | 100 | F005AMA | \$4014.00 | F005 | \$4014.00 | F105 | \$4326.00 | F605 | \$4938.00 | F205 | \$4938.00 | F405 | \$5958.00 |
| 5 | 270 | Separate Control—115-120 V | | G002AMA | \$7713.00 | G002 | \$7713.00 | G102 | \$9519.00 | G602 | \$10839.00 | G202 | \$10839.00 | G402 | \$11631.00 |
| 5 | 270 | 200-208 | 75 | G023AMA | \$7713.00 | G023 | \$7713.00 | G123 | \$9519.00 | G623 | \$10839.00 | G223 | \$10839.00 | G423 | \$11631.00 |
| 5 | 270 | 230-240 | 100 | G003AMA | \$7713.00 | G003 | \$7713.00 | G103 | \$9519.00 | G603 | \$10839.00 | G203 | \$10839.00 | G403 | \$11631.00 |
| 5 | 270 | 460-480 | 200 | G004AMA | \$7713.00 | G004 | \$7713.00 | G104 | \$9519.00 | G604 | \$10839.00 | G204 | \$10839.00 | G404 | \$11631.00 |
| 5 | 270 | 575-600 | 200 | G005AMA | \$7713.00 | G005 | \$7713.00 | G105 | \$9519.00 | G605 | \$10839.00 | G205 | \$10839.00 | G405 | \$11631.00 |
| 6 | 540 | 440-600 | 400 | ² | \$18201.00 | - | - | ² | \$21201.00 | ² | \$22821.00 | ² | \$22821.00 | ² | \$24201.00 |
| 7 | 810 | 440-600 | 600 | ² | \$25803.00 | - | - | - | - | - | - | - | - | - | - |

¹Motor full load current should not exceed continuous ampere rating of the starter.

²Order by description giving complete data on motor being controlled, control circuit voltage, enclosure type and modifications desired.

³External reset not included on standard listed forms.



Other Coil Voltages: See page 1-6
 Factory Installed Modifications: See pages 1-124 to 1-131

Field Installed Modifications: See pages 1-132 to 1-138
 Extra Auxiliary Contacts: See pages 1-132 to 1-134
 Heater Selection Tables: See pages 1-153 to 1-159

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Reversing Starters

Section 1

Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 00-7 With Thermal Overload Relay
 600 Volts Maximum 50/60 Hertz

Single-Phase

For four-wire split phase or capacitor start induction motor (60 Hertz) overload protection.
 One heater should be ordered as a separate item. See pages 1-153 to 1-159 for selection.
List price \$9.00 each, GO-10H.

CR309, Single-Phase Magnetic Reversing Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 12 ² | | NEMA Type 4/4X ² | |
|-----------|---------------------------------------|---------|------------|----------------------|-------------------|----------------------|-------------------|---------------------------|-------------------|-----------------------------|-------------------|
| | | | | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G |
| 00 | 9 | 115-120 | 1/3 | A002AFA | \$375.00 | A102AFA | \$399.00 | - | - | - | - |
| 00 | 9 | 230-240 | 1 | A003AFA | \$375.00 | A103AFA | \$399.00 | - | - | - | - |
| 0 | 18 | 115-120 | 1 | B002BBA | \$447.00 | B102DAA | \$471.00 | B202DAA | \$579.00 | B402CCA | \$747.00 |
| 0 | 18 | 230-240 | 2 | B003BBA | \$447.00 | B103DAA | \$471.00 | B203DAA | \$579.00 | B403CCA | \$747.00 |
| 1 | 27 | 115-120 | 2 | C002FSA | \$507.00 | C102DAA | \$543.00 | C202ALA | \$651.00 | C402BXA | \$927.00 |
| 1 | 27 | 230-240 | 3 | C003FSA | \$507.00 | C103DAA | \$543.00 | C203ALA | \$651.00 | C403BXA | \$927.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.

²External reset not included on standard listed forms.



Product Number Selection Instructions: See page 1-17

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Reversing Starters

Section 1

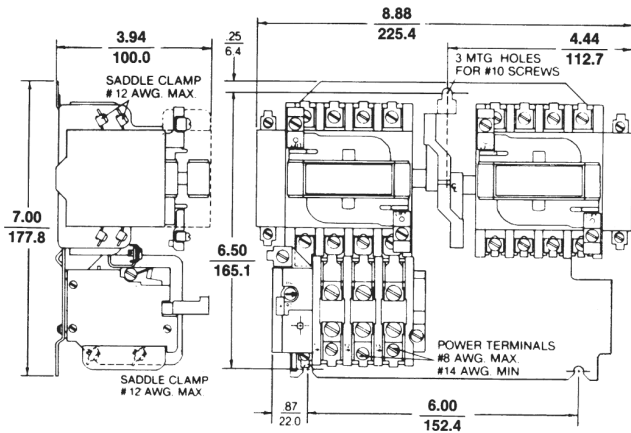
Non-combination

200 Horsepower Maximum

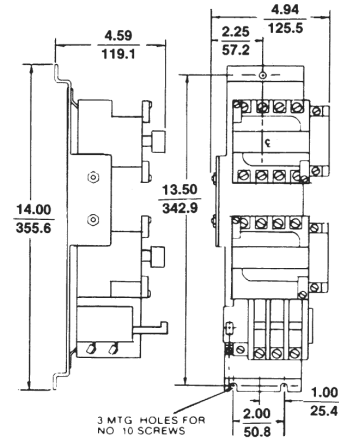
NEMA Sizes 00-5

600 Volts Maximum

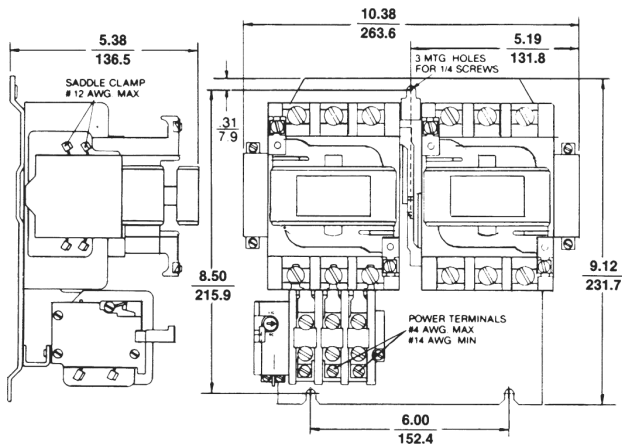
Outlines, Dimensions (in./mm), and Weights (For Estimating Only)



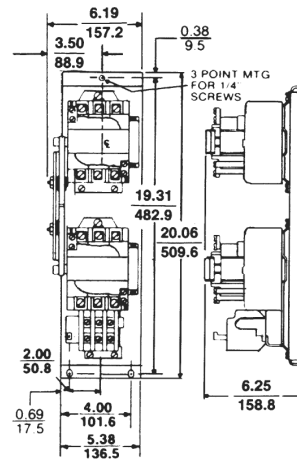
Open Type, NEMA Size 00, 0 and 1 Reversing (Horizontal); 7 3/4 lbs.



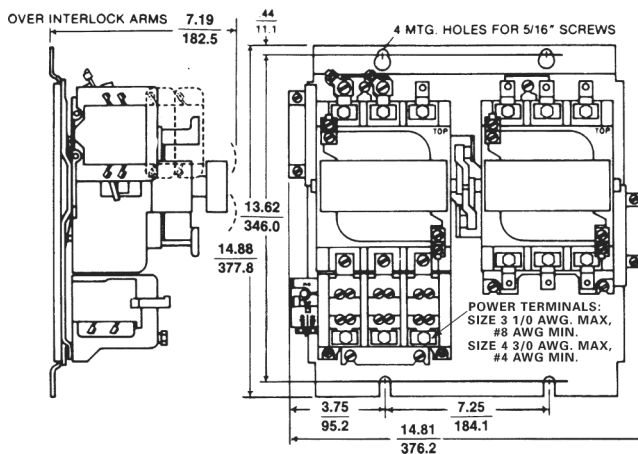
Open Type, NEMA Size 0 and 1 Reversing (Vertical); 7 1/4 lbs.



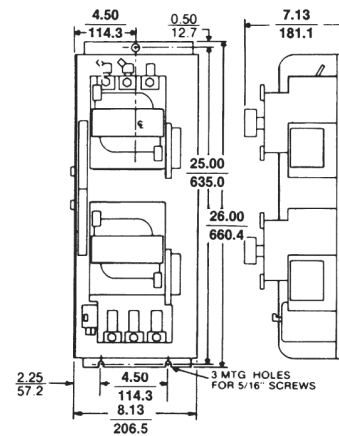
Open Type, NEMA Size 2 Reversing (Horizontal), 16 1/4 lbs.



Open Type, NEMA Size 2 Reversing (Vertical); 16 1/4 lbs.



Open Type, NEMA Size 3 and 4 Reversing (Horizontal); 49 lbs.



Open Type, NEMA Size 3 and 4 Reversing (Vertical); 49 lbs.



Product Number Selection Instructions: See page 1-17

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Reversing Starters

Section 1

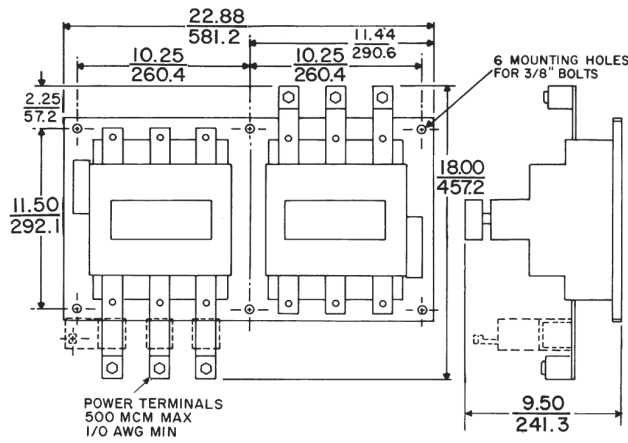
Non-combination

200 Horsepower Maximum

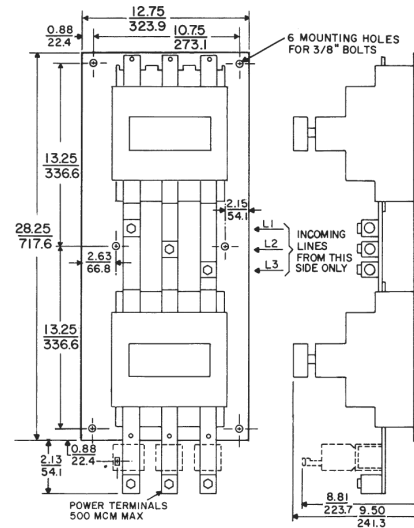
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions ($\frac{\text{in.}}$), and Weights (For Estimating Only)



Open Type, NEMA Size 5 Reversing (Horizontal); 115 lbs.



Open Type, NEMA Size 5 Reversing (Vertical), 115 lbs.



Enclosure Descriptions: See Section 12

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR309 Magnetic Reversing Starters

Section 1

Non-combination

200 Horsepower Maximum

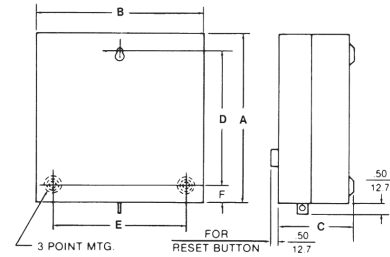
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

CR309 NEMA Type 1 NEMA Sizes 00-2 Reversing

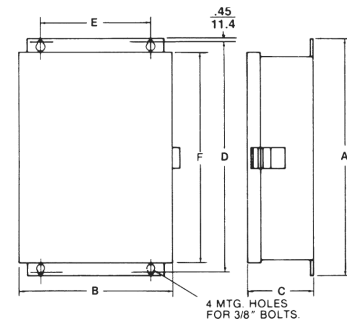
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Mounting Screw Size | Shipping Weight (lbs) |
|-----------|---------------|---------------|--------------|---------------|--------------|-------------|---------------------|-----------------------|
| 00, 0, 1 | 10.00 (254.0) | 10.00 (254.0) | 4.62 (117.4) | 8.00 (203.2) | 8.00 (203.2) | 1.00 (25.4) | # 10 | 12 1/2 |
| 2 | 13.25 (336.6) | 12.00 (304.8) | 6.12 (155.4) | 11.00 (279.4) | 9.00 (228.6) | 1.12 (28.6) | 1/4" | 27 1/2 |



NEMA Type 1, Sizes 00-2 Reversing

CR309 NEMA Type 1 NEMA Sizes 3-5 Reversing

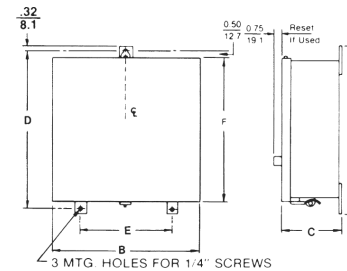
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|----------------|-----------------------|
| 3 | 24.00 (609.6) | 18.00 (457.2) | 8.62 (219.1) | 23.00 (584.2) | 13.00 (330.2) | 21.62 (549.1) | 80 |
| 4 | 30.00 (762.00) | 18.00 (457.2) | 8.62 (219.1) | 29.00 (736.6) | 13.00 (330.2) | 27.62 (701.6) | 100 |
| 5 | 51.13 (1298.7) | 32.00 (812.8) | 11.50 (292.1) | 51.12 (1298.4) | 27.00 (685.8) | 50.12 (1273.0) | 286 |



NEMA Type 1, Sizes 3-5 Reversing

CR309 NEMA Type 12 NEMA Sizes 0-2 Reversing

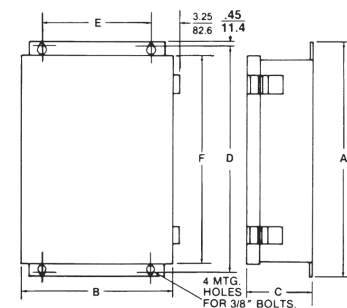
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|---------------|---------------|--------------|---------------|--------------|---------------|-----------------------|
| 0, 1 | 11.87 (301.5) | 10.25 (260.4) | 4.75 (120.6) | 11.00 (279.4) | 7.00 (177.8) | 10.25 (260.4) | 13 |
| 2 | 14.64 (371.8) | 12.25 (311.2) | 6.25 (158.8) | 14.00 (355.6) | 9.00 (228.6) | 13.25 (336.6) | 29 |



NEMA Type 12, Sizes 0-2 Reversing

CR309 NEMA Type 12 NEMA Sizes 3-5 Reversing

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|----------------|-----------------------|
| 3 | 24.00 (609.6) | 18.00 (457.2) | 7.88 (200.0) | 23.00 (584.2) | 13.00 (330.2) | 21.38 (543.0) | 85 |
| 4 | 30.00 (762.0) | 18.00 (457.2) | 7.88 (200.0) | 29.00 (736.6) | 13.00 (330.2) | 26.38 (670.0) | 100 |
| 5 | 51.50 (1308.1) | 32.00 (812.8) | 10.25 (260.4) | 50.50 (1282.7) | 27.00 (685.8) | 48.75 (1238.3) | 286 |



NEMA Type 12, Sizes 3-5 Reversing



Product Number Selection Instructions: See page 1-17

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Reversing Starters

Section 1

Non-combination

200 Horsepower Maximum

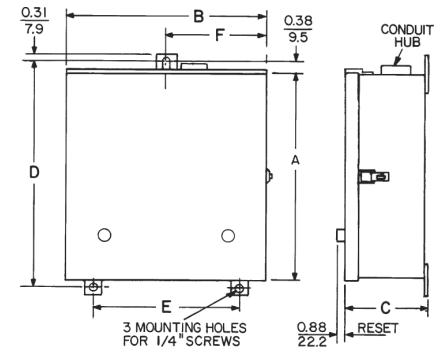
NEMA Sizes 00-5

600 Volts Maximum

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

CR309 NEMA Type 3R NEMA Sizes 0-2 Reversing

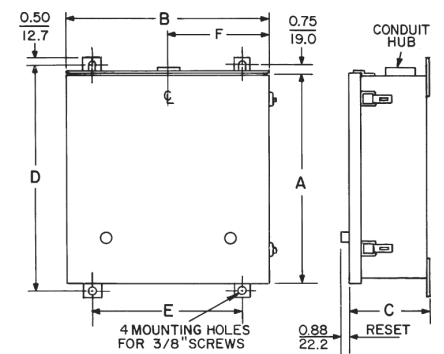
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|---------------|---------------|--------------|---------------|---------------|--------------|-----------------------|
| 0, 1 | 14.50 (368.3) | 10.38 (263.5) | 4.75 (120.6) | 15.00 (381.0) | 11.00 (279.4) | 5.19 (131.7) | 30 |
| 2 | 16.50 (419.1) | 12.50 (317.5) | 6.50 (165.1) | 17.00 (431.8) | 12.00 (304.8) | 6.25 (158.8) | 50 |



NEMA Type 3R, Sizes 0-2 Reversing

CR309 NEMA Type 3R NEMA Sizes 3-5 Reversing

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|---------------|-----------------------|
| 3 | 26.00 (660.4) | 21.00 (533.4) | 8.00 (203.2) | 27.50 (698.5) | 15.00 (381.0) | 10.50 (266.7) | 90 |
| 4 | 30.00 (762.0) | 21.00 (533.4) | 8.00 (203.2) | 31.50 (800.1) | 15.00 (381.0) | 10.50 (266.7) | 105 |
| 5 | 48.00 (1219.2) | 32.00 (812.8) | 10.25 (260.4) | 49.50 (1257.3) | 26.00 (660.4) | 16.00 (406.4) | 286 |



NEMA Type 3R, Sizes 3-5 Reversing

CR309 NEMA Type 4/4X NEMA Sizes 0-5 Reversing

| NEMA Size | Height | Width | Depth | Shipping Weight (lbs) |
|-----------|----------------|---------------|---------------|-----------------------|
| 0, 1 | 15.63 (397.0) | 10.38 (263.7) | 5.50 (139.7) | 30 |
| 2 | 17.63 (447.8) | 12.50 (317.5) | 7.50 (190.5) | 50 |
| 3 | 29.00 (736.6) | 21.00 (533.4) | 8.88 (225.6) | 90 |
| 4 | 33.00 (838.2) | 21.00 (533.4) | 8.88 (225.6) | 105 |
| 5 | 47.55 (1207.8) | 36.00 (914.4) | 11.12 (282.4) | 260 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Two-Speed Starters

200 Horsepower Maximum
 NEMA Sizes 0-5, Open, NEMA Type 1, 3R, 12, 4/4X
 600 Volts Maximum
 50/60 Hertz

Application

Used for full-voltage operation of two-speed squirrel-cage induction motors at either speed. Consists of two mechanical and cross electrical interlocked contactors with two three-leg block type overload relays, one on each contactor. These bimetallic relays provide overload protection for each speed. 3-3 pole starters are for Two-Speed, Two Winding motors; 5-3 pole starters are for Two-Speed, One-Winding Consequent Pole motors.

Proper motor-speed selection is obtained by adding pilot devices to correspond to each of the motor speeds. Refer to page 1-7 for features of basic starter.

Product Number Selection Instructions

- Specify starter by complete Product Number.
 Example: CR309C104AKA @ **\$744.00, GO-10G.**
- Order forms not listed or with special modifications by complete description using a listed Product Number as reference wherever possible. Example: Similar to CR309E103AKA except with FAST-SLOW-STOP push button in cover.
 Total **List Price \$2328.00, GO-10G.**
- Overload Relay Heaters For NEMA Size 3 Starters**
 For two-speed, variable torque motors with full-load ampere rating, on low speed, below the minimum heater ampere rating listed in Size 3 table, page 1-155, contact nearest GE Representative for suitable overload provision.
- 50 Hertz Starters**
 Pricing for 50 Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. Listed prices for 460-480 Volt also apply to 380-415 Volt, 50 Hertz. See page 1-4 for 380-415 Volt horsepower ratings.

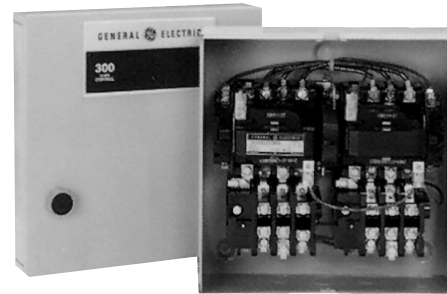
5. Product Notes

The two-winding Product Numbers listed are starters suitable for wye or closed delta connected motor windings. For open delta connected motor windings, contact your nearest GE Representative.

Open form, one-winding starters are wired for constant or variable torque motor application. Reconnection of control wiring may be required for constant horsepower application. Motor full-load current should not exceed continuous ampere rating of starter. Refer to Coil Table, page 1-6, for other available coils including 50 Hertz.

External reset not included on standard listed forms (NEMA Type 12). Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159.

Section 1



Typical NEMA Size 1 Two-Speed Controller in Type 1 Enclosure

Reference Publications

| Instructions | |
|--------------|--------------------|
| NEMA Size | Publication Number |
| 0, 1 | GEH-5190 |
| 2 | GEH-4775 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |

CR309 Magnetic Two-Speed Starters – Contents

| | |
|--|------|
| Application Information and Selection Instructions | 1-24 |
| Non-combination, NEMA Sizes 0-5 with Thermal Overload Relays, Two-Winding | 1-25 |
| Non-combination, NEMA Sizes 0-5 with Thermal Overload Relays, One-Winding | 1-26 |
| Outlines and Dimensions (CR309)..... | 1-27 |



Other Coil Voltages: See page 1-6
 Factory Installed Modifications: See pages 1-124 to 1-131

Field Installed Modifications: See pages 1-132 to 1-138
 Extra Auxiliary Contacts: See pages 1-132 to 1-134
 Heater Selection Tables: See pages 1-153 to 1-159

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR309 Magnetic Starters

Two-Speed, Two-Winding, 3-3 pole

Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-5 With Thermal Overload Relay

600 Volts Maximum 50/60 Hertz

Three-Phase

List Price includes a holding interlock, mechanical and cross-electrical interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset) for each speed. All enclosures include external reset. One NO isolated contact on each overload relay is available as an option at **\$48.00, GO-10G** (for both). To order, change suffix AKA to LKA for Product Numbers listed in table. Refer to page 1-76 for two-speed combination forms. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

The Product Numbers listed are starters suitable for wye or closed delta connected motor windings. For open delta connected motor windings, contact your nearest GE Representative.

CR309, Three-Phase Two-Winding Magnetic Starters

| NEMA Size | Continuous Ampere Rating ¹ | Voltage (60 Hz) | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|---------------------------------------|----------------------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | | | | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G | CR309 | GO-10G |
| 0 | 18 | Separate Control—115-120 V | | B002AKA | \$636.00 | B102AKA | \$660.00 | B602AKA | \$846.00 | B202AKA | \$846.00 | B402AKA | \$1236.00 |
| 0 | 18 | 200-208 | 3 | B023AKA | \$636.00 | B123AKA | \$660.00 | B623AKA | \$846.00 | B223AKA | \$846.00 | B423AKA | \$1236.00 |
| 0 | 18 | 230-240 | 3 | B003AKA | \$636.00 | B103AKA | \$660.00 | B603AKA | \$846.00 | B203AKA | \$846.00 | B403AKA | \$1236.00 |
| 0 | 18 | 460-480 | 5 | B004AKA | \$636.00 | B104AKA | \$660.00 | B604AKA | \$846.00 | B204AKA | \$846.00 | B404AKA | \$1236.00 |
| 0 | 18 | 575-600 | 5 | B005AKA | \$636.00 | B105AKA | \$660.00 | B605AKA | \$846.00 | B205AKA | \$846.00 | B405AKA | \$1236.00 |
| 1 | 27 | Separate Control—115-120 V | | C002AKA | \$708.00 | C102AKA | \$744.00 | C602AKA | \$930.00 | C202AKA | \$930.00 | C402AKA | \$1308.00 |
| 1 | 27 | 200-208 | 7 1/2 | C023AKA | \$708.00 | C123AKA | \$744.00 | C623AKA | \$930.00 | C223AKA | \$930.00 | C423AKA | \$1308.00 |
| 1 | 27 | 230-240 | 7 1/2 | C003AKA | \$708.00 | C103AKA | \$744.00 | C603AKA | \$930.00 | C203AKA | \$930.00 | C403AKA | \$1308.00 |
| 1 | 27 | 460-480 | 10 | C004AKA | \$708.00 | C104AKA | \$744.00 | C604AKA | \$930.00 | C204AKA | \$930.00 | C404AKA | \$1308.00 |
| 1 | 27 | 575-600 | 10 | C005AKA | \$708.00 | C105AKA | \$744.00 | C605AKA | \$930.00 | C205AKA | \$930.00 | C405AKA | \$1308.00 |
| 2 | 45 | Separate Control—115-120 V | | D002AKA | \$1236.00 | D102AKA | \$1332.00 | D602AKA | \$1596.00 | D202AKA | \$1596.00 | D402AKA | \$2040.00 |
| 2 | 45 | 200-208 | 10 | D023AKA | \$1236.00 | D123AKA | \$1332.00 | D623AKA | \$1596.00 | D223AKA | \$1596.00 | D423AKA | \$2040.00 |
| 2 | 45 | 230-240 | 15 | D003AKA | \$1236.00 | D103AKA | \$1332.00 | D603AKA | \$1596.00 | D203AKA | \$1596.00 | D403AKA | \$2040.00 |
| 2 | 45 | 460-480 | 25 | D004AKA | \$1236.00 | D104AKA | \$1332.00 | D604AKA | \$1596.00 | D204AKA | \$1596.00 | D404AKA | \$2040.00 |
| 2 | 45 | 575-600 | 25 | D005AKA | \$1236.00 | D105AKA | \$1332.00 | D605AKA | \$1596.00 | D205AKA | \$1596.00 | D405AKA | \$2040.00 |
| 3 | 90 | Separate Control—115-120 V | | E002AKA | \$1920.00 | E102AKA | \$2088.00 | E602AKA | \$2688.00 | E202AKA | \$2688.00 | E402AKA | \$3120.00 |
| 3 | 90 | 200-208 | 25 | E023AKA | \$1920.00 | E123AKA | \$2088.00 | E623AKA | \$2688.00 | E223AKA | \$2688.00 | E423AKA | \$3120.00 |
| 3 | 90 | 230-240 | 30 | E003AKA | \$1920.00 | E103AKA | \$2088.00 | E603AKA | \$2688.00 | E203AKA | \$2688.00 | E403AKA | \$3120.00 |
| 3 | 90 | 460-480 | 50 | E004AKA | \$1920.00 | E104AKA | \$2088.00 | E604AKA | \$2688.00 | E204AKA | \$2688.00 | E404AKA | \$3120.00 |
| 3 | 90 | 575-600 | 50 | E005AKA | \$1920.00 | E105AKA | \$2088.00 | E605AKA | \$2688.00 | E205AKA | \$2688.00 | E405AKA | \$3120.00 |
| 4 | 135 | Separate Control—115-120 V | | F002AKA | \$4812.00 | F102AKA | \$5124.00 | F602AKA | \$6312.00 | F202AKA | \$6312.00 | F402AKA | \$7236.00 |
| 4 | 135 | 200-208 | 40 | F023AKA | \$4812.00 | F123AKA | \$5124.00 | F623AKA | \$6312.00 | F223AKA | \$6312.00 | F423AKA | \$7236.00 |
| 4 | 135 | 230-240 | 50 | F003AKA | \$4812.00 | F103AKA | \$5124.00 | F603AKA | \$6312.00 | F203AKA | \$6312.00 | F403AKA | \$7236.00 |
| 4 | 135 | 460-480 | 100 | F004AKA | \$4812.00 | F104AKA | \$5124.00 | F604AKA | \$6312.00 | F204AKA | \$6312.00 | F404AKA | \$7236.00 |
| 4 | 135 | 575-600 | 100 | F005AKA | \$4812.00 | F105AKA | \$5124.00 | F605AKA | \$6312.00 | F205AKA | \$6312.00 | F405AKA | \$7236.00 |
| 5 | 270 | Separate Control—115-120 V | | G002AKA | \$11370.00 | G102AKA | \$12096.00 | G602AKA | \$17034.00 | G202AKA | \$17034.00 | G402AKA | \$17034.00 |
| 5 | 270 | 200-208 | 75 | G023AKA | \$11370.00 | G123AKA | \$12096.00 | G623AKA | \$17034.00 | G223AKA | \$17034.00 | G423AKA | \$17034.00 |
| 5 | 270 | 230-240 | 100 | G003AKA | \$11370.00 | G103AKA | \$12096.00 | G603AKA | \$17034.00 | G203AKA | \$17034.00 | G403AKA | \$17034.00 |
| 5 | 270 | 460-480 | 200 | G004AKA | \$11370.00 | G104AKA | \$12096.00 | G604AKA | \$17034.00 | G204AKA | \$17034.00 | G404AKA | \$17034.00 |
| 5 | 270 | 575-600 | 200 | G005AKA | \$11370.00 | G105AKA | \$12096.00 | G605AKA | \$17034.00 | G205AKA | \$17034.00 | G405AKA | \$17034.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.



Enclosure Descriptions: See Section 12

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR309 Magnetic Starters

Two-Speed, One-Winding (Consequent Pole), 5-3 pole
Non-combination, Open, NEMA Type 1, 3R, 12, 4/4X
NEMA Sizes 0-5 With Thermal Overload Relay
600 Volts Maximum 50/60 Hertz

Three-Phase

List Price includes a holding interlock, mechanical and cross-electrical interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset) for each speed. All enclosures include external reset. One NO isolated contact on each overload relay is available as an option at **\$48.00, GO-10G** (for both). To order, change suffix AEA to LEA for Product Numbers listed in table. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

Starters are wired for constant or variable torque motor application. Reconnection of control wiring may be required for constant horsepower application. Motor full-load current should not exceed continuous ampere rating of starter. Refer to Coil Table, page 1-6, for other available coils including 50 Hertz.

CR309, Three-Phase One-Winding Magnetic Starters

| NEMA Size | Ampere Rating ¹ | Voltage (60 Hz) | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|----------------------------|----------------------------|------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
| | | | | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G | Product Number CR309 | List Price GO-10G |
| 0 | 18 | Separate Control—115-120 V | | R002AEA | \$900.00 | R102AEA | \$924.00 | R602AEA | \$1110.00 | R202AEA | \$1110.00 | R402AEA | \$1500.00 |
| 0 | 18 | 200-208 | 3 | R023AEA | \$900.00 | R123AEA | \$924.00 | R623AEA | \$1110.00 | R223AEA | \$1110.00 | R423AEA | \$1500.00 |
| 0 | 18 | 230-240 | 3 | R003AEA | \$900.00 | R103AEA | \$924.00 | R603AEA | \$1110.00 | R203AEA | \$1110.00 | R403AEA | \$1500.00 |
| 0 | 18 | 460-480 | 5 | R004AEA | \$900.00 | R104AEA | \$924.00 | R604AEA | \$1110.00 | R204AEA | \$1110.00 | R404AEA | \$1500.00 |
| 0 | 18 | 575-600 | 5 | R005AEA | \$900.00 | R105AEA | \$924.00 | R605AEA | \$1110.00 | R205AEA | \$1110.00 | R405AEA | \$1500.00 |
| 1 | 27 | Separate Control—115-120 V | | S002AEA | \$960.00 | S102AEA | \$996.00 | S602AEA | \$1182.00 | S202AEA | \$1182.00 | S402AEA | \$1560.00 |
| 1 | 27 | 200-208 | | S023AEA | \$960.00 | S123AEA | \$996.00 | S623AEA | \$1182.00 | S223AEA | \$1182.00 | S423AEA | \$1560.00 |
| 1 | 27 | 230-240 | 7 1/2 | S003AEA | \$960.00 | S103AEA | \$996.00 | S603AEA | \$1182.00 | S203AEA | \$1182.00 | S403AEA | \$1560.00 |
| 1 | 27 | 460-480 | 10 | S004AEA | \$960.00 | S104AEA | \$996.00 | S604AEA | \$1182.00 | S204AEA | \$1182.00 | S404AEA | \$1560.00 |
| 1 | 27 | 575-600 | 10 | S005AEA | \$960.00 | S105AEA | \$996.00 | S605AEA | \$1182.00 | S205AEA | \$1182.00 | S405AEA | \$1560.00 |
| 2 | 45 | Separate Control—115-120 V | | T002AEA | \$1704.00 | T102AEA | \$1812.00 | T602AEA | \$2076.00 | T202AEA | \$2076.00 | T402AEA | \$2508.00 |
| 2 | 45 | 200-208 | 10 | T023AEA | \$1704.00 | T123AEA | \$1812.00 | T623AEA | \$2076.00 | T223AEA | \$2076.00 | T423AEA | \$2508.00 |
| 2 | 45 | 230-240 | 15 | T003AEA | \$1704.00 | T103AEA | \$1812.00 | T603AEA | \$2076.00 | T203AEA | \$2076.00 | T403AEA | \$2508.00 |
| 2 | 45 | 460-480 | 25 | T004AEA | \$1704.00 | T104AEA | \$1812.00 | T604AEA | \$2076.00 | T204AEA | \$2076.00 | T404AEA | \$2508.00 |
| 2 | 45 | 575-600 | 25 | T005AEA | \$1704.00 | T105AEA | \$1812.00 | T605AEA | \$2076.00 | T205AEA | \$2076.00 | T405AEA | \$2508.00 |
| 3 | 90 | Separate Control—115-120 V | | U002AEA | \$2568.00 | U102AEA | \$2736.00 | U602AEA | \$3336.00 | U202AEA | \$3336.00 | U402AEA | \$3768.00 |
| 3 | 90 | 200-208 | 25 | U023AEA | \$2568.00 | U123AEA | \$2736.00 | U623AEA | \$3336.00 | U223AEA | \$3336.00 | U423AEA | \$3768.00 |
| 3 | 90 | 230-240 | 30 | U003AEA | \$2568.00 | U103AEA | \$2736.00 | U603AEA | \$3336.00 | U203AEA | \$3336.00 | U403AEA | \$3768.00 |
| 3 | 90 | 460-480 | 50 | U004AEA | \$2568.00 | U104AEA | \$2736.00 | U604AEA | \$3336.00 | U204AEA | \$3336.00 | U404AEA | \$3768.00 |
| 3 | 90 | 575-600 | 50 | U005AEA | \$2568.00 | U105AEA | \$2736.00 | U605AEA | \$3336.00 | U205AEA | \$3336.00 | U405AEA | \$3768.00 |
| 4 | 135 | Separate Control—115-120 V | | W002AEA | \$6648.00 | W102AEA | \$7308.00 | W602AEA | \$8496.00 | W202AEA | \$8496.00 | W402AEA | \$9420.00 |
| 4 | 135 | 200-208 | 40 | W023AEA | \$6648.00 | W123AEA | \$7308.00 | W623AEA | \$8496.00 | W223AEA | \$8496.00 | W423AEA | \$9420.00 |
| 4 | 135 | 230-240 | 50 | W003AEA | \$6648.00 | W103AEA | \$7308.00 | W603AEA | \$8496.00 | W203AEA | \$8496.00 | W403AEA | \$9420.00 |
| 4 | 135 | 460-480 | 100 | W004AEA | \$6648.00 | W104AEA | \$7308.00 | W604AEA | \$8496.00 | W204AEA | \$8496.00 | W404AEA | \$9420.00 |
| 4 | 135 | 575-600 | 100 | W005AEA | \$6648.00 | W105AEA | \$7308.00 | W605AEA | \$8496.00 | W205AEA | \$8496.00 | W405AEA | \$9420.00 |
| 5 | 270 | Separate Control—115-120 V | | Z002AEA | \$13140.00 | Z102AEA | \$14442.00 | Z602AEA | \$19380.00 | Z202AEA | \$19380.00 | Z402AEA | \$19380.00 |
| 5 | 270 | 200-208 | 75 | Z023AEA | \$13140.00 | Z123AEA | \$14442.00 | Z623AEA | \$19380.00 | Z223AEA | \$19380.00 | Z423AEA | \$19380.00 |
| 5 | 270 | 230-240 | 100 | Z003AEA | \$13140.00 | Z103AEA | \$14442.00 | Z603AEA | \$19380.00 | Z203AEA | \$19380.00 | Z403AEA | \$19380.00 |
| 5 | 270 | 460-480 | 200 | Z004AEA | \$13140.00 | Z104AEA | \$14442.00 | Z604AEA | \$19380.00 | Z204AEA | \$19380.00 | Z404AEA | \$19380.00 |
| 5 | 270 | 575-600 | 200 | Z005AEA | \$13140.00 | Z105AEA | \$14442.00 | Z605AEA | \$19380.00 | Z205AEA | \$19380.00 | Z405AEA | \$19380.00 |

¹Motor full load current should not exceed continuous ampere rating of the starter.



Other Coil Voltages: See page 1-6
Factory Installed Modifications: See pages 1-124 to 1-131

Field Installed Modifications: See pages 1-132 to 1-138
Extra Auxiliary Contacts: See pages 1-132 to 1-134
Heater Selection Tables: See pages 1-153 to 1-159

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

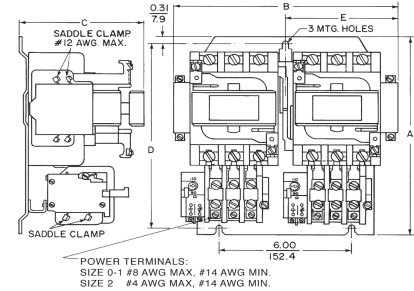
CR309 Magnetic Starters

Section 1

Two-Speed
 Non-combination
 200 Horsepower Maximum
 NEMA Sizes 0-5
 600 Volts Maximum
 Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

CR309 Open NEMA Sizes 0-2 Two-Speed

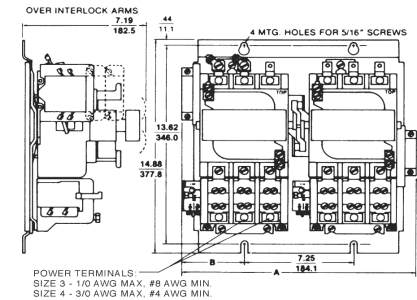
| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Mounting Screw Size | Shipping Weight (lbs.) |
|-----------|------------------------|--------------|---------------|--------------|--------------|--------------|---------------------|------------------------|
| 0, 1 | Two-Speed, Two-Winding | 7.00 (177.8) | 8.88 (225.6) | 3.94 (100.0) | 6.50 (165.1) | 4.44 (112.8) | #10 | 8 |
| 0, 1 | Two-Speed, One-Winding | 7.00 (177.8) | 9.88 (251.0) | 3.94 (100.0) | 6.50 (165.1) | 4.44 (112.8) | #10 | 8 3/4 |
| 2 | Two-Speed, Two-Winding | 9.12 (231.6) | 10.36 (263.2) | 5.38 (136.6) | 8.50 (215.8) | 5.19 (131.7) | 1/4" | 18 1/4 |
| 2 | Two-Speed, One-Winding | 9.12 (231.6) | 13.38 (339.6) | 5.38 (136.6) | 8.50 (215.8) | 5.19 (131.7) | 1/4" | 19 |



Open Type, NEMA Sizes 0-2 Two-Speed

CR309 Open NEMA Sizes 3 and 4 Two-Speed

| NEMA Size | Operation Type | Dimension A | Dimension B | Shipping Weight (lbs.) |
|-----------|------------------------|---------------|--------------|------------------------|
| 3, 4 | Two-Speed, Two-Winding | 14.81 (376.2) | 3.75 (95.2) | 50 |
| 3, 4 | Two-Speed, One-Winding | 18.81 (477.8) | 5.81 (147.6) | 52 |

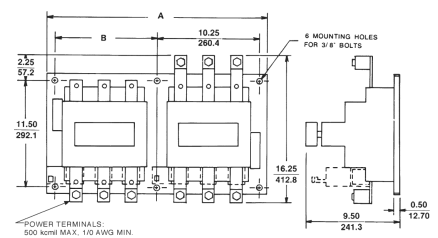


Open Type, NEMA Sizes 3 and 4 Two-Speed

CR309 Open NEMA Size 5 Two-Speed

| NEMA Size | Operation Type | Dimension A | Dimension B | Shipping Weight ¹ (lbs.) |
|-----------|------------------------|---------------|---------------|-------------------------------------|
| 5 | Two-Speed, Two-Winding | 22.88 (581.2) | 10.25 (260.4) | |
| 5 | Two-Speed, One-Winding | 28.75 (730.3) | 16.00 (406.4) | |

¹Contact nearest GE Representative for weight.



Open Type, NEMA Size 5 Two-Speed



Enclosure Descriptions: See Section 12
 Product Number Selection Instructions:
 See page 1-24

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Starters

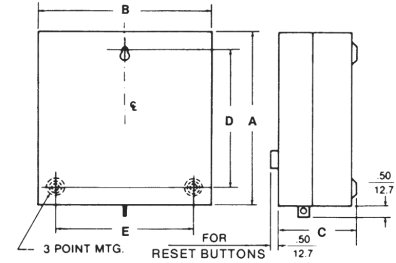
Two-Speed
Non-combination
200 Horsepower Maximum
NEMA Sizes 0-5
600 Volts Maximum

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1

CR309 NEMA Type 1 NEMA Sizes 0-2 Two-Speed

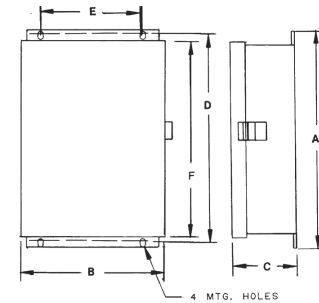
| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Mounting Screw Size | Shipping Weight (lbs.) |
|-----------|------------------------|---------------|---------------|--------------|---------------|---------------|---------------------|------------------------|
| 0, 1 | Two-Speed, Two-Winding | 10.00 (254.0) | 10.00 (254.0) | 4.62 (117.3) | 8.00 (203.2) | 8.00 (203.2) | #10 | 13 |
| 0, 1 | Two-Speed, One-Winding | 10.00 (254.0) | 13.50 (342.9) | 4.62 (117.3) | 8.00 (203.2) | 11.50 (292.1) | #10 | 14 |
| 2 | Two-Speed, Two-Winding | 13.25 (336.6) | 12.00 (304.8) | 6.12 (155.4) | 11.00 (279.4) | 9.00 (228.6) | 1/4" | 28 |
| 2 | Two-Speed, One-Winding | 13.25 (336.6) | 16.00 (406.4) | 6.12 (155.4) | 11.00 (279.4) | 13.00 (330.2) | 1/4" | 30 |



NEMA Type 1, Sizes 0 - 2 Two-Speed

CR309 NEMA Type 1 NEMA Sizes 3-5 Two-Speed

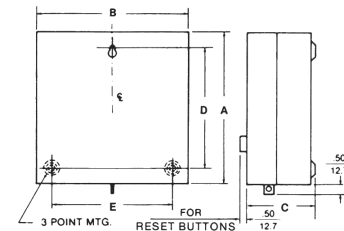
| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs.) |
|-----------|------------------------|----------------|---------------|---------------|----------------|---------------|----------------|------------------------|
| 3 | Two-Speed, Two-Winding | 24.00 (609.6) | 18.00 (457.2) | 8.62 (219.0) | 23.00 (584.2) | 13.00 (330.2) | 21.62 (549.1) | 90 |
| 3 | Two-Speed, One-Winding | 28.00 (711.2) | 22.00 (558.8) | 8.62 (219.0) | 27.00 (685.8) | 17.00 (431.8) | 25.62 (650.8) | 105 |
| 4 | Two-Speed, Two-Winding | 30.00 (762.0) | 18.00 (457.2) | 8.62 (219.0) | 29.00 (736.6) | 13.00 (330.2) | 27.62 (701.6) | 125 |
| 4 | Two-Speed, One-Winding | 34.00 (863.6) | 22.00 (558.8) | 8.62 (219.0) | 33.00 (838.2) | 17.00 (431.8) | 31.62 (803.2) | 130 |
| 5 | Two-Speed, Two-Winding | 51.13 (1298.7) | 32.00 (812.8) | 11.50 (292.1) | 50.13 (1273.3) | 27.00 (685.8) | 50.12 (1273.0) | - |
| 5 | Two-Speed, One-Winding | 51.13 (1298.7) | 32.00 (812.8) | 11.50 (292.1) | 50.13 (1273.3) | 27.00 (685.8) | 50.12 (1273.0) | - |



NEMA Type 1, Sizes 3 - 5 Two-Speed

CR309 NEMA Type 12 NEMA Sizes 0-2 Two-Speed

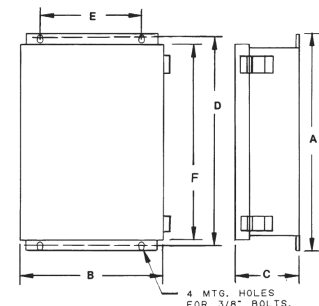
| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs.) |
|-----------|------------------------|---------------|---------------|--------------|---------------|---------------|---------------|------------------------|
| 0, 1 | Two-Speed, Two-Winding | 11.62 (295.1) | 10.25 (260.4) | 4.75 (120.6) | 11.00 (279.4) | 7.00 (177.8) | 10.25 (260.4) | 14 |
| 0, 1 | Two-Speed, One-Winding | 15.62 (396.7) | 14.25 (362.0) | 4.75 (120.6) | 15.00 (381.0) | 11.00 (279.4) | 14.25 (362.0) | 14 |
| 2 | Two-Speed, Two-Winding | 14.62 (371.3) | 12.25 (311.2) | 6.25 (158.8) | 14.00 (355.6) | 9.00 (228.6) | 13.25 (336.6) | 30 |
| 2 | Two-Speed, One-Winding | 17.62 (447.5) | 16.25 (412.8) | 6.25 (158.8) | 17.00 (431.8) | 12.00 (304.8) | 16.25 (412.8) | 30 |



NEMA Type 12, Sizes 0 - 2 Two-Speed

CR309 NEMA Type 12 NEMA Sizes 3-5 Two-Speed

| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs.) |
|-----------|------------------------|----------------|---------------|---------------|----------------|---------------|----------------|------------------------|
| 3 | Two-Speed, Two-Winding | 24.00 (609.6) | 18.00 (457.2) | 7.88 (200.0) | 23.00 (584.2) | 13.00 (330.2) | 21.38 (543.0) | 90 |
| 3 | Two-Speed, One-Winding | 28.00 (711.2) | 22.00 (558.8) | 7.88 (200.0) | 27.00 (685.8) | 17.00 (431.8) | 25.38 (644.7) | 105 |
| 4 | Two-Speed, Two-Winding | 30.00 (762.0) | 18.00 (457.2) | 7.88 (200.0) | 29.00 (736.6) | 17.00 (431.8) | 31.38 (797.1) | 125 |
| 4 | Two-Speed, One-Winding | 34.00 (863.6) | 22.00 (558.8) | 7.88 (200.0) | 33.00 (838.2) | 17.00 (431.8) | 31.38 (797.1) | 130 |
| 5 | Two-Speed, Two-Winding | 51.50 (1308.1) | 32.00 (812.8) | 10.25 (260.4) | 50.50 (1282.7) | 27.00 (685.8) | 48.75 (1238.3) | - |
| 5 | Two-Speed, One-Winding | 51.50 (1308.1) | 32.00 (812.8) | 10.25 (260.4) | 50.50 (1282.7) | 27.00 (685.8) | 48.75 (1238.3) | - |



NEMA Type 12, Size 3 - 5 Two-Speed



Product Number Selection Instructions: See page 1-24

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR309 Magnetic Starters

Section 1

Two-Speed

Non-combination

200 Horsepower Maximum

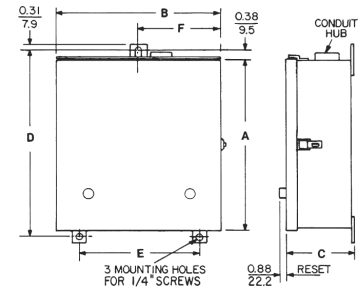
NEMA Sizes 0-5

600 Volts Maximum

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

CR309 NEMA Type 3R NEMA Sizes 0-2 Two-Speed

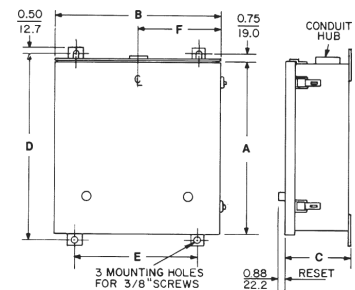
| NEMA Size | Operation Type | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs.) |
|-----------|------------------------|---------------|---------------|--------------|---------------|---------------|--------------|------------------------|
| 0, 1 | Two-Speed, Two-Winding | 14.50 (368.3) | 10.88 (263.5) | 4.75 (120.6) | 15.00 (381.0) | 7.00 (177.8) | 5.19 (131.7) | 31 |
| 0, 1 | Two-Speed, One-Winding | 14.50 (368.3) | 14.38 (365.1) | 4.75 (120.6) | 15.00 (381.0) | 11.00 (279.4) | 7.19 (182.5) | 33 |
| 2 | Two-Speed, Two-Winding | 16.50 (419.1) | 12.50 (317.5) | 6.50 (165.1) | 17.00 (431.8) | 8.00 (203.2) | 6.25 (158.7) | 51 |
| 2 | Two-Speed, One-Winding | 16.50 (419.1) | 16.50 (419.1) | 6.50 (165.1) | 17.00 (431.8) | 12.00 (304.8) | 8.25 (209.5) | 56 |



NEMA Type 3R, Sizes 0 - 2 Two-Speed

CR309 NEMA Type 3R NEMA Sizes 3-5 Two-Speed

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Shipping Weight (lbs.) |
|-----------|----------------|---------------|---------------|----------------|---------------|---------------|------------------------|
| 3 | 26.00 (660.4) | 21.00 (533.4) | 8.00 (203.2) | 27.50 (698.5) | 15.00 (381.0) | 10.50 (266.7) | 90 |
| 4 | 30.00 (762.0) | 21.00 (533.4) | 8.00 (203.2) | 31.50 (800.1) | 15.00 (381.0) | 10.50 (266.7) | 105 |
| 5 | 48.00 (1219.2) | 32.00 (812.8) | 10.25 (260.4) | 49.50 (1257.3) | 26.00 (660.4) | 16.00 (406.4) | 295 |



NEMA Type 3R, Sizes 3 - 5 Two-Speed

CR309 NEMA Type 4/4X NEMA Sizes 0-5 Two-Speed

| NEMA Size | Product Number | Height | Width | Depth | Shipping Weight (lbs.) | |
|-----------|--------------------|----------------|---------------|---------------|------------------------|----------|
| | | | | | 3-3 Pole | 5-3 Pole |
| 0, 1 | CR309 (B4 & C4) | 15.62 (396.7) | 10.38 (263.7) | 5.50 (139.7) | 31 | — |
| 0, 1 | CR309 (R4 & S4) | 15.62 (396.1) | 14.38 (365.2) | 5.50 (139.7) | — | 33 |
| 2 | CR309 D4 | 17.62 (447.5) | 12.50 (317.3) | 6.25 (158.6) | 51 | — |
| 2 | CR309 T4 | 17.62 (447.5) | 16.50 (419.1) | 6.5 (165.1) | — | 56 |
| 3 | CR309 E4, CR309 U4 | 29.00 (736.6) | 21.00 (533.4) | 8.0 (203.2) | 85 | 100 |
| 4 | CR309 F4, CR309 W4 | 33.00 (838.2) | 21.00 (533.4) | 8.0 (203.2) | 120 | 130 |
| 5 | CR309 G4, CR309 Z4 | 47.55 (1207.8) | 36.00 (914.4) | 11.12 (282.4) | 230 | 250 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR307, CR407, CR308, CR408 Magnetic Starters

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 400 Horsepower Maximum
 NEMA Sizes 0-6
 600 Volts Maximum
 50/60 Hertz

Application

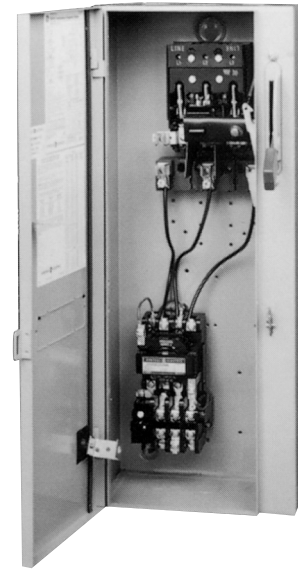
These combination starters are used for full voltage starting of single-speed squirrel-cage induction motors up to 400 horsepower maximum, 600 Volts maximum. Each starter provides short-circuit protection by means of a fusible disconnect, a thermal magnetic trip circuit breaker, or circuit interrupter function with a nonfusible disconnect switch.

Features

- Branch circuit protection**—is provided by means of a Type QMR disconnect switch or molded case circuit breaker.
 - Mechanism**—always controls interrupting switch.
 - Easy inspection, maintenance**—performed from starter front.
 - Optional factory-installed control transformer.**
- Refer to page 1-7 for features of basic starter.

Product Number Selection Instructions

1. Specify starter by complete Product Number. Example: CR308CT03HB1AAAAA is a Size 1 starter, combination disconnect form with 230-240 Volt, 60-Hertz coil and 60-Ampere class H fuse clips in Type 1 general-purpose enclosure @ **\$606.00, GO-10G1.**
2. Order special features or forms not listed by complete description using a listed Product Number as reference. Example: Similar to CR308CT03HB1AAAAA except with red indicating light in cover. Total **List Price, \$696.00, GO-10G1.**
3. **50-Hertz Starters**
 Pricing of starters for use on 50 Hertz (at standard voltages) is the same as shown in tables for 60 Hertz. Order by description, using a listed form as reference. Refer to page 1-4 for three-phase horsepower rating at 380-415 Volts, 50 Hertz.
4. **Control Transformer**
 All catalog listed CR307 and CR308 combination starters have provision for field mounting a standard control circuit transformer. Refer to page 1-137 for transformer kit Product Numbers and pricing. Also, see page 1-126 for information on factory-installed standard and extra-capacity transformers. Specify transformer rating on order.
5. **Product Notes**
 Motor full-load current should not exceed continuous ampere rating of starter.
 Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159.



Typical Combination Starter in General Purpose Type 1 Enclosure

Reference Publications

| Instructions | |
|--------------|--------------------|
| NEMA Size | Publication Number |
| 0, 1 | GEH-5190 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4838 |
| 6 | GEH-5198 |

CR307, CR407, CR308, CR408 Magnetic Starters - Contents

| | |
|--|------|
| Application Information and Selection Instructions | 1-30 |
| Nonfusible Disconnect Type (CR308, CR408)..... | 1-31 |
| Fusible Disconnect Type (CR308, CR408) | 1-32 |
| Nonfusible and Fusible Part Number Configuration | |
| Size 0-2, NEMA Type 1 (CR308)..... | 1-34 |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR408) | 1-37 |
| Thermal Magnetic Circuit Breaker Type (CR307, CR407) | 1-42 |
| Thermal Magnetic Part Number Configuration | |
| Size 0-2, NEMA Type 1 (CR307)..... | 1-43 |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR407) | 1-46 |
| Outlines and Dimensions | 1-59 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308, CR408 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-6, Nonfusible Disconnect Type
 600 Volts Maximum 50/60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00, GO-10H.**

CR308/408 Nonfusible Disconnect

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|---------------------------|--------------------------|
| | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 308BT081A1AAAA | \$546.00 | 408B6081A1AAAA | \$690.00 | 408B2081A1AAAA | \$690.00 | 408B4081A1AAAA | \$1122.00 |
| 200-208 | 1 | 7 1/2 | 27 | 308CT081A1AAAA | \$576.00 | 408C6081A1AAAA | \$720.00 | 408C2081A1AAAA | \$720.00 | 408C4081A1AAAA | \$1152.00 |
| 200-208 | 2 | 10 | 45 | 308DT081A1AAAA | \$912.00 | 408D6081A1AAAA | \$1116.00 | 408D2081A1AAAA | \$1116.00 | 408D4081A1AAAA | \$1800.00 |
| 200-208 | 3 | 25 | 90 | 408E1081A1AAAA | \$1518.00 | 408E6081A1AAAA | \$1782.00 | 408E2081A1AAAA | \$1782.00 | 408E4081A1AAAA | \$3066.00 |
| 200-208 | 4 | 40 | 135 | 408F1081A1AAAA | \$2928.00 | 408F6081A1AAAA | \$3660.00 | 408F2081A1AAAA | \$3660.00 | 408F4081A1AAAA | \$4908.00 |
| 200-208 | 5 | 75 | 270 | 308G123AAA | \$6573.00 | 308G623AAAA | \$8349.00 | 308G223AEA | \$8349.00 | 308G423AAAA | \$11625.00 |
| 200-208 | 6 | 150 | 540 | 308HH123AAAA | \$17343.00 | 308HH623AAAA | \$19413.00 | 308HH223AEA | \$19413.00 | 308HH423AAAA ¹ | \$22143.00 |
| 230-240 | 0 | 3 | 18 | 308BT031A1AAAA | \$546.00 | 408B6031A1AAAA | \$690.00 | 408B2031A1AAAA | \$690.00 | 408B4031A1AAAA | \$1122.00 |
| 230-240 | 1 | 7 1/2 | 27 | 308CT031A1AAAA | \$576.00 | 408C6031A1AAAA | \$720.00 | 408C2031A1AAAA | \$720.00 | 408C4031A1AAAA | \$1152.00 |
| 230-240 | 2 | 15 | 45 | 308DT031A1AAAA | \$912.00 | 408D6031A1AAAA | \$1116.00 | 408D2031A1AAAA | \$1116.00 | 408D4031A1AAAA | \$1800.00 |
| 230-240 | 3 | 30 | 90 | 408E1031A1AAAA | \$1518.00 | 408E6031A1AAAA | \$1782.00 | 408E2031A1AAAA | \$1782.00 | 408E4031A1AAAA | \$3066.00 |
| 230-240 | 4 | 50 | 135 | 408F1031A1AAAA | \$2928.00 | 408F6031A1AAAA | \$3660.00 | 408F2031A1AAAA | \$3660.00 | 408F4031A1AAAA | \$4908.00 |
| 230-240 | 5 | 100 | 270 | 308G103AAA | \$6573.00 | 308G603AAAA | \$8349.00 | 308G203AEA | \$8349.00 | 308G403AAAA | \$11625.00 |
| 230-240 | 6 | 200 | 540 | 308HH103AAAA | \$17343.00 | 308HH603AAAA | \$19413.00 | 308HH203AEA | \$19413.00 | 308HH403AAAA ¹ | \$22143.00 |
| 460-480 | 0 | 5 | 18 | 308BT041A1AAAA | \$546.00 | 408B6041A1AAAA | \$690.00 | 408B2041A1AAAA | \$690.00 | 408B4041A1AAAA | \$1122.00 |
| 460-480 | 1 | 10 | 27 | 308CT041A1AAAA | \$576.00 | 408C6041A1AAAA | \$720.00 | 408C2041A1AAAA | \$720.00 | 408C4041A1AAAA | \$1152.00 |
| 460-480 | 2 | 25 | 45 | 308DT041A1AAAA | \$912.00 | 408D6041A1AAAA | \$1116.00 | 408D2041A1AAAA | \$1116.00 | 408D4041A1AAAA | \$1800.00 |
| 460-480 | 3 | 50 | 90 | 408E1041A1AAAA | \$1518.00 | 408E6041A1AAAA | \$1782.00 | 408E2041A1AAAA | \$1782.00 | 408E4041A1AAAA | \$3066.00 |
| 460-480 | 4 | 100 | 135 | 408F1041A1AAAA | \$2928.00 | 408F6041A1AAAA | \$3660.00 | 408F2041A1AAAA | \$3660.00 | 408F4041A1AAAA | \$4908.00 |
| 460-480 | 5 | 200 | 270 | 308G104AAA | \$6573.00 | 308G604AAAA | \$8349.00 | 308G204AEA | \$8349.00 | 308G404AAAA | \$11625.00 |
| 460-480 | 6 | 400 | 540 | 308HH104AAAA | \$17343.00 | 308HH604AAAA | \$19413.00 | 308HH204AEA | \$19413.00 | 308HH404AAAA ¹ | \$22143.00 |
| 575-600 | 0 | 5 | 18 | 308BT051A1AAAA | \$546.00 | 408B6051A1AAAA | \$690.00 | 408B2051A1AAAA | \$690.00 | 408B4051A1AAAA | \$1122.00 |
| 575-600 | 1 | 10 | 27 | 308CT051A1AAAA | \$576.00 | 408C6051A1AAAA | \$720.00 | 408C2051A1AAAA | \$720.00 | 408C4051A1AAAA | \$1152.00 |
| 575-600 | 2 | 25 | 45 | 308DT051A1AAAA | \$912.00 | 408D6051A1AAAA | \$1116.00 | 408D2051A1AAAA | \$1116.00 | 408D4051A1AAAA | \$1800.00 |
| 575-600 | 3 | 50 | 90 | 408E1051A1AAAA | \$1518.00 | 408E6051A1AAAA | \$1782.00 | 408E2051A1AAAA | \$1782.00 | 408E4051A1AAAA | \$3066.00 |
| 575-600 | 4 | 100 | 135 | 408F1051A1AAAA | \$2928.00 | 408F6051A1AAAA | \$3660.00 | 408F2051A1AAAA | \$3660.00 | 408F4051A1AAAA | \$4908.00 |
| 575-600 | 5 | 200 | 270 | 308G105AAA | \$6573.00 | 308G605AAAA | \$8349.00 | 308G205AEA | \$8349.00 | 308G405AAAA | \$11625.00 |
| 575-600 | 6 | 400 | 540 | 308HH105AAAA | \$17343.00 | 308HH605AAAA | \$19413.00 | 308HH205AEA | \$19413.00 | 308HH405AAAA ¹ | \$22143.00 |

¹Painted steel Type 4 enclosure is standard for NEMA Size 6 forms.

- NEMA Size 0-6 starters with 115-120 Volt, 60-Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
 Example: CR408C2051A1AAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR408C2021A1AAAA.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308, CR408 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-6, Fusible Disconnect Type
 600 Volts Maximum 50/60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). Fuses not included. All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00, GO-10H.**

CR308/408 Fusible Disconnect (Class H Fuse Clips)

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Fuse Clip | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|----------------------|------------------|------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | Amp Rating | Amp Rating | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 308BT08HA1AAAAA | \$564.00 | 408B608HA1AAAAA | \$708.00 | 408B208HA1AAAAA | \$708.00 | 408B408HA1AAAAA | \$1140.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 308CT08HB1AAAAA | \$606.00 | 408C608HB1AAAAA | \$750.00 | 408C208HB1AAAAA | \$750.00 | 408C408HB1AAAAA | \$1182.00 |
| 200-208 | 2 | 10 | 45 | 100 | 308DT08HC1AAAAA | \$1008.00 | 408D608HC1AAAAA | \$1212.00 | 408D208HC1AAAAA | \$1212.00 | 408D408HC1AAAAA | \$1896.00 |
| 200-208 | 3 | 25 | 90 | 200 ¹ | 408E108HD1AAAAA | \$1710.00 | 408E608HD1AAAAA | \$1974.00 | 408E208HD1AAAAA | \$1974.00 | 408E408HD1AAAAA | \$3258.00 |
| 200-208 | 4 | 40 | 135 | 400 ¹ | 408F108HE1AAAAA | \$3144.00 | 408F608HE1AAAAA | \$3876.00 | 408F208HE1AAAAA | \$3876.00 | 408F408HE1AAAAA | \$5124.00 |
| 200-208 | 5 | 75 | 270 | 400 ¹ | 308G123BAA | \$6789.00 | 308G623BAAA | \$8334.00 | 308G223BEA | \$8334.00 | 308G423BAAA | \$11841.00 |
| 230-240 | 0 | 3 | 18 | 30 | 308BT03HA1AAAAA | \$564.00 | 408B603HA1AAAAA | \$708.00 | 408B203HA1AAAAA | \$708.00 | 408B403HA1AAAAA | \$1140.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 308CT03HB1AAAAA | \$606.00 | 408C603HB1AAAAA | \$750.00 | 408C203HB1AAAAA | \$750.00 | 408C403HB1AAAAA | \$1182.00 |
| 230-240 | 2 | 15 | 45 | 100 | 308DT03HC1AAAAA | \$1008.00 | 408D603HC1AAAAA | \$1212.00 | 408D203HC1AAAAA | \$1212.00 | 408D403HC1AAAAA | \$1896.00 |
| 230-240 | 3 | 30 | 90 | 200 ¹ | 408E103HD1AAAAA | \$1710.00 | 408E603HD1AAAAA | \$1974.00 | 408E203HD1AAAAA | \$1974.00 | 408E403HD1AAAAA | \$3258.00 |
| 230-240 | 4 | 50 | 135 | 400 ¹ | 408F103HE1AAAAA | \$3144.00 | 408F603HE1AAAAA | \$3876.00 | 408F203HE1AAAAA | \$3876.00 | 408F403HE1AAAAA | \$5124.00 |
| 230-240 | 5 | 100 | 270 | 400 ¹ | 308G103BAA | \$6789.00 | 308G603BAAA | \$8334.00 | 308G203BEA | \$8334.00 | 308G403BAAA | \$11841.00 |
| 460-480 | 0 | 5 | 18 | 30 | 308BT04H31AAAAA | \$576.00 | 408B604H31AAAAA | \$720.00 | 408B204H31AAAAA | \$720.00 | 408B404H31AAAAA | \$1152.00 |
| 460-480 | 1 | 7 1/2 | 27 | 30 | 308CT04H31AAAAA | \$606.00 | 408C604H31AAAAA | \$750.00 | 408C204H31AAAAA | \$750.00 | 408C404H31AAAAA | \$1182.00 |
| 460-480 | 1 | 10 | 27 | 60 | 308CT04H61AAAAA | \$618.00 | 408C604H61AAAAA | \$762.00 | 408C204H61AAAAA | \$762.00 | 408C404H61AAAAA | \$1194.00 |
| 460-480 | 2 | 15 | 45 | 60 | 308DT04H61AAAAA | \$954.00 | 408D604H61AAAAA | \$1158.00 | 408D204H61AAAAA | \$1158.00 | 408D404H61AAAAA | \$1842.00 |
| 460-480 | 2 | 25 | 45 | 100 | 308DT04H11AAAAA ¹ | \$1020.00 | 408D604H11AAAAA | \$1224.00 | 408D204H11AAAAA | \$1224.00 | 408D404H11AAAAA | \$1908.00 |
| 460-480 | 3 | 30 | 90 | 100 | 408E104H11AAAAA | \$1608.00 | 408E604H11AAAAA | \$1872.00 | 408E204H11AAAAA | \$1872.00 | 408E404H11AAAAA | \$3156.00 |
| 460-480 | 3 | 50 | 90 | 200 ¹ | 408E104H21AAAAA | \$1734.00 | 408E604H21AAAAA | \$1998.00 | 408E204H21AAAAA | \$1998.00 | 408E404H21AAAAA | \$3282.00 |
| 460-480 | 4 | 60 | 135 | 200 ¹ | 408F104H21AAAAA | \$3054.00 | 408F604H21AAAAA | \$3786.00 | 408F204H21AAAAA | \$3786.00 | 408F404H21AAAAA | \$5034.00 |
| 460-480 | 4 | 100 | 135 | 400 ¹ | 408F104H41AAAAA | \$3144.00 | 408F604H41AAAAA | \$3876.00 | 408F204H41AAAAA | \$3876.00 | 408F404H41AAAAA | \$5124.00 |
| 575-600 | 0 | 5 | 18 | 30 | 308BT05H31AAAAA | \$576.00 | 408B605H31AAAAA | \$720.00 | 408B205H31AAAAA | \$720.00 | 408B405H31AAAAA | \$1152.00 |
| 575-600 | 1 | 10 | 27 | 30 | 308CT05H31AAAAA | \$606.00 | 408C605H31AAAAA | \$750.00 | 408C205H31AAAAA | \$750.00 | 408C405H31AAAAA | \$1182.00 |
| 575-600 | 2 | 20 | 45 | 60 | 308DT05H61AAAAA | \$954.00 | 408D605H61AAAAA | \$1158.00 | 408D205H61AAAAA | \$1158.00 | 408D405H61AAAAA | \$1842.00 |
| 575-600 | 2 | 25 | 45 | 100 | 308DT05H11AAAAA ¹ | \$1020.00 | 408D605H11AAAAA | \$1224.00 | 408D205H11AAAAA | \$1224.00 | 408D405H11AAAAA | \$1908.00 |
| 575-600 | 3 | 30 | 90 | 100 | 408E105H11AAAAA | \$1608.00 | 408E605H11AAAAA | \$1872.00 | 408E205H11AAAAA | \$1872.00 | 408E405H11AAAAA | \$3156.00 |
| 575-600 | 3 | 50 | 90 | 200 ¹ | 408E105H21AAAAA | \$1734.00 | 408E605H21AAAAA | \$1998.00 | 408E205H21AAAAA | \$1998.00 | 408E405H21AAAAA | \$3282.00 |
| 575-600 | 4 | 60 | 135 | 200 ¹ | 408F105H21AAAAA | \$3054.00 | 408F605H21AAAAA | \$3786.00 | 408F205H21AAAAA | \$3786.00 | 408F405H21AAAAA | \$5034.00 |
| 575-600 | 4 | 100 | 135 | 400 ¹ | 408F105H41AAAAA | \$3144.00 | 408F605H41AAAAA | \$3876.00 | 408F205H41AAAAA | \$3876.00 | 408F405H41AAAAA | \$5124.00 |

¹Oversized enclosure provided as standard.

- NEMA Size 0-6 starters with 115-120Volt, 60-Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
 Example: CR408E108HD1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR408E102HD1AAAAA.
- For ordinary starting duty only
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308, CR408 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-6, Fusible Disconnect Type
 600 Volts Maximum 50/60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). Fuses not included. All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00, GO-10H.**

CR308/408 Fusible Disconnect (Class R Fuse Clips)

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Fuse Clip | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|----------------------|------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|---------------------------|--------------------------|
| | | | Amp Rating | Amp Rating | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 308BT08RA1AAAA | \$573.00 | 408B608RA1AAAA | \$717.00 | 408B208RA1AAAA | \$717.00 | 408B408RA1AAAA | \$1149.00 |
| 200-208 | 1 | 5 | 27 | 30 | 308CT08RA1AAAA | \$603.00 | 408C608RA1AAAA | \$747.00 | 408C208RA1AAAA | \$747.00 | 408C408RA1AAAA | \$1179.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 308CT08RB1AAAA | \$615.00 | 408C608RB1AAAA | \$759.00 | 408C208RB1AAAA | \$759.00 | 408C408RB1AAAA | \$1191.00 |
| 200-208 | 2 | 10 | 45 | 60 | 308DT08RB1AAAA | \$945.00 | 408D608RB1AAAA | \$1149.00 | 408D208RB1AAAA | \$1149.00 | 408D408RB1AAAA | \$1833.00 |
| 200-208 | 3 | 20 | 90 | 100 | 408E108RC1AAAA | \$1596.00 | 408E608RC1AAAA | \$1860.00 | 408E208RC1AAAA | \$1860.00 | 408E408RC1AAAA | \$3144.00 |
| 200-208 | 3 | 25 | 90 | 200 ¹ | 408E108RD1AAAA | \$1728.00 | 408E608RD1AAAA | \$1992.00 | 408E208RD1AAAA | \$1992.00 | 408E408RD1AAAA | \$3276.00 |
| 200-208 | 4 | 40 | 135 | 200 ¹ | 408F108RD1AAAA | \$3048.00 | 408F608RD1AAAA | \$3780.00 | 408F208RD1AAAA | \$3780.00 | 408F408RD1AAAA | \$5028.00 |
| 200-208 | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 200-208 | 6 | 150 | 540 | 600 | 308HH123PAAA | \$17979.00 | 308HH623PAAA | \$20049.00 | 308HH223PAEA | \$20049.00 | 308HH423PAAA ² | \$22779.00 |
| 230-240 | 0 | 3 | 18 | 30 | 308BT03RA1AAAA | \$573.00 | 408B603RA1AAAA | \$717.00 | 408B203RA1AAAA | \$717.00 | 408B403RA1AAAA | \$1149.00 |
| 230-240 | 1 | 5 | 27 | 30 | 308CT03RA1AAAA | \$603.00 | 408C603RA1AAAA | \$747.00 | 408C203RA1AAAA | \$747.00 | 408C403RA1AAAA | \$1179.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 308CT03RB1AAAA | \$615.00 | 408C603RB1AAAA | \$759.00 | 408C203RB1AAAA | \$759.00 | 408C403RB1AAAA | \$1191.00 |
| 230-240 | 2 | 15 | 45 | 60 | 308DT03RB1AAAA | \$945.00 | 408D603RB1AAAA | \$1149.00 | 408D203RB1AAAA | \$1149.00 | 408D403RB1AAAA | \$1833.00 |
| 230-240 | 3 | 25 | 90 | 100 | 408E103RC1AAAA | \$1596.00 | 408E603RC1AAAA | \$1860.00 | 408E203RC1AAAA | \$1860.00 | 408E403RC1AAAA | \$3144.00 |
| 230-240 | 3 | 30 | 90 | 200 ¹ | 408E103RD1AAAA | \$1728.00 | 408E603RD1AAAA | \$1992.00 | 408E203RD1AAAA | \$1992.00 | 408E403RD1AAAA | \$3276.00 |
| 230-240 | 4 | 50 | 135 | 200 ¹ | 408F103RD1AAAA | \$3048.00 | 408F603RD1AAAA | \$3780.00 | 408F203RD1AAAA | \$3780.00 | 408F403RD1AAAA | \$5028.00 |
| 230-240 | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 230-240 | 6 | 200 | 540 | 600 | 308HH103PAAA | \$17979.00 | 308HH603PAAA | \$20049.00 | 308HH203PAEA | \$20049.00 | 308HH403PAAA ² | \$22779.00 |
| 460-480 | 0 | 5 | 18 | 30 | 308BT04R31AAAA | \$585.00 | 408B604R31AAAA | \$729.00 | 408B204R31AAAA | \$729.00 | 408B404R31AAAA | \$1161.00 |
| 460-480 | 1 | 10 | 27 | 30 | 308CT04R31AAAA | \$615.00 | 408C604R31AAAA | \$759.00 | 408C204R31AAAA | \$759.00 | 408C404R31AAAA | \$1191.00 |
| 460-480 | 2 | 25 | 45 | 60 | 308DT04R61AAAA | \$963.00 | 408D604R61AAAA | \$1167.00 | 408D204R61AAAA | \$1167.00 | 408D404R61AAAA | \$1851.00 |
| 460-480 | 3 | 50 | 90 | 100 | 408E104R11AAAA | \$1626.00 | 408E604R11AAAA | \$1890.00 | 408E204R11AAAA | \$1890.00 | 408E404R11AAAA | \$3174.00 |
| 460-480 | 4 | 100 | 135 | 200 ¹ | 408F104R21AAAA | \$3072.00 | 408F604R21AAAA | \$3804.00 | 408F204R21AAAA | \$3804.00 | 408F404R21AAAA | \$5052.00 |
| 460-480 | 5 | 200 | 270 | 400 | 308G104FAA | \$6789.00 | 308G604FAAA | \$8565.00 | 308G204FEA | \$8565.00 | 308G404FAAA | \$11841.00 |
| 460-480 | 6 | 400 | 540 | 600 | 308HH104PAAA | \$17979.00 | 308HH604PAAA | \$20079.00 | 308HH204PAEA | \$20079.00 | 308HH404PAAA ² | \$22779.00 |
| 575-600 | 0 | 5 | 18 | 30 | 308BT05R31AAAA | \$585.00 | 408B605R31AAAA | \$729.00 | 408B205R31AAAA | \$729.00 | 408B405R31AAAA | \$1161.00 |
| 575-600 | 1 | 10 | 27 | 30 | 308CT05R31AAAA | \$615.00 | 408C605R31AAAA | \$759.00 | 408C205R31AAAA | \$759.00 | 408C405R31AAAA | \$1191.00 |
| 575-600 | 2 | 15 | 45 | 30 | 308DT05R31AAAA | \$951.00 | 408D605R31AAAA | \$1155.00 | 408D205R31AAAA | \$1155.00 | 408D405R31AAAA | \$1839.00 |
| 575-600 | 2 | 25 | 45 | 60 | 308DT05R61AAAA | \$963.00 | 408D605R61AAAA | \$1167.00 | 408D205R61AAAA | \$1167.00 | 408D405R61AAAA | \$1851.00 |
| 575-600 | 3 | 30 | 90 | 60 | 408E105R61AAAA | \$1560.00 | 408E605R61AAAA | \$1824.00 | 408E205R61AAAA | \$1824.00 | 408E405R61AAAA | \$3108.00 |
| 575-600 | 3 | 50 | 90 | 100 | 408E105R11AAAA | \$1626.00 | 408E605R11AAAA | \$1890.00 | 408E205R11AAAA | \$1890.00 | 408E405R11AAAA | \$3174.00 |
| 575-600 | 4 | 60 | 135 | 100 ¹ | 408F105R11AAAA | \$3036.00 | 408F605R11AAAA | \$3768.00 | 408F205R11AAAA | \$3768.00 | 408F405R11AAAA | \$5016.00 |
| 575-600 | 4 | 100 | 135 | 200 ¹ | 408F105R21AAAA | \$3072.00 | 408F605R21AAAA | \$3804.00 | 408F205R21AAAA | \$3804.00 | 408F405R21AAAA | \$5052.00 |
| 575-600 | 5 | 200 | 270 | 400 | 308G105FAA | \$6789.00 | 308G605FAAA | \$8565.00 | 308G205FEA | \$8565.00 | 308G405FAAA | \$11841.00 |
| 575-600 | 6 | 400 | 540 | 600 | 308HH105PAAA | \$17979.00 | 308HH605PAAA | \$20052.00 | 308HH205PAEA | \$20052.00 | 308HH405PAAA ² | \$22779.00 |

¹Oversized enclosure provided as standard.

²Painted steel Type 4 enclosure is standard for NEMA Size 6 forms.

• NEMA Size 0-6 starters with 115-120Volt, 60-Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
 Example: CR408D604R61AAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR408D602R61AAAA.

- For ordinary starting duty only
- Motor full load current should not exceed continuous ampere rating of starter.
- HP rating is based on dual element fuses.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code. Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | |
|-----------|--------------------|------------|
| | Standard Enclosure | List Price |
| | CR | GO-10G1 |
| 0 | 308BT | \$546.00 |
| 1 | 308CT | \$576.00 |
| 2 | 308DT | \$912.00 |

Note: All enclosures include external overload reset buttons.

Step 2 (Digits 8, 9) Select Control Voltage

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | Standard Size CPT + 100VA | NEMA Size | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | - | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | - | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | - | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | - | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | - | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | - | | | |
| 24V | 09 | \$0.00 | - | - | - | | | | - | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | 13 | \$420.00 | \$420.00 | \$504.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | 14 | \$420.00 | \$420.00 | \$504.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | 15 | \$420.00 | \$420.00 | \$504.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | 18 | \$420.00 | \$420.00 | \$504.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | 53 | \$474.00 | \$474.00 | \$558.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | 54 | \$474.00 | \$474.00 | \$558.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | 55 | \$474.00 | \$474.00 | \$558.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | 58 | \$474.00 | \$474.00 | \$558.00 |
| 240V/24V w/CPT | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | A3 | \$420.00 | \$420.00 | \$504.00 |
| 480V/24V w/CPT | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | A4 | \$420.00 | \$420.00 | \$504.00 |
| 600V/24V w/CPT | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | A5 | \$420.00 | \$420.00 | \$504.00 |
| 208V/24V w/CPT | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | A8 | \$420.00 | \$420.00 | \$504.00 |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

Step 3 (Digits 10, 11) Select Protective Device

Disconnect without Fuse Clips

| NEMA Size | Code | List Price GO-10G1 |
|-----------|------|--------------------|
| All | 1A | \$0.00 |

Disconnect with Class H Fuse Clips - For use with Non-Time Delay/Single Element Class H Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|-----------------|--------------------|----------|------------------|-----------------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | HA | \$18.00 | 3 | 30 | HA | \$18.00 | 5 | 30 | H3 | \$30.00 | 5 | 30 | H3 | \$30.00 |
| 1 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 30 | H3 | \$30.00 | 10 | 30 | H3 | \$30.00 |
| | | | | | | | | | 10 | 60 | H6 | \$42.00 | | 60 | H6 | \$42.00 |
| 2 | 10 | 100 | HC | \$96.00 | 15 | 100 | HC | \$96.00 | 15 | 60 | H6 | \$42.00 | 20 | 60 | H6 | \$42.00 |
| | | | | | | | | | 25 | 100 | H1 ¹ | \$108.00 | 25 | 100 | H1 ¹ | \$108.00 |

¹Oversized enclosure included as standard.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR308 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Step 3 (Digits 10, 11) Select Protective Device (continued)

Disconnect with Class R Fuse Clips - For use with Time Delay/Dual Element Class RK1/RK5 Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | RA | \$27.00 | 3 | 30 | RA | \$27.00 | 5 | 30 | R3 | \$39.00 | 5 | 30 | R3 | \$39.00 |
| 1 | 5 | 30 | RA | \$27.00 | 5 | 30 | RA | \$27.00 | 10 | 30 | R3 | \$39.00 | 10 | 30 | R3 | \$39.00 |
| | 7 1/2 | 60 | RB | \$39.00 | 7 1/2 | 60 | RB | \$39.00 | | | | | | | | |
| 2 | 10 | 60 | RB | \$33.00 | 15 | 60 | RB | \$33.00 | | | | | 15 | 30 | R3 | \$39.00 |
| | | | | | | | | | 25 | 60 | R6 | \$51.00 | 25 | 60 | R6 | \$51.00 |

Disconnect with Class J Fuse Clips - For use with Time Delay/Dual Element Class J Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | J3 | \$48.00 | 3 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 |
| 1 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 |
| | 7 1/2 | 60 | J6 | \$48.00 | 7 1/2 | 60 | J6 | \$48.00 | | | | | | | | |
| 2 | 10 | 60 | J6 | \$72.00 | 15 | 60 | J6 | \$72.00 | | | | | 15 | 30 | J3 | \$60.00 |
| | | | | | | | | | 25 | 60 | J6 | \$72.00 | 25 | 60 | J6 | \$72.00 |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |

Optional Ranges

| OL Amp Range | NEMA SIZE | |
|--------------|-----------|---|
| | 0 & 1 | 2 |
| 0.4 - 0.85 | C | - |
| 0.8 - 1.7 | D | - |
| 1.6 - 3.4 | E | - |
| 3.2 - 6.8 | F | - |
| 6.5 - 13.5 | G | G |
| 13 - 27 | H | H |
| 25 - 50 | - | J |
| 17 - 35 | - | - |
| 35 - 70 | - | - |
| 65 - 135 | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ² | \$264.00 |
| 4NC | M ² | \$264.00 |
| 2NO-2NC | N ² | \$264.00 |
| 3NO-1NC | p ² | \$264.00 |
| 1NO-3NC | R ² | \$264.00 |

²Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-36.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308 Magnetic Starters

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 |
|-------------------|------|-----------------------|
| None ³ | A | \$0.00 |

³Phase Failure Relay is not available for CR308 series standard enclosures.
If this is required for your application, use CR408 series oversized enclosure.
See page 1-37.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|-----------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty) Type | Color - Functionality | Code | List Price GO-10G1 |
|-------------------------------------|---|----------------|-----------------------|
| None | | A | \$0.00 |
| | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ⁴ | \$228.00 |
| | Green - Thru NC Aux Contact | N ⁴ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ⁵ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ⁴ | \$390.00 |
| Standard Lights | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ⁴ | \$552.00 |
| | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| | Red - Thru NO Aux Contact | 3 ⁴ | \$228.00 |
| | Green - Thru NC Aux Contact | 4 ⁴ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ⁵ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ⁴ | \$390.00 |
| LED Lights | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ⁴ | \$552.00 |
| | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ⁴ | \$246.00 |
| | Green - Thru NC Aux Contact | D ⁴ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ⁵ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ⁴ | \$426.00 |
| Push-To-Test Lights | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | Y ⁴ | \$606.00 |

⁴Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

⁵Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-35, which are for customer/field connections.

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 |
|--------|------|-----------------------|
| None | A | \$0.00 |

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
 Part Number Configuration
 Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
 Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | | | NEMA Type 3R | | | | NEMA Type 12 | | | | NEMA Type 4/4X | | | |
|----------------|--------------------|------------|---------------------|------------|--------------------|------------|---------------------|------------|--------------------|------------|---------------------|------------|--------------------|------------|---------------------|------------|
| | Standard Enclosure | List Price | Oversized Enclosure | List Price | Standard Enclosure | List Price | Oversized Enclosure | List Price | Standard Enclosure | List Price | Oversized Enclosure | List Price | Standard Enclosure | List Price | Oversized Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | Use CR308 | | 408B5 | \$682.00 | 408B6 | \$690.00 | 408BR | \$826.00 | 408B2 | \$690.00 | 408B7 | \$826.00 | 408B4 | \$1122.00 | 408BS | \$1368.00 |
| 1 | Use CR308 | | 408C5 | \$712.00 | 408C6 | \$720.00 | 408CR | \$856.00 | 408C2 | \$720.00 | 408C7 | \$856.00 | 408C4 | \$1152.00 | 408CS | \$1398.00 |
| 2 | Use CR308 | | 408D5 | \$1048.00 | 408D6 | \$1116.00 | 408DR | \$1252.00 | 408D2 | \$1116.00 | 408D7 | \$1252.00 | 408D4 | \$1800.00 | 408DS | \$2046.00 |
| 3 | 408E1 | \$1518.00 | 408E5 ¹ | \$1740.00 | 408E6 | \$1782.00 | 408ER ¹ | \$2004.00 | 408E2 | \$1782.00 | 408E7 ¹ | \$2004.00 | 408E4 | \$3066.00 | 408ES ¹ | \$3624.00 |
| 4 ² | 408F1 | \$2928.00 | | | 408F6 | \$3660.00 | | | 408F2 | \$3660.00 | | | 408F4 | \$4908.00 | | |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

¹Oversized enclosure provided as standard with 200Amp Fusible Disconnect.

²Oversized enclosure provided as standard with any NEMA Size 4 Fusible/Nonfusible.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | List Price GO-10G1 | List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ³ | 09 | \$0.00 | - | | - | | | | | |
| 240V/120V w/CPT | - | | - | | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | | - | | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | | - | | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | | - | | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | | - | | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | | - | | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | | - | | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | | - | | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ³ | - | | - | | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ³ | - | | - | | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ³ | - | | - | | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ³ | - | | - | | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

³24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|---|---|---|----------------------------|----------------------------|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price ⁴ GO-10G1 | 1 List Price ⁴ GO-10G1 | 2 List Price ⁴ GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ³ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ³ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ³ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ³ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ³ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

³24V coils not available for NEMA size 3 & 4.

⁴Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-37, and adjust price accordingly.

Step 3 (Digits 10, 11) Select Protective Device

Disconnect without Fuse Clips

| NEMA Size | Code | List Price GO-10G1 |
|-----------|-----------------|-----------------------|
| All | 1A ² | \$0.00 |

Disconnect with Class H Fuse Clips - For use with Non-Time Delay/Single Element Class H Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|----------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | HA | \$18.00 | 3 | 30 | HA | \$18.00 | 5 | 30 | H3 | \$30.00 | 5 | 30 | H3 | \$30.00 |
| 1 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 30 | H3 | \$30.00 | 10 | 30 | H3 | \$30.00 |
| | | | | | | | | | 10 | 60 | H6 | \$42.00 | | 60 | H6 | \$42.00 |
| 2 | 10 | 100 | HC | \$96.00 | 15 | 100 | HC | \$96.00 | 15 | 60 | H6 | \$42.00 | 20 | 60 | H6 | \$42.00 |
| | | | | | | | | | 25 | 100 | H1 | \$108.00 | 25 | 100 | H1 | \$108.00 |
| 3 ¹ | 25 | 200 | HD | \$192.00 | 30 | 200 | HD | \$192.00 | 30 | 100 | H1 | \$90.00 | 30 | 100 | H1 | \$90.00 |
| | | | | | | | | | 50 | 200 | H2 | \$216.00 | 50 | 200 | H2 | \$216.00 |
| 4 ² | 40 | 400 | HE | \$216.00 | 50 | 400 | HE | \$216.00 | 60 | 200 | H2 | \$126.00 | 60 | 200 | H2 | \$126.00 |
| | | | | | | | | | 100 | 400 | H4 | \$216.00 | 100 | 400 | H4 | \$216.00 |

¹Oversized enclosure provided as standard with 200Amp Fusible Disconnect

²Oversized enclosure provided as standard with any NEMA Size 4 Fusible/Nonfusible

Disconnect with Class R Fuse Clips - For use with Time Delay/Dual Element Class RK1/RK5 Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|----------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | RA | \$27.00 | 3 | 30 | RA | \$27.00 | 5 | 30 | R3 | \$39.00 | 5 | 30 | R3 | \$39.00 |
| 1 | 5 | 30 | RA | \$27.00 | 5 | 30 | RA | \$27.00 | 10 | 30 | R3 | \$39.00 | 10 | 30 | R3 | \$39.00 |
| | 7 1/2 | 60 | RB | \$39.00 | 7 1/2 | 60 | RB | \$39.00 | | | | | | | | |
| 2 | 10 | 60 | RB | \$33.00 | 15 | 60 | RB | \$33.00 | | 30 | R3 | \$39.00 | 15 | 30 | R3 | \$39.00 |
| | | | | | | | | | 25 | 60 | R6 | \$51.00 | 25 | 60 | R6 | \$51.00 |
| 3 ¹ | 20 | 100 | RC | \$78.00 | 25 | 100 | RC | \$78.00 | | 60 | R6 | \$42.00 | 30 | 60 | R6 | \$42.00 |
| | 25 | 200 | RD | \$210.00 | 30 | 200 | RD | \$210.00 | 50 | 100 | R1 | \$108.00 | 50 | 100 | R1 | \$108.00 |
| 4 ² | 40 | 200 | RD | \$120.00 | 50 | 200 | RD | \$120.00 | | 100 | R1 | \$108.00 | 60 | 100 | R1 | \$108.00 |
| | | | | | | | | | 100 | 200 | R2 | \$144.00 | 100 | 200 | R2 | \$144.00 |

¹Oversized enclosure provided as standard with 200Amp Fusible Disconnect

²Oversized enclosure provided as standard with any NEMA Size 4 Fusible/Nonfusible



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 3 (Digits 10, 11) Select Protective Device (continued)

Disconnect with Class J Fuse Clips - For use with Time Delay/Dual Element Class J Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|----------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | J3 | \$48.00 | 3 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 |
| 1 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 |
| | 7 1/2 | 60 | J6 | \$48.00 | 7 1/2 | 60 | J6 | \$48.00 | | | | | | | | |
| 2 | 10 | 60 | J6 | \$72.00 | 15 | 60 | J6 | \$72.00 | 25 | 60 | J6 | \$72.00 | 15 | 30 | J3 | \$60.00 |
| | | | | | | | | | | | | | | | | |
| 3 ¹ | 20 | 100 | J1 | \$162.00 | 25 | 100 | J1 | \$162.00 | 50 | 100 | J1 | \$162.00 | 50 | 100 | J1 | \$162.00 |
| | 25 | 200 | J2 | \$246.00 | 30 | 200 | J2 | \$246.00 | | | | | | | | |
| 4 ² | 40 | 200 | J2 | \$246.00 | 50 | 200 | J2 | \$246.00 | 100 | 200 | J2 | \$246.00 | 100 | 200 | J2 | \$246.00 |
| | | | | | | | | | | | | | | | | |

¹Oversized enclosure provided as standard with 200Amp Fusible Disconnect

²Oversized enclosure provided as standard with any NEMA Size 4 Fusible/Nonfusible

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| 3 | 17 - 35 | | | | | | | 30 | K |
| | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| | 65 - 135 | 25 | M | 30 | M | | | | |
| 4 | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ⁵ | \$264.00 |
| 4NC | M ⁵ | \$264.00 |
| 2NO-2NC | N ⁵ | \$264.00 |
| 3NO-1NC | P ⁵ | \$264.00 |
| 1NO-3NC | R ⁵ | \$264.00 |

⁵Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-40.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|----------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C ^{2,7} | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D ^{2,7} | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ^{4,7} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ^{4,7} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ^{4,7} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ^{4,7} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ^{2,6} | \$212.00 | \$342.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ^{2,6,7} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ^{2,6,7} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{2,4,6,7} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,4,6,7} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,4,6,7} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,4,6,7} | \$637.00 | - | \$773.00 | - | \$773.00 | - |

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-37, and adjust price accordingly.

⁴Available for Type 1 Enclosure only.

⁶Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

⁷Requires Oversized Enclosure for phase failure relay.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|--------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|---------------------------------------|---|-----------------|--------------------|
| None | | A | \$0.00 |
| Standard Lights | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ⁹ | \$228.00 |
| | Green - Thru NC Aux Contact | N ⁹ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ¹⁰ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ⁹ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ⁹ | \$552.00 |
| LED Lights | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| | Red - Thru NO Aux Contact | 3 ⁹ | \$228.00 |
| | Green - Thru NC Aux Contact | 4 ⁹ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ¹⁰ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ⁹ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ⁹ | \$552.00 |
| Push-To-Test Lights | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ⁹ | \$246.00 |
| | Green - Thru NC Aux Contact | D ⁹ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ¹⁰ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ⁹ | \$426.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | V ⁹ | \$606.00 |

⁹Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

¹⁰Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-39, which are for customer/field connections.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|----------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ^{4,11} | \$170.00 | \$222.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ^{4,11} | \$340.00 | \$444.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D ⁴ | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E ⁴ | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ^{4,12} | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ^{4,11} | \$279.00 | \$331.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ^{4,11} | \$449.00 | \$553.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ^{4,12} | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{4,11,12} | \$569.00 | \$673.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ^{4,11} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ^{4,11} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ^{4,11} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ^{4,11} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{4,11,12} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{4,11,12} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁴Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-37, and adjust price accordingly.

¹¹Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

¹²Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR307, CR407 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-6, Thermal Magnetic Circuit Breaker Type
 600 Volts Maximum 50/60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). Fuses not included. All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00, GO-10H.**

CR307/407 Thermal Magnetic Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| | | | | | 200-208 | 0 | 2 | 18 | 15 | 307B08TC1AAAAA | \$762.00 | 407B608TC1AAAAA |

¹For ordinary starting duty only.

²Painted steel Type 4 enclosure is standard for NEMA Size 6 forms.

- NEMA Size 0-6 starters with 115-120 Volt, 60-Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
 Example: CR407B604TC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR407B602TC1AAAAA.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR307 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type
 Part Number Configuration
 Valid for NEMA Sizes 0-2, Type 1 Standard Enclosure

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|--------|---|--|--|--------|--------|--|--|--|--------|--------|--------|--------|--------|--------|--------|--|--|
| C | R | | | | | | | | | | | | | | | | |
| Steps: | | | | Step 1 | Step 2 | | | | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 | | |

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code. Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | |
|-----------|--------------------|------------|
| | Standard Enclosure | List Price |
| | CR | GO-10G1 |
| 0 | 307BT | \$588.00 |
| 1 | 307CT | \$618.00 |
| 2 | 307DT | \$948.00 |

Note: All enclosures include external overload reset buttons.

Step 2 (Digits 8, 9) Select Control Voltage

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | Standard Size CPT + 100VA | NEMA Size | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | - | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | - | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | - | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | - | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | - | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | - | | | |
| 24V | 09 | \$0.00 | - | - | - | | | | - | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | 13 | \$420.00 | \$420.00 | \$504.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | 14 | \$420.00 | \$420.00 | \$504.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | 15 | \$420.00 | \$420.00 | \$504.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | 18 | \$420.00 | \$420.00 | \$504.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | 53 | \$474.00 | \$474.00 | \$558.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | 54 | \$474.00 | \$474.00 | \$558.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | 55 | \$474.00 | \$474.00 | \$558.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | 58 | \$474.00 | \$474.00 | \$558.00 |
| 240V/24V w/CPT | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | A3 | \$420.00 | \$420.00 | \$504.00 |
| 480V/24V w/CPT | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | A4 | \$420.00 | \$420.00 | \$504.00 |
| 600V/24V w/CPT | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | A5 | \$420.00 | \$420.00 | \$504.00 |
| 208V/24V w/CPT | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | A8 | \$420.00 | \$420.00 | \$504.00 |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

Step 3 (Digits 10, 11) Select Protective Device

Thermal-Mag Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 |
| 0 | 2 | 15 | TC | \$174.00 | 3 | 15 | TC | \$174.00 | 5 | 15 | TC | \$174.00 | 5 | 15 | TC | \$174.00 |
| | 3 | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | 20 | TD | \$174.00 |
| | 15 | TC | \$174.00 | 15 | TC | \$174.00 | 15 | TC | \$174.00 | 7 1/2 | 15 | TC | \$174.00 | | | |
| | 20 | TD | \$174.00 | 20 | TD | \$174.00 | 7 1/2 | 20 | TD | \$174.00 | 10 | 20 | TD | \$174.00 | | |
| 1 | 25 | TE | \$174.00 | 5 | 25 | TE | \$174.00 | 10 | 25 | TE | \$174.00 | 10 | 25 | TE | \$174.00 | |
| | 5 | 30 | TF | | \$174.00 | 30 | TF | | \$174.00 | 30 | TF | | \$174.00 | 30 | TF | \$174.00 |
| | 7 1/2 | 40 | TG | \$174.00 | 7 1/2 | 40 | TG | \$174.00 | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | |
| | 30 | TF | \$174.00 | 30 | TF | \$174.00 | 30 | TF | \$174.00 | 15 | 30 | TF | \$174.00 | | | |
| 2 | 40 | TG | \$174.00 | 40 | TG | \$174.00 | 15 | 40 | TG | \$174.00 | 20 | 40 | TG | \$174.00 | | |
| | 10 | 50 | TH | \$174.00 | 10 | 50 | TH | \$174.00 | 20 | 50 | TH | \$174.00 | 25 | 50 | TH | \$174.00 |
| | 60 | TJ | \$270.00 | 60 | TJ | \$270.00 | 25 | 60 | TJ | \$270.00 | | 60 | TJ | \$270.00 | | |
| | 70 | TK | \$270.00 | 15 | 70 | TK | \$270.00 | 70 | TK | \$270.00 | | 70 | TK | \$270.00 | | |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR307 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type

Part Number Configuration

Valid for NEMA Sizes 0-2, Type 1 Standard Enclosure

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|--------------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| 1 | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | 10 | G |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |

Optional Ranges

| OL Amp Range | NEMA SIZE | |
|--------------|-----------|---|
| | 0 & 1 | 2 |
| 0.4 - 0.85 | C | - |
| 0.8 - 1.7 | D | - |
| 1.6 - 3.4 | E | - |
| 3.2 - 6.8 | F | - |
| 6.5 - 13.5 | G | G |
| 13 - 27 | H | H |
| 25 - 50 | - | J |
| 17 - 35 | - | - |
| 35 - 70 | - | - |
| 65 - 135 | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ¹ | \$264.00 |
| 4NC | M ¹ | \$264.00 |
| 2NO-2NC | N ¹ | \$264.00 |
| 3NO-1NC | P ¹ | \$264.00 |
| 1NO-3NC | R ¹ | \$264.00 |

¹Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-45.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 |
|-------------------|------|-----------------------|
| None ² | A | \$0.00 |

²Phase Failure Relay is not available for CR307 series standard enclosures. If this is required for your application, use CR407 series oversized enclosure. See page 1-46.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|-----------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR307 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA Sizes 0-2, Type 1 Standard Enclosure

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty) Type | Color - Functionality | Code | List Price GO-10G1 |
|----------------------------------|---|----------------|-----------------------|
| None | | A | \$0.00 |
| | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ³ | \$228.00 |
| | Green - Thru NC Aux Contact | N ³ | \$228.00 |
| Standard Lights | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ⁴ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ³ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ³ | \$552.00 |
| | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| LED Lights | Red - Thru NO Aux Contact | 3 ³ | \$228.00 |
| | Green - Thru NC Aux Contact | 4 ³ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ⁴ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ³ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ³ | \$552.00 |
| Push-To-Test Lights | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ³ | \$246.00 |
| | Green - Thru NC Aux Contact | D ³ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ⁴ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ³ | \$426.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | Y ³ | \$606.00 |

³Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

⁴Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-44, which are for customer/field connections.

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 |
|--------|------|-----------------------|
| None | A | \$0.00 |

GENERAL NOTE:

On NEMA Size 3 & 4 starters if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR407 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type

Part Number Configuration

Valid for NEMA Sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | | | NEMA Type 3R | | | | NEMA Type 12 | | | | NEMA Type 4/4X | | | |
|-----------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|
| | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 |
| 0 | Use CR307 | | 407B5 | \$724.00 | 407B6 | \$732.00 | 407BR | \$868.00 | 407B2 | \$732.00 | 407B7 | \$868.00 | 407B4 | \$1164.00 | 407BS | \$1410.00 |
| 1 | Use CR307 | | 407C5 | \$754.00 | 407C6 | \$762.00 | 407CR | \$898.00 | 407C2 | \$762.00 | 407C7 | \$898.00 | 407C4 | \$1194.00 | 407CS | \$1440.00 |
| 2 | Use CR307 | | 407D5 | \$1084.00 | 407D6 | \$1152.00 | 407DR | \$1288.00 | 407D2 | \$1152.00 | 407D7 | \$1288.00 | 407D4 | \$1836.00 | 407DS | \$2082.00 |
| 3 | 407E1 | \$1632.00 | 407E5 | \$1854.00 | 407E6 | \$1896.00 | 407ER | \$2118.00 | 407E2 | \$1896.00 | 407E7 | \$2118.00 | 407E4 | \$3180.00 | 407ES | \$3738.00 |
| 4 | 407F1 | \$3582.00 | 407F5 | \$3972.00 | 407F6 | \$4314.00 | 407FR | \$4704.00 | 407F2 | \$4314.00 | 407F7 | \$4704.00 | 407F4 | \$5562.00 | 407FS | \$6249.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | | | |
|-------------------------------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|--|--|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price ² GO-10G1 | 1 List Price ² GO-10G1 | 2 List Price ² GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | | | |
| 120V | - | | | | | | - | | | | | | | |
| 240V | - | | | | | | - | | | | | | | |
| 480V | - | | | | | | - | | | | | | | |
| 600V | - | | | | | | - | | | | | | | |
| 208V | - | | | | | | - | | | | | | | |
| 24V ¹ | - | | | | | | - | | | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | | |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | | |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | | |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | | |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | | |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | | |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | | |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | | |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - | | |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - | | |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - | | |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - | | |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, and adjust price accordingly.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR407 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA Sizes 0-4

Step 3 (Digits 10, 11) Select Protective Device

Thermal-Mag Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | | | | |
|-----------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|------|--------------------|----------|--------|----------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | | | |
| 0 | 2 | 15 | TC | \$174.00 | 3 | 15 | TC | \$174.00 | 5 | 15 | TC | \$174.00 | 5 | 15 | TC | \$174.00 | | | |
| | 3 | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | | |
| 1 | 15 | TC | \$174.00 | | 15 | TC | \$174.00 | | 15 | TC | \$174.00 | | 7 1/2 | 15 | TC | \$174.00 | | | |
| | 20 | TD | \$174.00 | | 20 | TD | \$174.00 | | 7 1/2 | 20 | TD | \$174.00 | | 10 | 20 | TD | \$174.00 | | |
| | 25 | TE | \$174.00 | | 5 | 25 | TE | \$174.00 | | 10 | 25 | TE | \$174.00 | | 25 | TE | \$174.00 | | |
| | 5 | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | | |
| | 7 1/2 | 40 | TG | \$174.00 | | 7 1/2 | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | | |
| 2 | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 15 | 30 | TF | \$174.00 | | | |
| | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | | 15 | 40 | TG | \$174.00 | | 20 | 40 | TG | \$174.00 | | |
| | 10 | 50 | TH | \$174.00 | | 10 | 50 | TH | \$174.00 | | 20 | 50 | TH | \$174.00 | | 25 | 50 | TH | \$174.00 |
| | 60 | TJ | \$270.00 | | 60 | TJ | \$270.00 | | 25 | 60 | TJ | \$270.00 | | 60 | TJ | \$270.00 | | | |
| | 70 | TK | \$270.00 | | 15 | 70 | TK | \$270.00 | | 70 | TK | \$270.00 | | 70 | TK | \$270.00 | | | |
| 3 | 50 | TH | \$174.00 | | 50 | TH | \$174.00 | | 50 | TH | \$174.00 | | 30 | 50 | TH | \$174.00 | | | |
| | 60 | TJ | \$0.00 | | 60 | TJ | \$0.00 | | 30 | 60 | TJ | \$0.00 | | 60 | TJ | \$0.00 | | | |
| | 70 | TK | \$270.00 | | 70 | TK | \$270.00 | | 70 | TK | \$270.00 | | 40 | 70 | TK | \$270.00 | | | |
| | 15 | 80 | TL | \$0.00 | | 80 | TL | \$0.00 | | 40 | 80 | TL | \$0.00 | | 50 | 80 | TL | \$0.00 | |
| | 90 | TM | \$0.00 | | 20 | 90 | TM | \$0.00 | | 90 | TM | \$0.00 | | 90 | TM | \$0.00 | | | |
| 4 | 20 | 100 | TN | \$0.00 | | 100 | TN | \$0.00 | | 50 | 100 | TN | \$0.00 | | 100 | TN | \$0.00 | | |
| | 110 | TP | \$0.00 | | 25 | 110 | TP | \$0.00 | | 110 | TP | \$0.00 | | 110 | TP | \$0.00 | | | |
| | 25 | 125 | TQ | \$630.00 | | 30 | 125 | TQ | \$630.00 | | 125 | TQ | \$630.00 | | 125 | TQ | \$630.00 | | |
| | 100 | TN | \$603.00 | | 100 | TN | \$603.00 | | 100 | TN | \$603.00 | | 60 | 100 | TN | \$603.00 | | | |
| | 125 | TQ | \$0.00 | | 125 | TQ | \$0.00 | | 60 | 125 | TQ | \$0.00 | | 75 | 125 | TQ | \$0.00 | | |
| 4 | 30 | 150 | TR | \$0.00 | | 150 | TR | \$0.00 | | 75 | 150 | TR | \$0.00 | | 100 | 150 | TR | \$0.00 | |
| | 175 | TS | \$603.00 | | 40 | 175 | TS | \$603.00 | | 175 | TS | \$603.00 | | 175 | TS | \$603.00 | | | |
| | 40 | 200 | TT | \$0.00 | | 50 | 200 | TT | \$0.00 | | 100 | 200 | TT | \$0.00 | | 200 | TT | \$0.00 | |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| 3 | 17 - 35 | | | | | | | 30 | K |
| | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| 4 | 65 - 135 | 25 | M | 30 | M | | | | |
| | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR407 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA Sizes 0-4

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ³ | \$264.00 |
| 4NC | M ³ | \$264.00 |
| 2NO-2NC | N ³ | \$264.00 |
| 3NO-1NC | P ³ | \$264.00 |
| 1NO-3NC | R ³ | \$264.00 |

³Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-49.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|----------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C ² | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D ² | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ^{2,5} | \$212.00 | \$342.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ^{2,5,6} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ^{2,5,6} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | P ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-46, and adjust price accordingly.

⁴Available for Type 1 Enclosure only.

⁵Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

⁶Requires Oversized Enclosure for phase failure relay.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|-----------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR407 Magnetic Starters

Section 1

Nonreversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA Sizes 0-4

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty) | | | List Price GO-10G1 |
|-----------------------------|---|----------------|-----------------------|
| Type | Color - Functionality | Code | |
| None | | A | \$0.00 |
| | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ⁷ | \$228.00 |
| Standard Lights | Green - Thru NC Aux Contact | N ⁷ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ⁸ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ⁷ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ⁷ | \$552.00 |
| | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| | Red - Thru NO Aux Contact | 3 ⁷ | \$228.00 |
| LED Lights | Green - Thru NC Aux Contact | 4 ⁷ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ⁸ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ⁷ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ⁷ | \$552.00 |
| | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ⁷ | \$246.00 |
| Push-To-Test Lights | Green - Thru NC Aux Contact | D ⁷ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ⁸ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ⁷ | \$426.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | Y ⁷ | \$606.00 |

⁷Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

⁸Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-48, which are for customer/field connections.

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|---------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ^{2,9} | \$170.00 | \$222.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ^{2,9} | \$340.00 | \$444.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D ² | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E ² | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ^{2,10} | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ^{2,9} | \$279.00 | \$331.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ^{2,9} | \$449.00 | \$553.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ^{2,10} | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{2,9,10} | \$569.00 | \$673.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ^{2,9} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ^{2,9} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ^{2,9} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ^{2,9} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{2,9,10} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{2,9,10} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-46, and adjust price accordingly.

⁹Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

¹⁰Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR387, CR487 Mag-Break Magnetic Starters

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 200 Horsepower Maximum
 NEMA Sizes 0-5
 600 Volts Maximum 50/60 Hertz

Section 1

Application

The CR387/487 nonreversing starters are designed for more accurate fault protection for motor circuits by utilizing Spectra™ Mag-Break motor circuit protectors for sizes 0-4 and Type TJC for size 5.

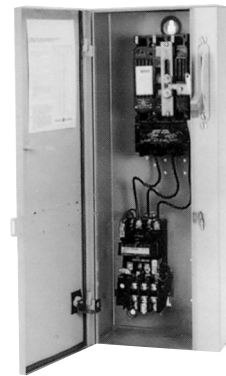
Spectra™ Features

- Spectra™ Mag-Break motor circuit protector**—provides protection against faults. Has adjustable trip.
- Meets NEC standards**—continuous current ratings and adjustable instantaneous trip ranges meet NEC standards on motor full-load and locked rotor currents.
- Can eliminate nuisance tripping and provide fault protection**—by setting the Mag-Break instantaneous trip point just above transient motor inrush current.
- Less than one cycle clearing time**—to open and clear a fault.

Product Number Selection Instructions

1. Order by complete Product Number.
 Example: A size 2 combination starter is required to control a 15-hp, 230-Volt, 60-Hertz nonreversing motor with FLA of 42.0. The starter will include a Mag-Break motor circuit protector, 230-240 Volt, 60-Hertz coil, and a three-leg block overload. Order 1—CR387DT03MJ1AAAAA at **\$1122.00, GO-10G1**, and 3—CR123C460B heaters. **List Price \$9.00 each, GO-10H.**
2. Order special features or forms not listed by complete description using a listed Product Number as reference. Example: Similar to CR387DT03MJ1AAAAA except with OFF-ON selector switch in cover.
 Total **List Price \$1170.00, GO-10G1.**
3. **50 Hertz Starters**
 Pricing for 50 Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. Listed prices for 460-480 Volt also apply to 380-415 Volt, 50 Hertz. See page 1-4 for 380-415 Volt horsepower ratings.
4. **Product Notes**
 Motor full-load current should not exceed continuous ampere rating of starter.

 Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159.



Typical CR387 Starter with Mag-Break Protector with Current Limiter

Reference Publications

| Instructions | |
|--------------|--------------------|
| NEMA Size | Publication Number |
| 0,1 | GEH-5190 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |

CR387, CR487, Mag-Break Magnetic Starters- Contents

| | |
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NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR387, CR487 Mag-Break Magnetic Starters

Section 1

Nonreversing, Combination NEMA Type 1, 3R, 12, 4/4X
NEMA Sizes 0-5, Mag-Break Circuit Breaker Type
600 Volts Maximum 50/60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR387/487 Mag-Break Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|--------------------|-----------------------|------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 1 | 18 | 7 | 387BT08MB1AAAAA | \$762.00 | 487B608MB1AAAAA | \$906.00 | 487B208MB1AAAAA | \$906.00 | 487B408MB1AAAAA | \$1338.00 |
| 200-208 | 0 | 3 | 18 | 15 | 387BT08MC1AAAAA | \$762.00 | 487B608MC1AAAAA | \$906.00 | 487B208MC1AAAAA | \$906.00 | 487B408MC1AAAAA | \$1338.00 |
| 200-208 | 1 | 5 | 27 | 25 | 387CT08ME1AAAAA | \$792.00 | 487C608ME1AAAAA | \$936.00 | 487C208ME1AAAAA | \$936.00 | 487C408ME1AAAAA | \$1368.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 387CT08MG1AAAAA | \$792.00 | 487C608MG1AAAAA | \$936.00 | 487C208MG1AAAAA | \$936.00 | 487C408MG1AAAAA | \$1368.00 |
| 200-208 | 2 | 10 | 45 | 50 | 387DT08MH1AAAAA | \$1122.00 | 487D608MH1AAAAA | \$1326.00 | 487D208MH1AAAAA | \$1326.00 | 487D408MH1AAAAA | \$2010.00 |
| 200-208 | 3 | 15 | 90 | 70 | 487E108MK1AAAAA | \$1632.00 | 487E608MK1AAAAA | \$1896.00 | 487E208MK1AAAAA | \$1896.00 | 487E408MK1AAAAA | \$3180.00 |
| 200-208 | 3 | 20 | 90 | 80 | 487E108ML1AAAAA | \$1632.00 | 487E608ML1AAAAA | \$1896.00 | 487E208ML1AAAAA | \$1896.00 | 487E408ML1AAAAA | \$3180.00 |
| 200-208 | 3 | 25 | 90 | 100 | 487E108MN1AAAAA | \$1632.00 | 487E608MN1AAAAA | \$1896.00 | 487E208MN1AAAAA | \$1896.00 | 487E408MN1AAAAA | \$3180.00 |
| 200-208 | 4 | 30 | 135 | 125 | 487F108MQ1AAAAA | \$3582.00 | 487F608MQ1AAAAA | \$4314.00 | 487F208MQ1AAAAA | \$4314.00 | 487F408MQ1AAAAA | \$5562.00 |
| 200-208 | 4 | 40 | 135 | 150 | 487F108MR1AAAAA | \$3582.00 | 487F608MR1AAAAA | \$4314.00 | 487F208MR1AAAAA | \$4314.00 | 487F408MR1AAAAA | \$5562.00 |
| 200-208 | 5 | 75 | 270 | 400 | 387G123CAAA | \$8307.00 | 387G623CAAA | \$9627.00 | 387G223CAUA | \$9627.00 | 387G423CAAA | \$13359.00 |
| 230-240 | 0 | 1/2 | 18 | 3 | 387BT03MA1AAAAA | \$762.00 | 487B603MA1AAAAA | \$906.00 | 487B203MA1AAAAA | \$906.00 | 487B403MA1AAAAA | \$1338.00 |
| 230-240 | 0 | 1 | 18 | 7 | 387BT03MB1AAAAA | \$762.00 | 487B603MB1AAAAA | \$906.00 | 487B203MB1AAAAA | \$906.00 | 487B403MB1AAAAA | \$1338.00 |
| 230-240 | 0 | 3 | 18 | 15 | 387BT03MC1AAAAA | \$762.00 | 487B603MC1AAAAA | \$906.00 | 487B203MC1AAAAA | \$906.00 | 487B403MC1AAAAA | \$1338.00 |
| 230-240 | 1 | 5 | 27 | 25 | 387CT03ME1AAAAA | \$792.00 | 487C603ME1AAAAA | \$936.00 | 487C203ME1AAAAA | \$936.00 | 487C403ME1AAAAA | \$1368.00 |
| 230-240 | 1 | 7 1/2 | 27 | 30 | 387CT03MF1AAAAA | \$792.00 | 487C603MF1AAAAA | \$936.00 | 487C203MF1AAAAA | \$936.00 | 487C403MF1AAAAA | \$1368.00 |
| 230-240 | 2 | 10 | 45 | 40 | 387DT03MG1AAAAA | \$1122.00 | 487D603MG1AAAAA | \$1326.00 | 487D203MG1AAAAA | \$1326.00 | 487D403MG1AAAAA | \$2010.00 |
| 230-240 | 2 | 15 | 45 | 60 | 387DT03MJ1AAAAA | \$1122.00 | 487D603MJ1AAAAA | \$1326.00 | 487D203MJ1AAAAA | \$1326.00 | 487D403MJ1AAAAA | \$2010.00 |
| 230-240 | 3 | 20 | 90 | 70 | 487E103MK1AAAAA | \$1632.00 | 487E603MK1AAAAA | \$1896.00 | 487E203MK1AAAAA | \$1896.00 | 487E403MK1AAAAA | \$3180.00 |
| 230-240 | 3 | 25 | 90 | 90 | 487E103MM1AAAAA | \$1632.00 | 487E603MM1AAAAA | \$1896.00 | 487E203MM1AAAAA | \$1896.00 | 487E403MM1AAAAA | \$3180.00 |
| 230-240 | 3 | 30 | 90 | 100 | 487E103MN1AAAAA | \$1632.00 | 487E603MN1AAAAA | \$1896.00 | 487E203MN1AAAAA | \$1896.00 | 487E403MN1AAAAA | \$3180.00 |
| 230-240 | 4 | 40 | 135 | 150 | 487F103MR1AAAAA | \$3582.00 | 487F603MR1AAAAA | \$4314.00 | 487F203MR1AAAAA | \$4314.00 | 487F403MR1AAAAA | \$5562.00 |
| 230-240 | 4 | 50 | 135 | 175 | 487F103MS1AAAAA | \$3582.00 | 487F603MS1AAAAA | \$4314.00 | 487F203MS1AAAAA | \$4314.00 | 487F403MS1AAAAA | \$5562.00 |
| 230-240 | 5 | 100 | 270 | 400 | 387G103CAAA | \$8307.00 | 387G603CAAA | \$9627.00 | 387G203CAUA | \$9627.00 | 387G403CAAA | \$13359.00 |
| 460-480 | 0 | 1 | 18 | 3 | 387BT04MA1AAAAA | \$762.00 | 487B604MA1AAAAA | \$906.00 | 487B204MA1AAAAA | \$906.00 | 487B404MA1AAAAA | \$1338.00 |
| 460-480 | 0 | 3 | 18 | 7 | 387BT04MB1AAAAA | \$762.00 | 487B604MB1AAAAA | \$906.00 | 487B204MB1AAAAA | \$906.00 | 487B404MB1AAAAA | \$1338.00 |
| 460-480 | 0 | 5 | 18 | 15 | 387BT04MC1AAAAA | \$762.00 | 487B604MC1AAAAA | \$906.00 | 487B204MC1AAAAA | \$906.00 | 487B404MC1AAAAA | \$1338.00 |
| 460-480 | 1 | 7 1/2 | 27 | 15 | 387CT04MC1AAAAA | \$792.00 | 487C604MC1AAAAA | \$936.00 | 487C204MC1AAAAA | \$936.00 | 487C404MC1AAAAA | \$1368.00 |
| 460-480 | 1 | 10 | 27 | 20 | 387CT04MD1AAAAA | \$792.00 | 487C604MD1AAAAA | \$936.00 | 487C204MD1AAAAA | \$936.00 | 487C404MD1AAAAA | \$1368.00 |
| 460-480 | 2 | 15 | 45 | 30 | 387DT04MF1AAAAA | \$1122.00 | 487D604MF1AAAAA | \$1326.00 | 487D204MF1AAAAA | \$1326.00 | 487D404MF1AAAAA | \$2010.00 |
| 460-480 | 2 | 20 | 45 | 40 | 387DT04MG1AAAAA | \$1122.00 | 487D604MG1AAAAA | \$1326.00 | 487D204MG1AAAAA | \$1326.00 | 487D404MG1AAAAA | \$2010.00 |
| 460-480 | 2 | 25 | 45 | 50 | 387DT04MH1AAAAA | \$1122.00 | 487D604MH1AAAAA | \$1326.00 | 487D204MH1AAAAA | \$1326.00 | 487D404MH1AAAAA | \$2010.00 |
| 460-480 | 3 | 30 | 90 | 50 | 487E104MH1AAAAA | \$1632.00 | 487E604MH1AAAAA | \$1896.00 | 487E204MH1AAAAA | \$1896.00 | 487E404MH1AAAAA | \$3180.00 |
| 460-480 | 3 | 40 | 90 | 70 | 487E104MK1AAAAA | \$1632.00 | 487E604MK1AAAAA | \$1896.00 | 487E204MK1AAAAA | \$1896.00 | 487E404MK1AAAAA | \$3180.00 |
| 460-480 | 3 | 50 | 90 | 90 | 487E104MM1AAAAA | \$1632.00 | 487E604MM1AAAAA | \$1896.00 | 487E204MM1AAAAA | \$1896.00 | 487E404MM1AAAAA | \$3180.00 |
| 460-480 | 4 | 60 | 135 | 100 | 487F104MN1AAAAA | \$3582.00 | 487F604MN1AAAAA | \$4314.00 | 487F204MN1AAAAA | \$4314.00 | 487F404MN1AAAAA | \$5562.00 |
| 460-480 | 4 | 75 | 135 | 125 | 487F104MQ1AAAAA | \$3582.00 | 487F604MQ1AAAAA | \$4314.00 | 487F204MQ1AAAAA | \$4314.00 | 487F404MQ1AAAAA | \$5562.00 |
| 460-480 | 4 | 100 | 135 | 175 | 487F104MS1AAAAA | \$3582.00 | 487F604MS1AAAAA | \$4314.00 | 487F204MS1AAAAA | \$4314.00 | 487F404MS1AAAAA | \$5562.00 |
| 460-480 | 5 | 200 | 270 | 400 | 387G104CAAA | \$8307.00 | 387G604CAAA | \$9627.00 | 387G204CAUA | \$9627.00 | 387G404CAAA | \$13359.00 |
| 575-600 | 0 | 1 | 18 | 3 | 387BT05MA1AAAAA | \$762.00 | 487B605MA1AAAAA | \$906.00 | 487B205MA1AAAAA | \$906.00 | 487B405MA1AAAAA | \$1338.00 |
| 575-600 | 0 | 3 | 18 | 7 | 387BT05MB1AAAAA | \$762.00 | 487B605MB1AAAAA | \$906.00 | 487B205MB1AAAAA | \$906.00 | 487B405MB1AAAAA | \$1338.00 |
| 575-600 | 0 | 5 | 18 | 15 | 387BT05MC1AAAAA | \$762.00 | 487B605MC1AAAAA | \$906.00 | 487B205MC1AAAAA | \$906.00 | 487B405MC1AAAAA | \$1338.00 |
| 575-600 | 1 | 10 | 27 | 15 | 387CT05MC1AAAAA | \$792.00 | 487C605MC1AAAAA | \$936.00 | 487C205MC1AAAAA | \$936.00 | 487C405MC1AAAAA | \$1368.00 |
| 575-600 | 2 | 15 | 45 | 25 | 387DT05ME1AAAAA | \$1122.00 | 487D605ME1AAAAA | \$1326.00 | 487D205ME1AAAAA | \$1326.00 | 487D405ME1AAAAA | \$2010.00 |
| 575-600 | 2 | 20 | 45 | 30 | 387DT05MF1AAAAA | \$1122.00 | 487D605MF1AAAAA | \$1326.00 | 487D205MF1AAAAA | \$1326.00 | 487D405MF1AAAAA | \$2010.00 |
| 575-600 | 2 | 25 | 45 | 40 | 387DT05MG1AAAAA | \$1122.00 | 487D605MG1AAAAA | \$1326.00 | 487D205MG1AAAAA | \$1326.00 | 487D405MG1AAAAA | \$2010.00 |
| 575-600 | 3 | 30 | 90 | 40 | 487E105MG1AAAAA | \$1632.00 | 487E605MG1AAAAA | \$1896.00 | 487E205MG1AAAAA | \$1896.00 | 487E405MG1AAAAA | \$3180.00 |
| 575-600 | 3 | 40 | 90 | 60 | 487E105MJ1AAAAA | \$1632.00 | 487E605MJ1AAAAA | \$1896.00 | 487E205MJ1AAAAA | \$1896.00 | 487E405MJ1AAAAA | \$3180.00 |
| 575-600 | 3 | 50 | 90 | 70 | 487E105MK1AAAAA | \$1632.00 | 487E605MK1AAAAA | \$1896.00 | 487E205MK1AAAAA | \$1896.00 | 487E405MK1AAAAA | \$3180.00 |
| 575-600 | 4 | 60 | 135 | 80 | 487F105ML1AAAAA | \$3582.00 | 487F605ML1AAAAA | \$4314.00 | 487F205ML1AAAAA | \$4314.00 | 487F405ML1AAAAA | \$5562.00 |
| 575-600 | 4 | 75 | 135 | 100 | 487F105MN1AAAAA | \$3582.00 | 487F605MN1AAAAA | \$4314.00 | 487F205MN1AAAAA | \$4314.00 | 487F405MN1AAAAA | \$5562.00 |
| 575-600 | 4 | 100 | 135 | 150 | 487F105MR1AAAAA | \$3582.00 | 487F605MR1AAAAA | \$4314.00 | 487F205MR1AAAAA | \$4314.00 | 487F405MR1AAAAA | \$5562.00 |
| 575-600 | 5 | 125 | 270 | 400 | 387G105BAAA | \$8307.00 | 387G605BAAA | \$9627.00 | 387G205BAUA | \$9627.00 | 387G405BAAA | \$13359.00 |
| 575-600 | 5 | 200 | 270 | 400 | 387G105CAAA | \$8307.00 | 387G605CAAA | \$9627.00 | 387G205CAUA | \$9627.00 | 387G405CAAA | \$13359.00 |

- NEMA Size 5 starters with 115-120Volt, 60 Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
Example: --CR487C208MG1AAAAA with 115-120 Volt, 60 Hertz coil for separate control becomes CR487C202MG1AAAAA.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR387 Mag-Break Magnetic Starters

Section 1

Nonreversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code. Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | |
|-----------|--------------------|------------|
| | Standard Enclosure | List Price |
| | CR | GO-10G1 |
| 0 | 387BT | \$762.00 |
| 1 | 387CT | \$792.00 |
| 2 | 387DT | \$1122.00 |

Note: All enclosures include external overload reset buttons.

Step 2 (Digits 8, 9) Select Control Voltage

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | Standard Size CPT + 100VA | NEMA Size | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------------|--------------------|--------------------|--------------------|
| | | | | | | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | - | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | - | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | - | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | - | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | - | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | - | | | |
| 24V | 09 | \$0.00 | - | - | - | | | | - | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | 13 | \$420.00 | \$420.00 | \$504.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | 14 | \$420.00 | \$420.00 | \$504.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | 15 | \$420.00 | \$420.00 | \$504.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | 18 | \$420.00 | \$420.00 | \$504.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | 53 | \$474.00 | \$474.00 | \$558.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | 54 | \$474.00 | \$474.00 | \$558.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | 55 | \$474.00 | \$474.00 | \$558.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | 58 | \$474.00 | \$474.00 | \$558.00 |
| 240V/24V w/CPT | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | A3 | \$420.00 | \$420.00 | \$504.00 |
| 480V/24V w/CPT | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | A4 | \$420.00 | \$420.00 | \$504.00 |
| 600V/24V w/CPT | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | A5 | \$420.00 | \$420.00 | \$504.00 |
| 208V/24V w/CPT | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | A8 | \$420.00 | \$420.00 | \$504.00 |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

Step 3 (Digits 10, 11) Select Protective Device

Mag-Break Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | MA | \$0.00 | 1/2 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | |
| | 1 | 7 | MB | \$0.00 | 1 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 |
| | 3 | 15 | MC | \$0.00 | 3 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 |
| 1 | 15 | MC | \$0.00 | 15 | MC | \$0.00 | 7 1/2 | 15 | MC | \$0.00 | 10 | 15 | MC | \$0.00 | | |
| | 20 | MD | \$0.00 | 20 | MD | \$0.00 | 10 | 20 | MD | \$0.00 | 20 | 20 | MD | \$0.00 | | |
| | 5 | 25 | ME | \$0.00 | 5 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 |
| | 30 | MF | \$0.00 | 7 1/2 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | |
| 2 | 7 1/2 | 40 | MG | \$0.00 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | |
| | 25 | ME | \$0.00 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 15 | 25 | ME | \$0.00 | | |
| | 30 | MF | \$0.00 | 30 | MF | \$0.00 | 15 | 30 | MF | \$0.00 | 20 | 30 | MF | \$0.00 | | |
| | 40 | MG | \$0.00 | 10 | 40 | MG | \$0.00 | 20 | 40 | MG | \$0.00 | 25 | 40 | MG | \$0.00 | |
| | 10 | 50 | MH | \$0.00 | 50 | MH | \$0.00 | 25 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 | |
| | 60 | MJ | \$0.00 | 15 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR387 Mag-Break Magnetic Starters

Nonreversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|--------------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |

Optional Ranges

| OL Amp Range | NEMA SIZE | |
|--------------|-----------|---|
| | 0 & 1 | 2 |
| 0.4 - 0.85 | C | - |
| 0.8 - 1.7 | D | - |
| 1.6 - 3.4 | E | - |
| 3.2 - 6.8 | F | - |
| 6.5 - 13.5 | G | G |
| 13 - 27 | H | H |
| 25 - 50 | - | J |
| 17 - 35 | - | - |
| 35 - 70 | - | - |
| 65 - 135 | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ¹ | \$264.00 |
| 4NC | M ¹ | \$264.00 |
| 2NO-2NC | N ¹ | \$264.00 |
| 3NO-1NC | P ¹ | \$264.00 |
| 1NO-3NC | R ¹ | \$264.00 |

¹Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-54.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 |
|-------------------|------|-----------------------|
| None ² | A | \$0.00 |

²Phase Failure Relay is not available for CR387 series standard enclosures. If this is required for your application, use CR487 series oversized enclosure. See page 1-55.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|-----------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR387 Mag-Break Magnetic Starters

Nonreversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-2, Type 1 Standard Enclosure

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty) Type | Color - Functionality | Code | List Price GO-10G1 |
|----------------------------------|---|----------------|-----------------------|
| None | None | A | \$0.00 |
| | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ³ | \$228.00 |
| | Green - Thru NC Aux Contact | N ³ | \$228.00 |
| Standard Lights | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ⁴ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ³ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ³ | \$552.00 |
| | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| LED Lights | Red - Thru NO Aux Contact | 3 ³ | \$228.00 |
| | Green - Thru NC Aux Contact | 4 ³ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ⁴ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ³ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ³ | \$552.00 |
| Push-To-Test Lights | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ³ | \$246.00 |
| | Green - Thru NC Aux Contact | D ³ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ⁴ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ³ | \$426.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | V ³ | \$606.00 |

³Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

⁴Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-53, which are for customer/field connections.

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 |
|--------|------|-----------------------|
| None | A | \$0.00 |

GENERAL NOTE:

If selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) control circuit fusing, a control power transformer, or 24V/120V separate sourced control is required, regardless of protective device rating.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR487 Mag-Break Magnetic Starters

Nonreversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | | | NEMA Type 3R | | | | NEMA Type 12 | | | | NEMA Type 4/4X | | | |
|-----------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|
| | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Oversized Enclosure CR | List Price GO-10G1 |
| 0 | Use CR387 | | 487B5 | \$898.00 | 487B6 | \$906.00 | 487BR | \$1042.00 | 487B2 | \$906.00 | 487B7 | \$1042.00 | 487B4 | \$1338.00 | 487BS | \$1584.00 |
| 1 | Use CR387 | | 487C5 | \$928.00 | 487C6 | \$936.00 | 487CR | \$1072.00 | 487C2 | \$936.00 | 487C7 | \$1072.00 | 487C4 | \$1368.00 | 487CS | \$1614.00 |
| 2 | Use CR387 | | 487D5 | \$1258.00 | 487D6 | \$1326.00 | 487DR | \$1462.00 | 487D2 | \$1326.00 | 487D7 | \$1462.00 | 487D4 | \$2010.00 | 487DS | \$2256.00 |
| 3 | 487E1 | \$1632.00 | 487E5 | \$1854.00 | 487E6 | \$1896.00 | 487ER | \$2118.00 | 487E2 | \$1896.00 | 487E7 | \$2118.00 | 487E4 | \$3180.00 | 487ES | \$3738.00 |
| 4 | 487F1 | \$3582.00 | 487F5 | \$3972.00 | 487F6 | \$4314.00 | 487FR | \$4704.00 | 487F2 | \$4314.00 | 487F7 | \$4704.00 | 487F4 | \$5562.00 | 487FS | \$6249.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

¹24V coils not available for NEMA size 3 and 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR487 Mag-Break Magnetic Starters

Section 1

Nonreversing, Combination, Mag-Break Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | |
|-------------------------------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------|----------------------|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price ² GO-10G1 | 1 List Price ² GO-10G1 | 2 List Price ² GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-55, and adjust price accordingly.

Step 3 (Digits 10, 11) Select Protective Device

Mag-Break Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | MA | \$0.00 | 1/2 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | |
| | 1 | 7 | MB | \$0.00 | 1 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 |
| | 3 | 15 | MC | \$0.00 | 3 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 |
| 1 | 15 | MC | \$0.00 | 15 | MC | \$0.00 | 7 1/2 | 15 | MC | \$0.00 | 10 | 15 | MC | \$0.00 | | |
| | 20 | MD | \$0.00 | 20 | MD | \$0.00 | 10 | 20 | MD | \$0.00 | 20 | 20 | MD | \$0.00 | | |
| | 5 | 25 | ME | \$0.00 | 5 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 |
| | 30 | MF | \$0.00 | 7 1/2 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | |
| | 7 1/2 | 40 | MG | \$0.00 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | |
| 2 | 25 | ME | \$0.00 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 15 | 25 | ME | \$0.00 | | |
| | 30 | MF | \$0.00 | 30 | MF | \$0.00 | 15 | 30 | MF | \$0.00 | 20 | 30 | MF | \$0.00 | | |
| | 40 | MG | \$0.00 | 10 | 40 | MG | \$0.00 | 20 | 40 | MG | \$0.00 | 25 | 40 | MG | \$0.00 | |
| | 10 | 50 | MH | \$0.00 | 50 | MH | \$0.00 | 25 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 | |
| | 60 | MJ | \$0.00 | 15 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | |
| | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 30 | 40 | MG | \$0.00 | |
| 3 | 50 | MH | \$0.00 | 50 | MH | \$0.00 | 30 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 | | |
| | 60 | MJ | \$0.00 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 40 | 60 | MJ | \$0.00 | | |
| | 15 | 70 | MK | \$0.00 | 20 | 70 | MK | \$0.00 | 40 | 70 | MK | \$0.00 | 50 | 70 | MK | \$0.00 |
| | 20 | 80 | ML | \$0.00 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | |
| | 90 | MM | \$0.00 | 25 | 90 | MM | \$0.00 | 50 | 90 | MM | \$0.00 | 90 | 90 | MM | \$0.00 | |
| 4 | 25 | 100 | MN | \$0.00 | 30 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 |
| | 80 | ML | \$0.00 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | 60 | 80 | ML | \$0.00 | | |
| | 100 | MN | \$0.00 | 100 | MN | \$0.00 | 60 | 100 | MN | \$0.00 | 75 | 100 | MN | \$0.00 | | |
| | 30 | 125 | MQ | \$0.00 | 125 | MQ | \$0.00 | 75 | 125 | MQ | \$0.00 | 125 | 125 | MQ | \$0.00 | |
| | 40 | 150 | MR | \$0.00 | 40 | 150 | MR | \$0.00 | 150 | 150 | MR | \$0.00 | 100 | 150 | MR | \$0.00 |
| | 175 | MS | \$0.00 | 50 | 175 | MS | \$0.00 | 100 | 175 | MS | \$0.00 | 175 | 175 | MS | \$0.00 | |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table on page 1-57.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR487 Mag-Break Magnetic Starters
Nonreversing, Combination, Mag-Break Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay (continued)

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| 3 | 17 - 35 | | | | | | | 30 | K |
| | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| 4 | 65 - 135 | 25 | M | 30 | M | | | | |
| | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|----------------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$66.00 |
| 1NC | C | \$66.00 |
| 1NO-1NC | D | \$132.00 |
| 2NO | E | \$132.00 |
| 2NC | F | \$132.00 |
| 2NO-1NC | G | \$198.00 |
| 1NO-2NC | H | \$198.00 |
| 3NO | J | \$198.00 |
| 3NC | K | \$198.00 |
| 4NO | L ³ | \$264.00 |
| 4NC | M ³ | \$264.00 |
| 2NO-2NC | N ³ | \$264.00 |
| 3NO-1NC | P ³ | \$264.00 |
| 1NO-3NC | R ³ | \$264.00 |

³Exceeds maximum number of contacts for some pilot light selections. See Step 8 (Digit 16) Table, page 1-58.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|----------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C ² | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D ² | \$920.00 | \$920.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ^{4,6} | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ^{2,5} | \$212.00 | \$342.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ^{2,5,6} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ^{2,5,6} | \$1132.00 | \$1262.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | P ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,4,5,6} | \$637.00 | - | \$773.00 | - | \$773.00 | - |

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-55, and adjust price accordingly.

⁴Available for Type 1 Enclosure only.

⁵Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

⁶Requires Oversized Enclosure for phase failure relay.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR487 Mag-Break Magnetic Starters

Section 1

Nonreversing, Combination, Mag-Break Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|--------------------|
| None | A | \$0.00 |
| Start/Stop Push Button | J | \$132.00 |
| Hand-Off-Auto (HOA) Selector Switch | L | \$132.00 |
| Off-On Selector Switch | M | \$132.00 |
| HOA SS & Start Push Button | S | \$264.00 |
| Keyed HOA SS, Key Removal Center Pos. | N | \$168.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty) | | Code | List Price GO-10G1 |
|--------------------------|---|----------------|--------------------|
| Type | Color - Functionality | | |
| None | None | A | \$0.00 |
| | Red - Across Coil | J | \$162.00 |
| | Green - Across Coil | K | \$162.00 |
| | Red - Thru NO Aux Contact | M ⁷ | \$228.00 |
| | Green - Thru NC Aux Contact | N ⁷ | \$228.00 |
| Standard Lights | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | U ⁸ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | T ⁷ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | X ⁷ | \$552.00 |
| | Red - Across Coil | 1 | \$162.00 |
| | Green - Across Coil | 2 | \$162.00 |
| LED Lights | Red - Thru NO Aux Contact | 3 ⁷ | \$228.00 |
| | Green - Thru NC Aux Contact | 4 ⁷ | \$228.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | 5 ⁸ | \$456.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | 6 ⁷ | \$390.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | 7 ⁷ | \$552.00 |
| Push-To-Test Lights | Red - Across Coil | R | \$180.00 |
| | Green - Across Coil | S | \$180.00 |
| | Red - Thru NO Aux Contact | C ⁷ | \$246.00 |
| | Green - Thru NC Aux Contact | D ⁷ | \$246.00 |
| | Red - Thru NO Aux Contact & Green - Thru NC Aux Contact | E ⁸ | \$492.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact | V ⁷ | \$426.00 |
| | Red - Across Coil & Green - Thru NC Aux Contact & Unwired Amber | Y ⁷ | \$606.00 |

⁷Maximum of 3 Aux contacts may be added to Sizes 0 & 1.

⁸Maximum of 2 Aux contacts may be added to Sizes 0 & 1. Maximum of 3 Aux contacts may be added to Sizes 2-4.

Note: Auxiliary contacts wired as part of pilot light selection are in addition to the auxiliary contacts selected from Step 5 (Digit 13) Table, page 1-57, which are for customer/field connections.

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|---------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ^{2,9} | \$170.00 | \$222.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ^{2,9} | \$340.00 | \$444.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D ² | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E ² | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ^{2,10} | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ^{2,9} | \$279.00 | \$331.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ^{2,9} | \$449.00 | \$553.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ^{2,10} | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{2,9,10} | \$569.00 | \$673.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ^{2,9} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ^{2,9} | \$368.00 | \$414.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ^{2,9} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ^{2,9} | \$477.00 | \$523.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{2,9,10} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{2,9,10} | \$597.00 | \$643.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

²Requires Oversized Enclosure for NEMA sizes 0-2. Select proper NEMA size and enclosure type from Step 1 (Digits 1-7) Table, page 1-55, and adjust price accordingly.

⁹Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

¹⁰Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

If selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) control circuit fusing, a control power transformer, or 24V/120V separate sourced control is required, regardless of protective device rating.



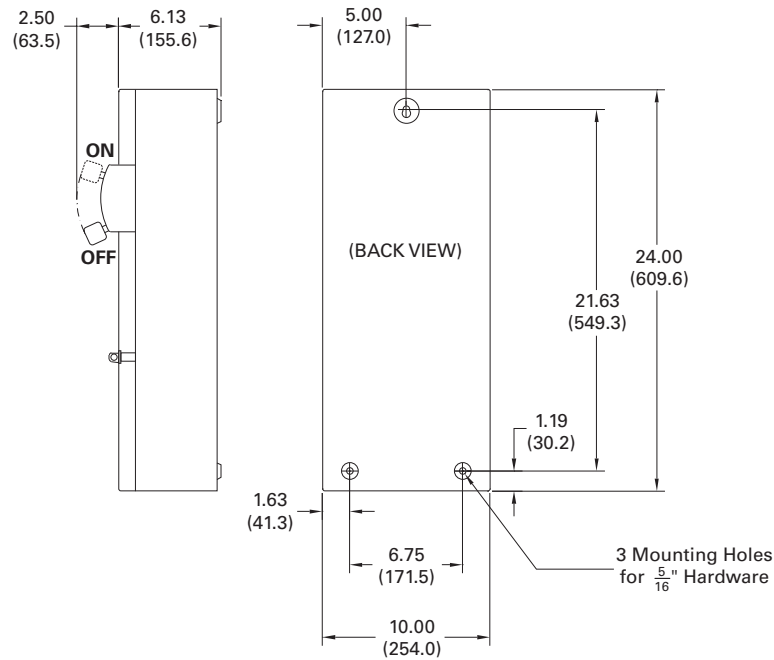
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

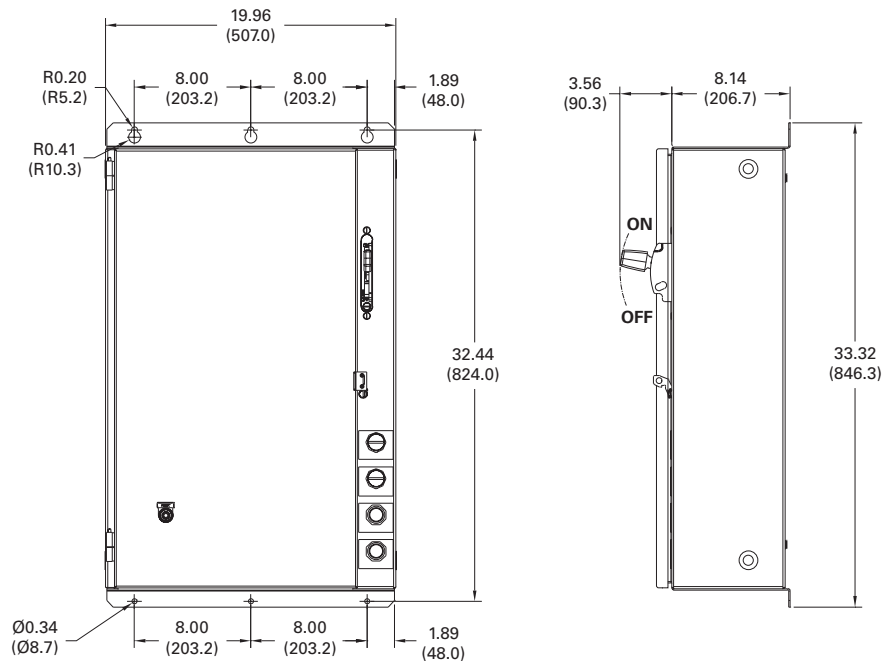
CR307, CR308, CR387 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 400 Horsepower Maximum
 NEMA Sizes 0-2
 600 Volts Maximum 50/60 Hertz
 Outlines, Dimensions in. (mm)



CR307, CR387, CR308 (excludes 100A, 600V fuse clips); Type 1, Standard Size Enclosure



CR308 (includes 100A, 600V fuse clips); Type 1, Standard Size Enclosure



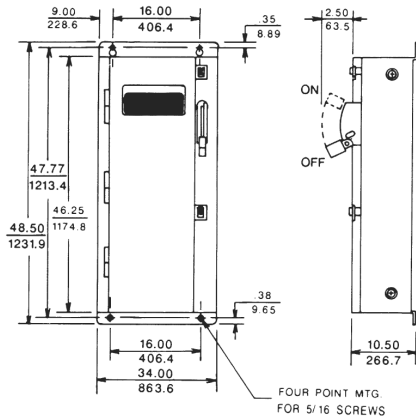
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

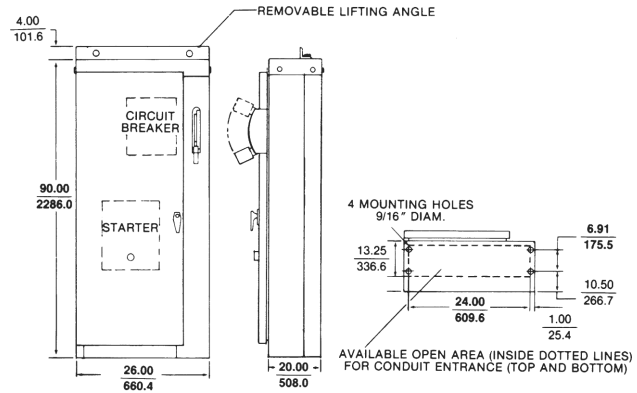
CR307, CR308, CR387 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 400 Horsepower Maximum
 NEMA Sizes 5-6
 600 Volts Maximum 50/60 Hertz
 Outlines, Dimensions in. (mm)



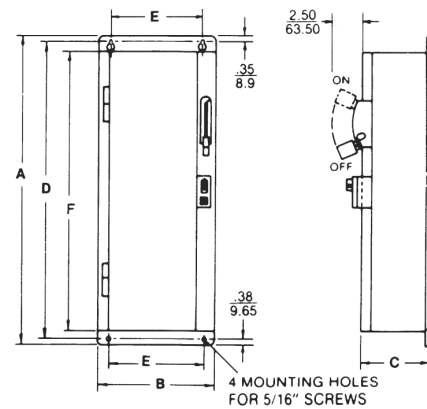
NEMA Type 1, CR307, CR308, CR387: Size 5



NEMA Type 1, CR307, CR308: Size 6 Floor-Mounted

CR307, CR308, CR387 NEMA Type 12 NEMA Size 5

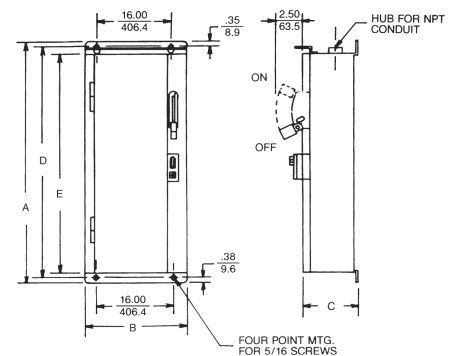
| Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F |
|----------------|---------------|---------------|----------------|---------------|----------------|
| 48.50 (1231.9) | 34.00 (863.6) | 10.50 (266.7) | 47.77 (1213.4) | 16.00 (406.4) | 46.25 (1174.8) |



NEMA Type 12, CR307, CR308, CR387: Size 5

CR307, CR308, CR387 NEMA Type 3R NEMA Size 5

| Dimension A | Dimension B | Dimension C | Dimension D | Dimension E |
|----------------|---------------|---------------|----------------|----------------|
| 48.50 (1231.9) | 34.00 (863.6) | 10.50 (266.7) | 47.77 (1213.4) | 46.25 (1174.8) |



NEMA Type 3R, CR307, CR308, CR387: Size 5

CR307, CR308, CR387 NEMA Type 4/4X NEMA Size 5

| Height | Width | Depth |
|---------------|--------------|------------|
| 48.5 (1231.9) | 33.5 (850.9) | 11 (279.4) |

Note: Contact nearest GE Representative for shipping weight.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR407, CR408, CR487 Magnetic Starters

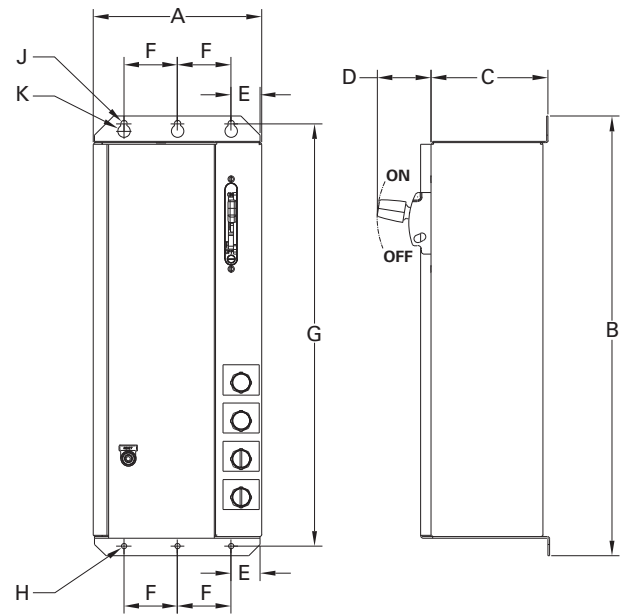
Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X

400 Horsepower Maximum

NEMA Sizes 0-4

600 Volts Maximum 50/60 Hertz

Outlines, Dimensions in. (mm)



CR407, CR408 (Nonfusible Disconnect), CR487 NEMA Type 1 Enclosure

Standard Size (Enclosure Code = 1)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|--|------------------|-----------------|----------------|----------------|-----------------|------------------|---------------|----------------|----------------|
| 0-2 | See CR307, C308, CR387 Dimensional Information | | | | | | | | | |
| 3-4 | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = 5)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367) | 8.14 (206.7) | 3.73 (94.6) | 3.39 (86.1) | 8.00 (203.2) | 52.94 (1344.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

CR407, CR408 (Nonfusible Disconnect), CR487 NEMA Type 3R/12 Enclosure

Standard Size (Enclosure Code = 6 or 2)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|------------------|-----------------|----------------|----------------|-----------------|------------------|---------------|----------------|----------------|
| 0-2 | 11.00 (279.4) | 28.75 (730.3) | 7.70 (195.5) | 3.49 (88.6) | 1.91 (48.5) | 3.50 (88.9) | 27.63 (701.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = R or 7)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367.0) | 8.20 (208.2) | 3.50 (88.8) | 3.41 (86.6) | 8.00 (203.2) | 52.70 (1338.5) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

CR407, CR408 (Nonfusible Disconnect), CR487 NEMA Type 4/4X Enclosure

Standard Size (Enclosure Code = 4)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|------------------|-----------------|----------------|----------------|-----------------|------------------|---------------|----------------|----------------|
| 0-2 | 11.00 (279.4) | 29.38 (746.3) | 7.64 (194.0) | 3.53 (89.7) | 1.91 (48.5) | 3.50 (88.9) | 28.26 (717.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = S)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.76 (1365.5) | 8.14 (206.7) | 3.55 (90.2) | 3.41 (86.6) | 8.00 (203.2) | 52.64 (1336.9) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR408 Magnetic Starters

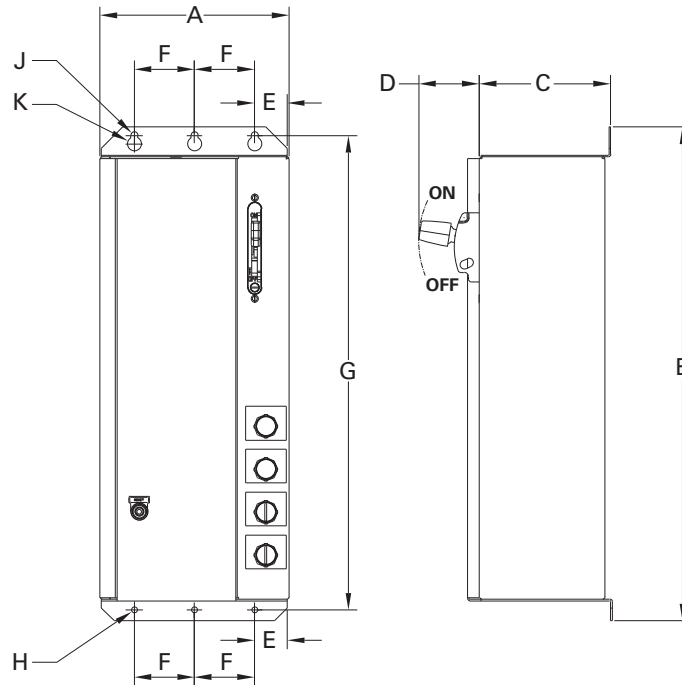
Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X

400 Horsepower Maximum

NEMA Sizes 0-4

600 Volts Maximum 50/60 Hertz

Outlines, Dimensions in. (mm)



CR408 (Fusible Disconnect) NEMA Type 1 Enclosure

Standard Size (Enclosure Code = 1)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|--------------------------------|-----------------------------------|---------------|--------------|-------------|-------------|--------------|----------------|------------|-------------|-------------|
| 0-2 | See CR308 Dimensional Information | | | | | | | | | |
| 3 (excludes 200A fuse clips) | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (includes 200A fuse clips)-4 | 23.00 (584.2) | 53.82 (1367) | 8.14 (206.7) | 3.73 (94.6) | 3.39 (86.1) | 8.00 (203.2) | 52.94 (1344.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = 5)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|------------------------------|---------------|---------------|--------------|-------------|-------------|--------------|----------------|------------|-------------|-------------|
| 0-2 | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (excludes 200A fuse clips) | 23.00 (584.2) | 53.82 (1367) | 8.14 (206.7) | 3.73 (94.6) | 3.39 (86.1) | 8.00 (203.2) | 52.94 (1344.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

CR408 (Fusible Disconnect) NEMA Type 3R/12 Enclosure

Standard Size (Enclosure Code = 6 or 2)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|--------------------------------|---------------|----------------|--------------|-------------|-------------|--------------|----------------|------------|-------------|-------------|
| 0-2 | 11.00 (279.4) | 28.75 (730.3) | 7.70 (195.5) | 3.49 (88.6) | 1.91 (48.5) | 3.50 (88.9) | 27.63 (701.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (excludes 200A fuse clips) | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (includes 200A fuse clips)-4 | 23.00 (584.2) | 53.82 (1367.0) | 8.20 (208.2) | 3.50 (88.8) | 3.41 (86.6) | 8.00 (203.2) | 52.70 (1338.5) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = R or 7)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|------------------------------|---------------|----------------|--------------|-------------|-------------|--------------|----------------|------------|-------------|-------------|
| 0-2 | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (excludes 200A fuse clips) | 23.00 (584.2) | 53.82 (1367.0) | 8.20 (208.2) | 3.50 (88.8) | 3.41 (86.6) | 8.00 (203.2) | 52.70 (1338.5) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



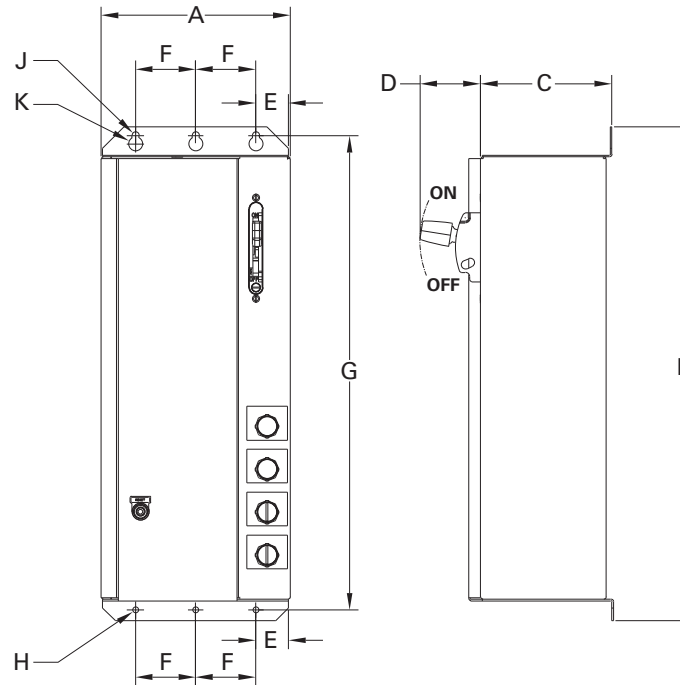
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR408 Magnetic Starters

Section 1

Nonreversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 400 Horsepower Maximum
 NEMA Sizes 0-4
 600 Volts Maximum 50/60 Hertz
 Outlines, Dimensions in. (mm)



CR408 (Fusible Disconnect) NEMA Type 4/4X Enclosure

Standard Size (Enclosure Code = 4)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------------------------------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 11.00 (279.4) | 29.38 (746.3) | 7.64 (194.0) | 3.53 (89.7) | 1.91 (48.5) | 3.50 (88.9) | 28.26 (717.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (excludes 200A fuse clips) | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (includes 200A fuse clips)-4 | 23.00 (584.2) | 53.76 (1365.5) | 8.14 (206.7) | 3.55 (90.2) | 3.41 (86.6) | 8.00 (203.2) | 52.64 (1336.9) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

Oversized (Enclosure Code = S)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|---------------------------------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3 (excludes 200A fuse clips) | 23.00 (584.2) | 53.76 (1365.5) | 8.14 (206.7) | 3.55 (90.2) | 3.41 (86.6) | 8.00 (203.2) | 52.64 (1336.9) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR310, CR410, CR311, CR411 Magnetic Starters

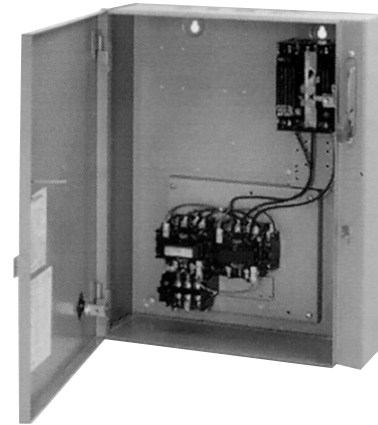
Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 200 Horsepower Maximum
 NEMA Sizes 0-5
 600 Volts Maximum 50/60 Hertz

Section 1

Application

Used for full-voltage starting and reversing of squirrel cage induction motors up to 200 horsepower maximum, 600 Volts maximum. Provides short-circuit protection, either by means of fuses or a circuit breaker. Consists of a reversing controller and a fusible or nonfusible disconnect switch or circuit breaker to provide branch circuit protection.

Three-leg block overload relay provides overload protection on starters. Undervoltage protection or release can be provided by using appropriate accessory controls. Refer to page 1-7 for features of basic starter.



CR310 NEMA Size 2 Combination Reverser in NEMA Type 1 Enclosure with Circuit Breaker

Product Number Selection Instructions

- Specify starter by complete Product Number.
 Example: CR411E6041A1AAAAA @ **\$2994.00, GO-10G1**.
- Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159, based on motor full-load current. Fuses can be purchased from local fuse suppliers.
- Order forms not listed or special features by complete description using a listed Product Number as reference wherever possible.
 Example: Similar to CR411E6041A1AAAAA except with a 575/115-Volt control transformer @ **\$3462.00, GO-10G1**, total list price.
- 50 Hertz Starters**
 Pricing for 50 Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. Listed prices for 460-480 Volt also apply to 380-415 Volt, 50 Hertz. See page 1-4 for 380-415 Volt horsepower ratings.
- Product Notes**
 Motor full-load current should not exceed continuous ampere rating of starter.

Reference Publications

| Instructions | Publication Number |
|--------------|--------------------|
| NEMA Size | |
| 0, 1 | GEH-5190 |
| 2 | GEH-4775 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |

CR310, CR410, CR311, CR411 Magnetic Starters - Contents

| | |
|--|------|
| Application Information and Selection Instructions | 1-64 |
| Nonfusible Disconnect Type (CR311, CR411)..... | 1-65 |
| Fusible Disconnect Type (CR311, CR411) | 1-66 |
| Nonfusible and Fusible Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR411)..... | 1-68 |
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| Thermal Magnetic Part Number Configuration | |
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NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR311, CR411 Magnetic Starters

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-5, Nonfusible Disconnect Type

600 Volts Maximum 60 Hertz

Three-Phase

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00 each, GO-10H.**

CR311/411 Reversing Nonfusible Disconnect Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 411B1081A1AAAA | \$894.00 | 411B6081A1AAAA | \$1098.00 | 411B2081A1AAAA | \$1098.00 | 411B4081A1AAAA | \$1626.00 |
| 200-208 | 1 | 7 1/2 | 27 | 411C1081A1AAAA | \$954.00 | 411C6081A1AAAA | \$1158.00 | 411C2081A1AAAA | \$1158.00 | 411C4081A1AAAA | \$1686.00 |
| 200-208 | 2 | 10 | 45 | 411D1081A1AAAA | \$1596.00 | 411D6081A1AAAA | \$1860.00 | 411D2081A1AAAA | \$1860.00 | 411D4081A1AAAA | \$2712.00 |
| 200-208 | 3 | 25 | 90 | 411E1081A1AAAA | \$2646.00 | 411E6081A1AAAA | \$2994.00 | 411E2081A1AAAA | \$2994.00 | 411E4081A1AAAA | \$4602.00 |
| 200-208 | 4 | 40 | 135 | 411F1081A1AAAA | \$5544.00 | 411F6081A1AAAA | \$6498.00 | 411F2081A1AAAA | \$6498.00 | 411F4081A1AAAA | \$8016.00 |
| 200-208 | 5 | 75 | 270 | 311G123AAA | \$10321.00 | 311G623AAA | \$13089.00 | 311G223AAA | \$13089.00 | - | - |
| 230-240 | 0 | 3 | 18 | 411B1031A1AAAA | \$894.00 | 411B6031A1AAAA | \$1098.00 | 411B2031A1AAAA | \$1098.00 | 411B4031A1AAAA | \$1626.00 |
| 230-240 | 1 | 7 1/2 | 27 | 411C1031A1AAAA | \$954.00 | 411C6031A1AAAA | \$1158.00 | 411C2031A1AAAA | \$1158.00 | 411C4031A1AAAA | \$1686.00 |
| 230-240 | 2 | 15 | 45 | 411D1031A1AAAA | \$1596.00 | 411D6031A1AAAA | \$1860.00 | 411D2031A1AAAA | \$1860.00 | 411D4031A1AAAA | \$2712.00 |
| 230-240 | 3 | 30 | 90 | 411E1031A1AAAA | \$2646.00 | 411E6031A1AAAA | \$2994.00 | 411E2031A1AAAA | \$2994.00 | 411E4031A1AAAA | \$4602.00 |
| 230-240 | 4 | 50 | 135 | 411F1031A1AAAA | \$5544.00 | 411F6031A1AAAA | \$6498.00 | 411F2031A1AAAA | \$6498.00 | 411F4031A1AAAA | \$8016.00 |
| 230-240 | 5 | 100 | 270 | 311G103AAA | \$10321.00 | 311G603AAA | \$13089.00 | 311G203AAA | \$13089.00 | - | - |
| 460-480 | 0 | 5 | 18 | 411B1041A1AAAA | \$894.00 | 411B6041A1AAAA | \$1098.00 | 411B2041A1AAAA | \$1098.00 | 411B4041A1AAAA | \$1626.00 |
| 460-480 | 1 | 10 | 27 | 411C1041A1AAAA | \$954.00 | 411C6041A1AAAA | \$1158.00 | 411C2041A1AAAA | \$1158.00 | 411C4041A1AAAA | \$1686.00 |
| 460-480 | 2 | 25 | 45 | 411D1041A1AAAA | \$1596.00 | 411D6041A1AAAA | \$1860.00 | 411D2041A1AAAA | \$1860.00 | 411D4041A1AAAA | \$2712.00 |
| 460-480 | 3 | 50 | 90 | 411E1041A1AAAA | \$2646.00 | 411E6041A1AAAA | \$2994.00 | 411E2041A1AAAA | \$2994.00 | 411E4041A1AAAA | \$4602.00 |
| 460-480 | 4 | 100 | 135 | 411F1041A1AAAA | \$5544.00 | 411F6041A1AAAA | \$6498.00 | 411F2041A1AAAA | \$6498.00 | 411F4041A1AAAA | \$8016.00 |
| 460-480 | 5 | 200 | 270 | 311G104AAA | \$10321.00 | 311G604AAA | \$13089.00 | 311G204AAA | \$13089.00 | - | - |
| 575-600 | 0 | 5 | 18 | 411B1051A1AAAA | \$894.00 | 411B6051A1AAAA | \$1098.00 | 411B2051A1AAAA | \$1098.00 | 411B4051A1AAAA | \$1626.00 |
| 575-600 | 1 | 10 | 27 | 411C1051A1AAAA | \$954.00 | 411C6051A1AAAA | \$1158.00 | 411C2051A1AAAA | \$1158.00 | 411C4051A1AAAA | \$1686.00 |
| 575-600 | 2 | 25 | 45 | 411D1051A1AAAA | \$1596.00 | 411D6051A1AAAA | \$1860.00 | 411D2051A1AAAA | \$1860.00 | 411D4051A1AAAA | \$2712.00 |
| 575-600 | 3 | 50 | 90 | 411E1051A1AAAA | \$2646.00 | 411E6051A1AAAA | \$2994.00 | 411E2051A1AAAA | \$2994.00 | 411E4051A1AAAA | \$4602.00 |
| 575-600 | 4 | 100 | 135 | 411F1051A1AAAA | \$5544.00 | 411F6051A1AAAA | \$6498.00 | 411F2051A1AAAA | \$6498.00 | 411F4051A1AAAA | \$8016.00 |
| 575-600 | 5 | 200 | 270 | 311G105AAA | \$10321.00 | 311G605AAA | \$13089.00 | 311G205AAA | \$13089.00 | - | - |

- NEMA Size 5 starters with 115-120Volt, 60 Hertz coil for separate control are available at listed prices. To order, replace Digits 8 and 9 of listed Product Numbers with 02.
Example: CR411D1041A1AAAA with 115-120 Volt, 60 Hertz coil for separate control becomes CR411D1021A1AAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR311, CR411 Magnetic Starters

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-5, Fusible Disconnect Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00 each, GO-10H.**

CR311/411 Reversing Fusible Disconnect – Class H Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 411B108HA1AAAAA | \$912.00 | 411B608HA1AAAAA | \$1116.00 | 411B208HA1AAAAA | \$1116.00 | 411B408HA1AAAAA | \$1644.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 411C108HB1AAAAA | \$984.00 | 411C608HB1AAAAA | \$1188.00 | 411C208HB1AAAAA | \$1188.00 | 411C408HB1AAAAA | \$1716.00 |
| 200-208 | 2 | 10 | 45 | 100 | 411D108HC1AAAAA | \$1692.00 | 411D608HC1AAAAA | \$1956.00 | 411D208HC1AAAAA | \$1956.00 | 411D408HC1AAAAA | \$2808.00 |
| 200-208 | 3 | 25 | 90 | 200 | 411E108HD1AAAAA | \$2838.00 | 411E608HD1AAAAA | \$3186.00 | 411E208HD1AAAAA | \$3186.00 | 411E408HD1AAAAA | \$4794.00 |
| 200-208 | 4 | 40 | 135 | 400 | 411F108HE1AAAAA | \$5760.00 | 411F608HE1AAAAA | \$6714.00 | 411F208HE1AAAAA | \$6714.00 | 411F408HE1AAAAA | \$8232.00 |
| 200-208 | 5 | 75 | 270 | 400 | 311G123BAA | \$10785.00 | 311G623BAA | \$13053.00 | 311G223BAA | \$13053.00 | - | - |
| 230-240 | 0 | 3 | 18 | 30 | 411B103HA1AAAAA | \$912.00 | 411B603HA1AAAAA | \$1116.00 | 411B203HA1AAAAA | \$1116.00 | 411B403HA1AAAAA | \$1644.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 411C103HB1AAAAA | \$984.00 | 411C603HB1AAAAA | \$1188.00 | 411C203HB1AAAAA | \$1188.00 | 411C403HB1AAAAA | \$1716.00 |
| 230-240 | 2 | 15 | 45 | 100 | 411D103HC1AAAAA | \$1692.00 | 411D603HC1AAAAA | \$1956.00 | 411D203HC1AAAAA | \$1956.00 | 411D403HC1AAAAA | \$2808.00 |
| 230-240 | 3 | 30 | 90 | 200 | 411E103HD1AAAAA | \$2838.00 | 411E603HD1AAAAA | \$3186.00 | 411E203HD1AAAAA | \$3186.00 | 411E403HD1AAAAA | \$4794.00 |
| 230-240 | 4 | 50 | 135 | 400 | 411F103HE1AAAAA | \$5760.00 | 411F603HE1AAAAA | \$6714.00 | 411F203HE1AAAAA | \$6714.00 | 411F403HE1AAAAA | \$8232.00 |
| 230-240 | 5 | 100 | 270 | 400 | 311G103BAA | \$10785.00 | 311G603BAA | \$13053.00 | 311G203BAA | \$13053.00 | - | - |
| 460-480 | 0 | 5 | 18 | 30 | 411B104H31AAAAA | \$924.00 | 411B604H31AAAAA | \$1128.00 | 411B204H31AAAAA | \$1128.00 | 411B404H31AAAAA | \$1656.00 |
| 460-480 | 1 | 7 1/2 | 27 | 30 | 411C104H31AAAAA | \$984.00 | 411C604H31AAAAA | \$1188.00 | 411C204H31AAAAA | \$1188.00 | 411C404H31AAAAA | \$1716.00 |
| 460-480 | 1 | 10 | 27 | 60 | 411C104H61AAAAA | \$996.00 | 411C604H61AAAAA | \$1200.00 | 411C204H61AAAAA | \$1200.00 | 411C404H61AAAAA | \$1728.00 |
| 460-480 | 2 | 15 | 45 | 60 | 411D104H61AAAAA | \$1638.00 | 411D604H61AAAAA | \$1902.00 | 411D204H61AAAAA | \$1902.00 | 411D404H61AAAAA | \$2754.00 |
| 460-480 | 2 | 25 | 45 | 100 | 411D104H11AAAAA | \$1704.00 | 411D604H11AAAAA | \$1968.00 | 411D204H11AAAAA | \$1968.00 | 411D404H11AAAAA | \$2820.00 |
| 460-480 | 3 | 30 | 90 | 100 | 411E104H11AAAAA | \$2736.00 | 411E604H11AAAAA | \$3084.00 | 411E204H11AAAAA | \$3084.00 | 411E404H11AAAAA | \$4692.00 |
| 460-480 | 3 | 50 | 90 | 200 | 411E104H21AAAAA | \$2862.00 | 411E604H21AAAAA | \$3210.00 | 411E204H21AAAAA | \$3210.00 | 411E404H21AAAAA | \$4818.00 |
| 460-480 | 4 | 60 | 135 | 200 | 411F104H21AAAAA | \$5670.00 | 411F604H21AAAAA | \$6624.00 | 411F204H21AAAAA | \$6624.00 | 411F404H21AAAAA | \$8142.00 |
| 460-480 | 4 | 100 | 135 | 400 | 411F104H41AAAAA | \$5760.00 | 411F604H41AAAAA | \$6714.00 | 411F204H41AAAAA | \$6714.00 | 411F404H41AAAAA | \$8232.00 |
| 575-600 | 0 | 5 | 18 | 30 | 411B105H31AAAAA | \$924.00 | 411B605H31AAAAA | \$1128.00 | 411B205H31AAAAA | \$1128.00 | 411B405H31AAAAA | \$1656.00 |
| 575-600 | 1 | 10 | 27 | 30 | 411C105H31AAAAA | \$984.00 | 411C605H31AAAAA | \$1188.00 | 411C205H31AAAAA | \$1188.00 | 411C405H31AAAAA | \$1716.00 |
| 575-600 | 2 | 20 | 45 | 60 | 411D105H61AAAAA | \$1638.00 | 411D605H61AAAAA | \$1902.00 | 411D205H61AAAAA | \$1902.00 | 411D405H61AAAAA | \$2754.00 |
| 575-600 | 2 | 25 | 45 | 100 | 411D105H11AAAAA | \$1704.00 | 411D605H11AAAAA | \$1968.00 | 411D205H11AAAAA | \$1968.00 | 411D405H11AAAAA | \$2820.00 |
| 575-600 | 3 | 30 | 90 | 100 | 411E105H11AAAAA | \$2736.00 | 411E605H11AAAAA | \$3084.00 | 411E205H11AAAAA | \$3084.00 | 411E405H11AAAAA | \$4692.00 |
| 575-600 | 3 | 50 | 90 | 200 | 411E105H21AAAAA | \$2862.00 | 411E605H21AAAAA | \$3210.00 | 411E205H21AAAAA | \$3210.00 | 411E405H21AAAAA | \$4818.00 |
| 575-600 | 4 | 60 | 135 | 200 | 411F105H21AAAAA | \$5670.00 | 411F605H21AAAAA | \$6624.00 | 411F205H21AAAAA | \$6624.00 | 411F405H21AAAAA | \$8142.00 |
| 575-600 | 4 | 100 | 135 | 400 | 411F105H41AAAAA | \$5760.00 | 411F605H41AAAAA | \$6714.00 | 411F205H41AAAAA | \$6714.00 | 411F405H41AAAAA | \$8232.00 |

- NEMA Size 0-5 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02. Example: CR411C108HC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR411C102HC1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.
- Fuses not included.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR311, CR411 Magnetic Starters

Section 1

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-5, Fusible Disconnect Type
 600 Volts Maximum 60 Hertz

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00 each, GO-10H.**

CR311/411 Reversing Fusible Disconnect – Class R Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 411B108RA1AAAA | \$921.00 | 411B608RA1AAAA | \$1125.00 | 411B208RA1AAAA | \$1125.00 | 411B408RA1AAAA | \$1653.00 |
| 200-208 | 1 | 5 | 27 | 30 | 411C108RA1AAAA | \$981.00 | 411C608RA1AAAA | \$1185.00 | 411C208RA1AAAA | \$1185.00 | 411C408RA1AAAA | \$1713.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 411C108RB1AAAA | \$993.00 | 411C608RB1AAAA | \$1197.00 | 411C208RB1AAAA | \$1197.00 | 411C408RB1AAAA | \$1725.00 |
| 200-208 | 2 | 10 | 45 | 60 | 411D108RB1AAAA | \$1629.00 | 411D608RB1AAAA | \$1893.00 | 411D208RB1AAAA | \$1893.00 | 411D408RB1AAAA | \$2745.00 |
| 200-208 | 3 | 20 | 90 | 100 | 411E108RC1AAAA | \$2724.00 | 411E608RC1AAAA | \$3072.00 | 411E208RC1AAAA | \$3072.00 | 411E408RC1AAAA | \$4680.00 |
| 200-208 | 3 | 25 | 90 | 200 | 411E108RD1AAAA | \$2856.00 | 411E608RD1AAAA | \$3204.00 | 411E208RD1AAAA | \$3204.00 | 411E408RD1AAAA | \$4812.00 |
| 200-208 | 4 | 40 | 135 | 200 | 411F108RD1AAAA | \$5664.00 | 411F608RD1AAAA | \$6618.00 | 411F208RD1AAAA | \$6618.00 | 411F408RD1AAAA | \$8136.00 |
| 230-240 | 0 | 3 | 18 | 30 | 411B103RA1AAAA | \$921.00 | 411B603RA1AAAA | \$1125.00 | 411B203RA1AAAA | \$1125.00 | 411B403RA1AAAA | \$1653.00 |
| 230-240 | 1 | 5 | 27 | 30 | 411C103RA1AAAA | \$981.00 | 411C603RA1AAAA | \$1185.00 | 411C203RA1AAAA | \$1185.00 | 411C403RA1AAAA | \$1713.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 411C103RB1AAAA | \$993.00 | 411C603RB1AAAA | \$1197.00 | 411C203RB1AAAA | \$1197.00 | 411C403RB1AAAA | \$1725.00 |
| 230-240 | 2 | 15 | 45 | 60 | 411D103RB1AAAA | \$1629.00 | 411D603RB1AAAA | \$1893.00 | 411D203RB1AAAA | \$1893.00 | 411D403RB1AAAA | \$2745.00 |
| 230-240 | 3 | 25 | 90 | 100 | 411E103RC1AAAA | \$2724.00 | 411E603RC1AAAA | \$3072.00 | 411E203RC1AAAA | \$3072.00 | 411E403RC1AAAA | \$4680.00 |
| 230-240 | 3 | 30 | 90 | 200 | 411E103RD1AAAA | \$2856.00 | 411E603RD1AAAA | \$3204.00 | 411E203RD1AAAA | \$3204.00 | 411E403RD1AAAA | \$4812.00 |
| 230-240 | 4 | 50 | 135 | 200 | 411F103RD1AAAA | \$5664.00 | 411F603RD1AAAA | \$6618.00 | 411F203RD1AAAA | \$6618.00 | 411F403RD1AAAA | \$8136.00 |
| 460-480 | 0 | 5 | 18 | 30 | 411B104R31AAAA | \$933.00 | 411B604R31AAAA | \$1137.00 | 411B204R31AAAA | \$1137.00 | 411B404R31AAAA | \$1665.00 |
| 460-480 | 1 | 10 | 27 | 30 | 411C104R31AAAA | \$993.00 | 411C604R31AAAA | \$1197.00 | 411C204R31AAAA | \$1197.00 | 411C404R31AAAA | \$1725.00 |
| 460-480 | 2 | 25 | 45 | 60 | 411D104R61AAAA | \$1647.00 | 411D604R61AAAA | \$1911.00 | 411D204R61AAAA | \$1911.00 | 411D404R61AAAA | \$2763.00 |
| 460-480 | 3 | 50 | 90 | 100 | 411E104R11AAAA | \$2754.00 | 411E604R11AAAA | \$3102.00 | 411E204R11AAAA | \$3102.00 | 411E404R11AAAA | \$4710.00 |
| 460-480 | 4 | 100 | 135 | 200 | 411F104R21AAAA | \$5688.00 | 411F604R21AAAA | \$6642.00 | 411F204R21AAAA | \$6642.00 | 411F404R21AAAA | \$8160.00 |
| 460-480 | 5 | 200 | 270 | 400 | 311G104FAA | \$11037.00 | 311G604FAA | \$13305.00 | 311G204FAA | \$13305.00 | - | - |
| 575-600 | 0 | 5 | 18 | 30 | 411B105R31AAAA | \$933.00 | 411B605R31AAAA | \$1137.00 | 411B205R31AAAA | \$1137.00 | 411B405R31AAAA | \$1665.00 |
| 575-600 | 1 | 10 | 27 | 30 | 411C105R31AAAA | \$993.00 | 411C605R31AAAA | \$1197.00 | 411C205R31AAAA | \$1197.00 | 411C405R31AAAA | \$1725.00 |
| 575-600 | 2 | 15 | 45 | 30 | 411D105R31AAAA | \$1635.00 | 411D605R31AAAA | \$1899.00 | 411D205R31AAAA | \$1899.00 | 411D405R31AAAA | \$2751.00 |
| 575-600 | 2 | 25 | 45 | 60 | 411D105R61AAAA | \$1647.00 | 411D605R61AAAA | \$1911.00 | 411D205R61AAAA | \$1911.00 | 411D405R61AAAA | \$2763.00 |
| 575-600 | 3 | 30 | 90 | 60 | 411E105R61AAAA | \$2688.00 | 411E605R61AAAA | \$3036.00 | 411E205R61AAAA | \$3036.00 | 411E405R61AAAA | \$4644.00 |
| 575-600 | 3 | 50 | 90 | 100 | 411E105R11AAAA | \$2754.00 | 411E605R11AAAA | \$3102.00 | 411E205R11AAAA | \$3102.00 | 411E405R11AAAA | \$4710.00 |
| 575-600 | 4 | 60 | 135 | 100 | 411F105R11AAAA | \$5652.00 | 411F605R11AAAA | \$6606.00 | 411F205R11AAAA | \$6606.00 | 411F405R11AAAA | \$8124.00 |
| 575-600 | 4 | 100 | 135 | 200 | 411F105R21AAAA | \$5688.00 | 411F605R21AAAA | \$6642.00 | 411F205R21AAAA | \$6642.00 | 411F405R21AAAA | \$8160.00 |
| 575-600 | 5 | 200 | 270 | 400 | 311G105FAA | \$11037.00 | 311G605FAA | \$13305.00 | 311G205FAA | \$13305.00 | - | - |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR411 Magnetic Starters

Reversing, Combination, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 411B1 | \$894.00 | 411B6 | \$1098.00 | 411B2 | \$1098.00 | 411B4 | \$1626.00 |
| 1 | 411C1 | \$954.00 | 411C6 | \$1158.00 | 411C2 | \$1158.00 | 411C4 | \$1686.00 |
| 2 | 411D1 | \$1596.00 | 411D6 | \$1860.00 | 411D2 | \$1860.00 | 411D4 | \$2712.00 |
| 3 | 411E1 | \$2646.00 | 411E6 | \$2994.00 | 411E2 | \$2994.00 | 411E4 | \$4602.00 |
| 4 | 411F1 | \$5544.00 | 411F6 | \$6498.00 | 411F2 | \$6498.00 | 411F4 | \$8016.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | 53 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | 54 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | 55 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | 58 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR411 Magnetic Starters

Section 1

Reversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | | |
| 120V | - | | | | | | - | | | | | | |
| 240V | - | | | | | | - | | | | | | |
| 480V | - | | | | | | - | | | | | | |
| 600V | - | | | | | | - | | | | | | |
| 208V | - | | | | | | - | | | | | | |
| 24V ¹ | - | | | | | | - | | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - | |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Disconnect without Fuse Clips

| NEMA Size | Code | List Price GO-10G1 |
|-----------|------|-----------------------|
| All | 1A | \$0.00 |

Disconnect with Class H Fuse Clips - For use with Non-Time Delay/Single Element Class H Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|---------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | HA | \$18.00 | 3 | 30 | HA | \$18.00 | 5 | 30 | H3 | \$30.00 | 5 | 30 | H3 | \$30.00 |
| 1 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 60 | HB | \$30.00 | 7 1/2 | 30 | H3 | \$30.00 | 10 | 30 | H3 | \$30.00 |
| | | | | | | | | | 10 | 60 | H6 | \$42.00 | 60 | H6 | \$42.00 | |
| 2 | 10 | 100 | HC | \$96.00 | 15 | 100 | HC | \$96.00 | 15 | 60 | H6 | \$42.00 | 20 | 60 | H6 | \$42.00 |
| | | | | | | | | | 25 | 100 | H1 | \$108.00 | 25 | 100 | H1 | \$108.00 |
| 3 | 25 | 200 | HD | \$192.00 | 30 | 200 | HD | \$192.00 | 30 | 100 | H1 | \$90.00 | 30 | 100 | H1 | \$90.00 |
| | | | | | | | | | 50 | 200 | H2 | \$216.00 | 50 | 200 | H2 | \$216.00 |
| 4 | 40 | 400 | HE | \$216.00 | 50 | 400 | HE | \$216.00 | 60 | 200 | H2 | \$126.00 | 60 | 200 | H2 | \$126.00 |
| | | | | | | | | | 100 | 400 | H4 | \$216.00 | 100 | 400 | H4 | \$216.00 |

Disconnect with Class R Fuse Clips - For use with Time Delay/Dual Element Class RK1/RK5 Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | RA | \$27.00 | 3 | 30 | RA | \$27.00 | 5 | 30 | R3 | \$39.00 | 5 | 30 | R3 | \$39.00 |
| 1 | 5 | 30 | RA | \$27.00 | 5 | 30 | RA | \$27.00 | 10 | 30 | R3 | \$39.00 | 10 | 30 | R3 | \$39.00 |
| | | | | | | | | | 7 1/2 | 60 | RB | \$39.00 | 7 1/2 | 60 | RB | \$39.00 |
| 2 | 10 | 60 | RB | \$33.00 | 15 | 60 | RB | \$33.00 | 30 | R3 | \$39.00 | 15 | 30 | R3 | \$39.00 | |
| | | | | | | | | | 25 | 60 | R6 | \$51.00 | 25 | 60 | R6 | \$51.00 |
| 3 | 20 | 100 | RC | \$78.00 | 25 | 100 | RC | \$78.00 | 60 | R6 | \$42.00 | 30 | 60 | R6 | \$42.00 | |
| | | | | | | | | | 50 | 100 | R1 | \$108.00 | 50 | 100 | R1 | \$108.00 |
| 4 | 25 | 200 | RD | \$210.00 | 30 | 200 | RD | \$210.00 | 100 | R1 | \$108.00 | 60 | 100 | R1 | \$108.00 | |
| | | | | | | | | | 100 | 200 | R2 | \$144.00 | 100 | 200 | R2 | \$144.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR411 Magnetic Starters

Section 1

Reversing, Combination, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 3 (Digits 10, 11) Select Protective Device (continued)

Disconnect with Class J Fuse Clips - For use with Time Delay/Dual Element Class J Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|----------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | J3 | \$48.00 | 3 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 |
| 1 | 5 | 30 | J3 | \$48.00 | 5 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 | 10 | 30 | J3 | \$48.00 |
| | 7 1/2 | 60 | J6 | \$48.00 | 7 1/2 | 60 | J6 | \$48.00 | | | | | | | | |
| 2 | | | | | | | | | 30 | J3 | \$60.00 | | 15 | 30 | J3 | \$60.00 |
| | 10 | 60 | J6 | \$72.00 | 15 | 60 | J6 | \$72.00 | 25 | 60 | J6 | \$72.00 | 25 | 60 | J6 | \$72.00 |
| | | | | | | | | | 60 | J6 | \$96.00 | | 30 | 60 | J6 | \$96.00 |
| 3 | 20 | 100 | J1 | \$162.00 | 25 | 100 | J1 | \$162.00 | 50 | 100 | J1 | \$162.00 | 50 | 100 | J1 | \$162.00 |
| | 25 | 200 | J2 | \$246.00 | 30 | 200 | J2 | \$246.00 | | | | | | | | |
| 4 | | | | | | | | | 100 | J1 | \$210.00 | | 60 | 100 | J1 | \$210.00 |
| | 40 | 200 | J2 | \$246.00 | 50 | 200 | J2 | \$246.00 | 100 | 200 | J2 | \$246.00 | 100 | 200 | J2 | \$246.00 |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| 1 | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| | 17 - 35 | | | | | | | 30 | K |
| 3 | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| | 65 - 135 | 25 | M | 30 | M | | | | |
| 4 | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|------------------------------|------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D | \$264.00 |
| 2NO | E | \$264.00 |
| 2NC | F | \$264.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR411 Magnetic Starters

Section 1

Reversing, Combination, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ³ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

²Available for Type 1 Enclosure only.

³Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|--------------------|
| None | A | \$0.00 |
| FWD/REV/Stop Push Button | J | \$240.00 |
| Up/Down/Stop Push Button | K | \$240.00 |
| Open/CLS/Stop Push Button | L | \$240.00 |
| HOA & FWD-REV Selector Switch | P | \$264.00 |
| FWD-OFF-REV Selector Switch | T | \$132.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|---------------------------------------|--|------|--------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR411 Magnetic Starters

Section 1

Reversing, Combination, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁴ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁴ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁵ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁴ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁴ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁵ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{4,5} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁴Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁵Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR310, CR410 Magnetic Starters

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-5, Thermal Magnetic Circuit Breaker Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List Price \$9.00 each, GO-10H.**

CR310/410 Reversing Thermal Magnetic Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 2 | 18 | 15 | 410B108TC1AAAAA | \$1074.00 | 410B608TC1AAAAA | \$1278.00 | 410B208TC1AAAAA | \$1278.00 | 410B408TC1AAAAA | \$1806.00 |
| 200-208 | 0 | 3 | 18 | 20 | 410B108TD1AAAAA | \$1074.00 | 410B608TD1AAAAA | \$1278.00 | 410B208TD1AAAAA | \$1278.00 | 410B408TD1AAAAA | \$1806.00 |
| 200-208 | 1 | 5 | 27 | 30 | 410C108TF1AAAAA | \$1146.00 | 410C608TF1AAAAA | \$1350.00 | 410C208TF1AAAAA | \$1350.00 | 410C408TF1AAAAA | \$1878.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 410C108TG1AAAAA | \$1182.00 | 410C608TG1AAAAA | \$1386.00 | 410C208TG1AAAAA | \$1386.00 | 410C408TG1AAAAA | \$1914.00 |
| 200-208 | 2 | 10 | 45 | 50 | 410D108TH1AAAAA | \$1830.00 | 410D608TH1AAAAA | \$2094.00 | 410D208TH1AAAAA | \$2094.00 | 410D408TH1AAAAA | \$2946.00 |
| 200-208 | 3 | 15 | 90 | 80 | 410E108TL1AAAAA | \$2736.00 | 410E608TL1AAAAA | \$3084.00 | 410E208TL1AAAAA | \$3084.00 | 410E408TL1AAAAA | \$4692.00 |
| 200-208 | 3 | 20 | 90 | 100 | 410E108TN1AAAAA | \$2736.00 | 410E608TN1AAAAA | \$3084.00 | 410E208TN1AAAAA | \$3084.00 | 410E408TN1AAAAA | \$4692.00 |
| 200-208 | 3 | 25 | 90 | 125 | 410E108TQ1AAAAA | \$3366.00 | 410E608TQ1AAAAA | \$3714.00 | 410E208TQ1AAAAA | \$3714.00 | 410E408TQ1AAAAA | \$5322.00 |
| 200-208 | 4 | 30 | 135 | 150 | 410F108TR1AAAAA | \$6198.00 | 410F608TR1AAAAA | \$7152.00 | 410F208TR1AAAAA | \$7152.00 | 410F408TR1AAAAA | \$8670.00 |
| 200-208 | 4 | 40 | 135 | 200 | 410F108TT1AAAAA | \$6198.00 | 410F608TT1AAAAA | \$7152.00 | 410F208TT1AAAAA | \$7152.00 | 410F408TT1AAAAA | \$8670.00 |
| 200-208 | 5 | 75 | 270 | 400 | 310G123CAA | \$12555.00 | 310G623CAA | \$14823.00 | 310G223CAA | \$14823.00 | - | - |
| 230-240 | 0 | 3 | 18 | 15 | 410B103TC1AAAAA | \$1074.00 | 410B603TC1AAAAA | \$1278.00 | 410B203TC1AAAAA | \$1278.00 | 410B403TC1AAAAA | \$1806.00 |
| 230-240 | 1 | 5 | 27 | 25 | 410C103TE1AAAAA | \$1146.00 | 410C603TE1AAAAA | \$1350.00 | 410C203TE1AAAAA | \$1350.00 | 410C403TE1AAAAA | \$1878.00 |
| 230-240 | 1 | 7 1/2 | 27 | 40 | 410C103TG1AAAAA | \$1182.00 | 410C603TG1AAAAA | \$1386.00 | 410C203TG1AAAAA | \$1386.00 | 410C403TG1AAAAA | \$1914.00 |
| 230-240 | 2 | 10 | 45 | 50 | 410D103TH1AAAAA | \$1830.00 | 410D603TH1AAAAA | \$2094.00 | 410D203TH1AAAAA | \$2094.00 | 410D403TH1AAAAA | \$2946.00 |
| 230-240 | 2 | 15 | 45 | 70 | 410D103TK1AAAAA | \$1902.00 | 410D603TK1AAAAA | \$2166.00 | 410D203TK1AAAAA | \$2166.00 | 410D403TK1AAAAA | \$3018.00 |
| 230-240 | 3 | 20 | 90 | 90 | 410E103TM1AAAAA | \$2736.00 | 410E603TM1AAAAA | \$3084.00 | 410E203TM1AAAAA | \$3084.00 | 410E403TM1AAAAA | \$4692.00 |
| 230-240 | 3 | 25 | 90 | 110 | 410E103TP1AAAAA | \$2736.00 | 410E603TP1AAAAA | \$3084.00 | 410E203TP1AAAAA | \$3084.00 | 410E403TP1AAAAA | \$4692.00 |
| 230-240 | 3 | 30 | 90 | 125 | 410E103TQ1AAAAA | \$3366.00 | 410E603TQ1AAAAA | \$3714.00 | 410E203TQ1AAAAA | \$3714.00 | 410E403TQ1AAAAA | \$5322.00 |
| 230-240 | 4 | 40 | 135 | 175 | 410F103TS1AAAAA | \$6801.00 | 410F603TS1AAAAA | \$7755.00 | 410F203TS1AAAAA | \$7755.00 | 410F403TS1AAAAA | \$9273.00 |
| 230-240 | 4 | 50 | 135 | 200 | 410F103TT1AAAAA | \$6198.00 | 410F603TT1AAAAA | \$7152.00 | 410F203TT1AAAAA | \$7152.00 | 410F403TT1AAAAA | \$8670.00 |
| 230-240 | 5 | 60 | 270 | 250 | 310G103AAA | \$12555.00 | 310G603AAA | \$14823.00 | 310G203AAA | \$14823.00 | - | - |
| 230-240 | 5 | 75 | 270 | 300 | 310G103BAA | \$12555.00 | 310G603BAA | \$14823.00 | 310G203BAA | \$14823.00 | - | - |
| 230-240 | 5 | 100 | 270 | 400 | 310G103CAA | \$12555.00 | 310G603CAA | \$14823.00 | 310G203CAA | \$14823.00 | - | - |
| 460-480 | 0 | 5 | 18 | 15 | 410B104TC1AAAAA | \$1074.00 | 410B604TC1AAAAA | \$1278.00 | 410B204TC1AAAAA | \$1278.00 | 410B404TC1AAAAA | \$1806.00 |
| 460-480 | 1 | 7 1/2 | 27 | 20 | 410C104TD1AAAAA | \$1146.00 | 410C604TD1AAAAA | \$1350.00 | 410C204TD1AAAAA | \$1350.00 | 410C404TD1AAAAA | \$1878.00 |
| 460-480 | 1 | 10 | 27 | 25 | 410C104TE1AAAAA | \$1146.00 | 410C604TE1AAAAA | \$1350.00 | 410C204TE1AAAAA | \$1350.00 | 410C404TE1AAAAA | \$1878.00 |
| 460-480 | 2 | 15 | 45 | 40 | 410D104TG1AAAAA | \$1830.00 | 410D604TG1AAAAA | \$2094.00 | 410D204TG1AAAAA | \$2094.00 | 410D404TG1AAAAA | \$2946.00 |
| 460-480 | 2 | 20 | 45 | 50 | 410D104TH1AAAAA | \$1830.00 | 410D604TH1AAAAA | \$2094.00 | 410D204TH1AAAAA | \$2094.00 | 410D404TH1AAAAA | \$2946.00 |
| 460-480 | 2 | 25 | 45 | 60 | 410D104TJ1AAAAA | \$1902.00 | 410D604TJ1AAAAA | \$2166.00 | 410D204TJ1AAAAA | \$2166.00 | 410D404TJ1AAAAA | \$3018.00 |
| 460-480 | 3 | 30 | 90 | 60 | 410E104TJ1AAAAA | \$2736.00 | 410E604TJ1AAAAA | \$3084.00 | 410E204TJ1AAAAA | \$3084.00 | 410E404TJ1AAAAA | \$4692.00 |
| 460-480 | 3 | 40 | 90 | 80 | 410E104TL1AAAAA | \$2736.00 | 410E604TL1AAAAA | \$3084.00 | 410E204TL1AAAAA | \$3084.00 | 410E404TL1AAAAA | \$4692.00 |
| 460-480 | 3 | 50 | 90 | 100 | 410E104TN1AAAAA | \$2736.00 | 410E604TN1AAAAA | \$3084.00 | 410E204TN1AAAAA | \$3084.00 | 410E404TN1AAAAA | \$4692.00 |
| 460-480 | 4 | 60 | 135 | 125 | 410F104TQ1AAAAA | \$6198.00 | 410F604TQ1AAAAA | \$7152.00 | 410F204TQ1AAAAA | \$7152.00 | 410F404TQ1AAAAA | \$8670.00 |
| 460-480 | 4 | 75 | 135 | 150 | 410F104TR1AAAAA | \$6198.00 | 410F604TR1AAAAA | \$7152.00 | 410F204TR1AAAAA | \$7152.00 | 410F404TR1AAAAA | \$8670.00 |
| 460-480 | 4 | 100 | 135 | 200 | 410F104TT1AAAAA | \$6198.00 | 410F604TT1AAAAA | \$7152.00 | 410F204TT1AAAAA | \$7152.00 | 410F404TT1AAAAA | \$8670.00 |
| 460-480 | 5 | 125 | 270 | 250 | 310G104AAA ¹ | \$12555.00 | 310G604AAA ¹ | \$14823.00 | 310G204AAA ¹ | \$14823.00 | - | - |
| 460-480 | 5 | 150 | 270 | 300 | 310G104BAA | \$12555.00 | 310G604BAA | \$14823.00 | 310G204BAA | \$14823.00 | - | - |
| 460-480 | 5 | 200 | 270 | 400 | 310G104CAA | \$12555.00 | 310G604CAA | \$14823.00 | 310G204CAA | \$14823.00 | - | - |
| 575-600 | 0 | 5 | 18 | 15 | 410B105TC1AAAAA | \$1074.00 | 410B605TC1AAAAA | \$1278.00 | 410B205TC1AAAAA | \$1278.00 | 410B405TC1AAAAA | \$1806.00 |
| 575-600 | 1 | 7 1/2 | 27 | 15 | 410C105TC1AAAAA | \$1146.00 | 410C605TC1AAAAA | \$1350.00 | 410C205TC1AAAAA | \$1350.00 | 410C405TC1AAAAA | \$1878.00 |
| 575-600 | 1 | 10 | 27 | 20 | 410C105TD1AAAAA | \$1146.00 | 410C605TD1AAAAA | \$1350.00 | 410C205TD1AAAAA | \$1350.00 | 410C405TD1AAAAA | \$1878.00 |
| 575-600 | 2 | 15 | 45 | 30 | 410D105TF1AAAAA | \$1866.00 | 410D605TF1AAAAA | \$2130.00 | 410D205TF1AAAAA | \$2130.00 | 410D405TF1AAAAA | \$2982.00 |
| 575-600 | 2 | 20 | 45 | 40 | 410D105TG1AAAAA | \$1830.00 | 410D605TG1AAAAA | \$2094.00 | 410D205TG1AAAAA | \$2094.00 | 410D405TG1AAAAA | \$2946.00 |
| 575-600 | 2 | 25 | 45 | 50 | 410D105TH1AAAAA | \$1830.00 | 410D605TH1AAAAA | \$2094.00 | 410D205TH1AAAAA | \$2094.00 | 410D405TH1AAAAA | \$2946.00 |
| 575-600 | 3 | 30 | 90 | 50 | 410E105TH1AAAAA | \$2910.00 | 410E605TH1AAAAA | \$3258.00 | 410E205TH1AAAAA | \$3258.00 | 410E405TH1AAAAA | \$4866.00 |
| 575-600 | 3 | 40 | 90 | 70 | 410E105TK1AAAAA | \$2736.00 | 410E605TK1AAAAA | \$3084.00 | 410E205TK1AAAAA | \$3084.00 | 410E405TK1AAAAA | \$4692.00 |
| 575-600 | 3 | 50 | 90 | 80 | 410E105TL1AAAAA | \$2736.00 | 410E605TL1AAAAA | \$3084.00 | 410E205TL1AAAAA | \$3084.00 | 410E405TL1AAAAA | \$4692.00 |
| 575-600 | 4 | 60 | 135 | 100 | 410F105TN1AAAAA | \$6801.00 | 410F605TN1AAAAA | \$7755.00 | 410F205TN1AAAAA | \$7755.00 | 410F405TN1AAAAA | \$9273.00 |
| 575-600 | 4 | 75 | 135 | 125 | 410F105TQ1AAAAA | \$6198.00 | 410F605TQ1AAAAA | \$7152.00 | 410F205TQ1AAAAA | \$7152.00 | 410F405TQ1AAAAA | \$8670.00 |
| 575-600 | 4 | 100 | 135 | 150 | 410F105TR1AAAAA | \$6198.00 | 410F605TR1AAAAA | \$7152.00 | 410F205TR1AAAAA | \$7152.00 | 410F405TR1AAAAA | \$8670.00 |
| 575-600 | 5 | 150 | 270 | 250 | 310G105AAA | \$12555.00 | 310G605AAA | \$14823.00 | 310G205AAA | \$14823.00 | - | - |
| 575-600 | 5 | 200 | 270 | 300 | 310G105BAA | \$12555.00 | 310G605BAA | \$14823.00 | 310G205BAA | \$14823.00 | - | - |

¹For ordinary starting duty only. Breaker with higher rating is recommended for frequent starts or long accelerating time.

- NEMA Size 0-5 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR410B103TC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR410B102TC1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR410 Magnetic Starters

Section 1

Reversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| | Standard Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 | Standard Enclosure CR | List Price GO-10G1 |
| 0 | 410B1 | \$936.00 | 410B6 | \$1140.00 | 410B2 | \$1140.00 | 410B4 | \$1668.00 |
| 1 | 410C1 | \$1008.00 | 410C6 | \$1212.00 | 410C2 | \$1212.00 | 410C4 | \$1740.00 |
| 2 | 410D1 | \$1692.00 | 410D6 | \$1956.00 | 410D2 | \$1956.00 | 410D4 | \$2808.00 |
| 3 | 410E1 | \$2736.00 | 410E6 | \$3084.00 | 410E2 | \$3084.00 | 410E4 | \$4692.00 |
| 4 | 410F1 | \$6198.00 | 410F6 | \$7152.00 | 410F2 | \$7152.00 | 410F4 | \$8670.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR410 Magnetic Starters

Section 1

Reversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | | |
| 120V | - | | | | | | - | | | | | | |
| 240V | - | | | | | | - | | | | | | |
| 480V | - | | | | | | - | | | | | | |
| 600V | - | | | | | | - | | | | | | |
| 208V | - | | | | | | - | | | | | | |
| 24V ¹ | - | | | | | | - | | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - | |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Thermal-Mag Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | | | | |
|-----------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|------|--------------------|----------|--------|----------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | | | |
| 0 | 2 | 15 | TC | \$138.00 | 3 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | | | |
| | 3 | 20 | TD | \$138.00 | | 20 | TD | \$138.00 | | 20 | TD | \$138.00 | | 20 | TD | \$138.00 | | | |
| 1 | 15 | TC | \$138.00 | | 15 | TC | \$138.00 | | 15 | TC | \$138.00 | | 7 1/2 | 15 | TC | \$138.00 | | | |
| | 20 | TD | \$138.00 | | 20 | TD | \$138.00 | | 7 1/2 | 20 | TD | \$138.00 | 10 | 20 | TD | \$138.00 | | | |
| | 25 | TE | \$138.00 | | 5 | 25 | TE | \$138.00 | | 10 | 25 | TE | \$138.00 | | 25 | TE | \$138.00 | | |
| | 5 | 30 | TF | \$138.00 | | 30 | TF | \$138.00 | | 30 | TF | \$138.00 | | 30 | TF | \$138.00 | | | |
| | 7 1/2 | 40 | TG | \$174.00 | | 7 1/2 | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | | 40 | TG | \$174.00 | | |
| 2 | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 30 | TF | \$174.00 | | 15 | 30 | TF | \$174.00 | | | |
| | 40 | TG | \$138.00 | | 40 | TG | \$138.00 | | 15 | 40 | TG | \$138.00 | | 20 | 40 | TG | \$138.00 | | |
| | 10 | 50 | TH | \$138.00 | | 10 | 50 | TH | \$138.00 | | 20 | 50 | TH | \$138.00 | | 25 | 50 | TH | \$138.00 |
| | 60 | TJ | \$210.00 | | 60 | TJ | \$210.00 | | 25 | 60 | TJ | \$210.00 | | 60 | TJ | \$210.00 | | | |
| 3 | 70 | TK | \$210.00 | | 15 | 70 | TK | \$210.00 | | 70 | TK | \$210.00 | | 70 | TK | \$210.00 | | | |
| | 50 | TH | \$174.00 | | 50 | TH | \$174.00 | | 50 | TH | \$174.00 | | 30 | 50 | TH | \$174.00 | | | |
| | 60 | TJ | \$0.00 | | 60 | TJ | \$0.00 | | 30 | 60 | TJ | \$0.00 | | 60 | TJ | \$0.00 | | | |
| | 70 | TK | \$0.00 | | 70 | TK | \$0.00 | | 70 | TK | \$0.00 | | 40 | 70 | TK | \$0.00 | | | |
| | 15 | 80 | TL | \$0.00 | | 80 | TL | \$0.00 | | 40 | 80 | TL | \$0.00 | | 50 | 80 | TL | \$0.00 | |
| | 90 | TM | \$0.00 | | 20 | 90 | TM | \$0.00 | | 90 | TM | \$0.00 | | 90 | TM | \$0.00 | | | |
| | 20 | 100 | TN | \$0.00 | | 100 | TN | \$0.00 | | 50 | 100 | TN | \$0.00 | | 100 | TN | \$0.00 | | |
| 4 | 110 | TP | \$0.00 | | 25 | 110 | TP | \$0.00 | | 110 | TP | \$0.00 | | 110 | TP | \$0.00 | | | |
| | 25 | 125 | TQ | \$630.00 | | 30 | 125 | TQ | \$630.00 | | 125 | TQ | \$630.00 | | 125 | TQ | \$630.00 | | |
| | 100 | TN | \$603.00 | | 100 | TN | \$603.00 | | 100 | TN | \$603.00 | | 60 | 100 | TN | \$603.00 | | | |
| | 125 | TQ | \$0.00 | | 125 | TQ | \$0.00 | | 60 | 125 | TQ | \$0.00 | | 75 | 125 | TQ | \$0.00 | | |
| | 30 | 150 | TR | \$0.00 | | 150 | TR | \$0.00 | | 75 | 150 | TR | \$0.00 | | 100 | 150 | TR | \$0.00 | |
| 4 | 175 | TS | \$603.00 | | 40 | 175 | TS | \$603.00 | | 175 | TS | \$603.00 | | 175 | TS | \$603.00 | | | |
| | 40 | 200 | TT | \$0.00 | | 50 | 200 | TT | \$0.00 | | 100 | 200 | TT | \$0.00 | | 200 | TT | \$0.00 | |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table on page 1-76.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR410 Magnetic Starters

Section 1

Reversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay (continued)

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|-----------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| 3 | 17 - 35 | | | | | | | 30 | K |
| | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| | 65 - 135 | 25 | M | 30 | M | | | | |
| 4 | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|------------------------------|------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D | \$264.00 |
| 2NO | E | \$264.00 |
| 2NC | F | \$264.00 |

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ³ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

²Available for Type 1 Enclosure only.

³Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|--------------------|
| None | A | \$0.00 |
| FWD/REV/Stop Push Button | J | \$240.00 |
| Up/Down/Stop Push Button | K | \$240.00 |
| Open/CLS/Stop Push Button | L | \$240.00 |
| HOA & FWD-REV Selector Switch | P | \$264.00 |
| FWD-OFF-REV Selector Switch | T | \$132.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR410 Magnetic Starters

Section 1

Reversing, Combination, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁴ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁴ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁵ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁴ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁴ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁵ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{4,5} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁴Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁵Maximum number of auxiliary contacts shall be reduced by 1.

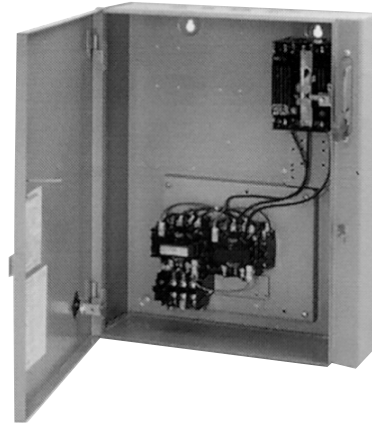
GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR390, CR490 Mag-Break Magnetic Starters

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X
200 Horsepower Maximum
NEMA Sizes 0-5
600 Volts Maximum 50/60Hz



NEMA Size 2 Combination Reverser in
NEMA Type 1 Enclosure

Application

Used for full-voltage starting and reversing of squirrel cage induction motors up to 200 horsepower maximum, 600 Volts maximum. Consists of Spectra™ Mag-Break motor circuit protector for branch circuit protection (Sizes 0-4), reversing controller, and three-leg block overload relay. Refer to page 1-7 for features of basic starter.

Features

- Spectra™ Mag-Break motor circuit protector (Sizes 0-4) – provides protection against faults and has adjustable trip.
- Meets NEC standards – continuous current ratings and adjustable instantaneous trip ranges meet NEC standards on motor full-load and locked rotor currents.
- Can eliminate nuisance tripping and provide fault protection – by setting the Mag-Break instantaneous trip point just above transient motor inrush current
- Less than one cycle clearing time – to open and clear a fault

Product Number Selection Instructions

1. Specify starter by complete Product Number.
Example: CR490D104MF1AAAAA @ **\$1830.00, GO-10G1.**
2. Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159, based on motor full-load current.
3. Order forms not listed or special features by complete description using a listed Product Number as reference wherever possible.
Example: Similar to CR490D104MF1AAAAA except with 460/120 Volt control transformer @ **\$2182.00, GO-10G1, total list price**
4. **50 Hertz Starters**
Pricing for 50 Hertz forms (at standard voltages) is the same as shown in table for 60 Hertz. List prices for 460-480Volts, 60 Hertz also apply to 380-415 Volts, 50 Hertz. See page 1-4 for 380-415Volt horsepower ratings.
5. **Product Notes**
Motor full-load current should not exceed continuous ampere rating of starter.

Reference Publications

| Instructions | Publication Number |
|--------------|--------------------|
| NEMA Size | |
| 0, 1 | GEH-5190 |
| 2 | GEH-4775 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |

CR390, CR490, Mag-Break Magnetic Starters – Contents

| | |
|--|------|
| Application Information and Selection Instructions | 1-78 |
| Mag-Break Circuit Breaker Type (CR390, CR490) | 1-79 |
| Mag-Break Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR490)..... | 1-80 |
| Outlines and Dimensions..... | 1-84 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR390, CR490 Mag-Break Magnetic Starters

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-5, Mag-Break Circuit Breaker Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, mechanical and cross-electrical interlock on each contactor, pressure terminals for the line and load connections, plus a 3-leg block type overload relay (manual reset). All enclosures include external reset. Three heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR390/490 Reversing Mag-Break Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 1 | 18 | 7 | 490B108MB1AAAAA | \$1074.00 | 490B608MB1AAAAA | \$1278.00 | 490B208MB1AAAAA | \$1278.00 | 490B408MB1AAAAA | \$1806.00 |
| 200-208 | 0 | 3 | 18 | 15 | 490B108MC1AAAAA | \$1074.00 | 490B608MC1AAAAA | \$1278.00 | 490B208MC1AAAAA | \$1278.00 | 490B408MC1AAAAA | \$1806.00 |
| 200-208 | 1 | 5 | 27 | 25 | 490C108ME1AAAAA | \$1146.00 | 490C608ME1AAAAA | \$1350.00 | 490C208ME1AAAAA | \$1350.00 | 490C408ME1AAAAA | \$1878.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 490C108MG1AAAAA | \$1146.00 | 490C608MG1AAAAA | \$1350.00 | 490C208MG1AAAAA | \$1350.00 | 490C408MG1AAAAA | \$1878.00 |
| 200-208 | 2 | 10 | 45 | 50 | 490D108MH1AAAAA | \$1830.00 | 490D608MH1AAAAA | \$2094.00 | 490D208MH1AAAAA | \$2094.00 | 490D408MH1AAAAA | \$2946.00 |
| 200-208 | 3 | 15 | 90 | 70 | 490E108MK1AAAAA | \$2736.00 | 490E608MK1AAAAA | \$3084.00 | 490E208MK1AAAAA | \$3084.00 | 490E408MK1AAAAA | \$4692.00 |
| 200-208 | 3 | 20 | 90 | 80 | 490E108ML1AAAAA | \$2736.00 | 490E608ML1AAAAA | \$3084.00 | 490E208ML1AAAAA | \$3084.00 | 490E408ML1AAAAA | \$4692.00 |
| 200-208 | 3 | 25 | 90 | 100 | 490E108MN1AAAAA | \$2736.00 | 490E608MN1AAAAA | \$3084.00 | 490E208MN1AAAAA | \$3084.00 | 490E408MN1AAAAA | \$4692.00 |
| 200-208 | 4 | 30 | 135 | 125 | 490F108MQ1AAAAA | \$6198.00 | 490F608MQ1AAAAA | \$7152.00 | 490F208MQ1AAAAA | \$7152.00 | 490F408MQ1AAAAA | \$8670.00 |
| 200-208 | 4 | 40 | 135 | 150 | 490F108MR1AAAAA | \$6198.00 | 490F608MR1AAAAA | \$7152.00 | 490F208MR1AAAAA | \$7152.00 | 490F408MR1AAAAA | \$8670.00 |
| 200-208 | 5 | 75 | 270 | 400 | 390G123CAAA | \$12555.00 | 390G623CAAA | \$14823.00 | 390G223CAUA | \$14823.00 | - | - |
| 230-240 | 0 | 1/2 | 18 | 3 | 490B103MA1AAAAA | \$1074.00 | 490B603MA1AAAAA | \$1278.00 | 490B203MA1AAAAA | \$1278.00 | 490B403MA1AAAAA | \$1806.00 |
| 230-240 | 0 | 1 | 18 | 7 | 490B103MB1AAAAA | \$1074.00 | 490B603MB1AAAAA | \$1278.00 | 490B203MB1AAAAA | \$1278.00 | 490B403MB1AAAAA | \$1806.00 |
| 230-240 | 0 | 3 | 18 | 15 | 490B103MC1AAAAA | \$1074.00 | 490B603MC1AAAAA | \$1278.00 | 490B203MC1AAAAA | \$1278.00 | 490B403MC1AAAAA | \$1806.00 |
| 230-240 | 1 | 5 | 27 | 25 | 490C103ME1AAAAA | \$1146.00 | 490C603ME1AAAAA | \$1350.00 | 490C203ME1AAAAA | \$1350.00 | 490C403ME1AAAAA | \$1878.00 |
| 230-240 | 1 | 7 1/2 | 27 | 30 | 490C103MF1AAAAA | \$1146.00 | 490C603MF1AAAAA | \$1350.00 | 490C203MF1AAAAA | \$1350.00 | 490C403MF1AAAAA | \$1878.00 |
| 230-240 | 2 | 10 | 45 | 40 | 490D103MG1AAAAA | \$1830.00 | 490D603MG1AAAAA | \$2094.00 | 490D203MG1AAAAA | \$2094.00 | 490D403MG1AAAAA | \$2946.00 |
| 230-240 | 2 | 15 | 45 | 60 | 490D103MJ1AAAAA | \$1830.00 | 490D603MJ1AAAAA | \$2094.00 | 490D203MJ1AAAAA | \$2094.00 | 490D403MJ1AAAAA | \$2946.00 |
| 230-240 | 3 | 20 | 90 | 70 | 490E103MK1AAAAA | \$2736.00 | 490E603MK1AAAAA | \$3084.00 | 490E203MK1AAAAA | \$3084.00 | 490E403MK1AAAAA | \$4692.00 |
| 230-240 | 3 | 25 | 90 | 90 | 490E103MM1AAAAA | \$2736.00 | 490E603MM1AAAAA | \$3084.00 | 490E203MM1AAAAA | \$3084.00 | 490E403MM1AAAAA | \$4692.00 |
| 230-240 | 3 | 30 | 90 | 100 | 490E103MN1AAAAA | \$2736.00 | 490E603MN1AAAAA | \$3084.00 | 490E203MN1AAAAA | \$3084.00 | 490E403MN1AAAAA | \$4692.00 |
| 230-240 | 4 | 40 | 135 | 150 | 490F103MR1AAAAA | \$6198.00 | 490F603MR1AAAAA | \$7152.00 | 490F203MR1AAAAA | \$7152.00 | 490F403MR1AAAAA | \$8670.00 |
| 230-240 | 4 | 50 | 135 | 175 | 490F103MS1AAAAA | \$6198.00 | 490F603MS1AAAAA | \$7152.00 | 490F203MS1AAAAA | \$7152.00 | 490F403MS1AAAAA | \$8670.00 |
| 230-240 | 5 | 100 | 270 | 400 | 390G103CAAA | \$12555.00 | 390G603CAAA | \$14823.00 | 390G203CAUA | \$14823.00 | - | - |
| 460-480 | 0 | 1 | 18 | 3 | 490B104MA1AAAAA | \$1074.00 | 490B604MA1AAAAA | \$1278.00 | 490B204MA1AAAAA | \$1278.00 | 490B404MA1AAAAA | \$1806.00 |
| 460-480 | 0 | 3 | 18 | 7 | 490B104MB1AAAAA | \$1074.00 | 490B604MB1AAAAA | \$1278.00 | 490B204MB1AAAAA | \$1278.00 | 490B404MB1AAAAA | \$1806.00 |
| 460-480 | 0 | 5 | 18 | 15 | 490B104MC1AAAAA | \$1074.00 | 490B604MC1AAAAA | \$1278.00 | 490B204MC1AAAAA | \$1278.00 | 490B404MC1AAAAA | \$1806.00 |
| 460-480 | 1 | 7 1/2 | 27 | 15 | 490C104MC1AAAAA | \$1146.00 | 490C604MC1AAAAA | \$1350.00 | 490C204MC1AAAAA | \$1350.00 | 490C404MC1AAAAA | \$1878.00 |
| 460-480 | 1 | 10 | 27 | 20 | 490C104MD1AAAAA | \$1146.00 | 490C604MD1AAAAA | \$1350.00 | 490C204MD1AAAAA | \$1350.00 | 490C404MD1AAAAA | \$1878.00 |
| 460-480 | 2 | 15 | 45 | 30 | 490D104MF1AAAAA | \$1830.00 | 490D604MF1AAAAA | \$2094.00 | 490D204MF1AAAAA | \$2094.00 | 490D404MF1AAAAA | \$2946.00 |
| 460-480 | 2 | 20 | 45 | 40 | 490D104MG1AAAAA | \$1830.00 | 490D604MG1AAAAA | \$2094.00 | 490D204MG1AAAAA | \$2094.00 | 490D404MG1AAAAA | \$2946.00 |
| 460-480 | 2 | 25 | 45 | 50 | 490D104MH1AAAAA | \$1830.00 | 490D604MH1AAAAA | \$2094.00 | 490D204MH1AAAAA | \$2094.00 | 490D404MH1AAAAA | \$2946.00 |
| 460-480 | 3 | 30 | 90 | 50 | 490E104MK1AAAAA | \$2736.00 | 490E604MK1AAAAA | \$3084.00 | 490E204MK1AAAAA | \$3084.00 | 490E404MK1AAAAA | \$4692.00 |
| 460-480 | 3 | 40 | 90 | 70 | 490E104ML1AAAAA | \$2736.00 | 490E604ML1AAAAA | \$3084.00 | 490E204ML1AAAAA | \$3084.00 | 490E404ML1AAAAA | \$4692.00 |
| 460-480 | 3 | 50 | 90 | 90 | 490E104MN1AAAAA | \$2736.00 | 490E604MN1AAAAA | \$3084.00 | 490E204MN1AAAAA | \$3084.00 | 490E404MN1AAAAA | \$4692.00 |
| 460-480 | 4 | 60 | 135 | 100 | 490F104MQ1AAAAA | \$6198.00 | 490F604MQ1AAAAA | \$7152.00 | 490F204MQ1AAAAA | \$7152.00 | 490F404MQ1AAAAA | \$8670.00 |
| 460-480 | 4 | 75 | 135 | 125 | 490F104MR1AAAAA | \$6198.00 | 490F604MR1AAAAA | \$7152.00 | 490F204MR1AAAAA | \$7152.00 | 490F404MR1AAAAA | \$8670.00 |
| 460-480 | 4 | 100 | 135 | 175 | 490F104MS1AAAAA | \$6198.00 | 490F604MS1AAAAA | \$7152.00 | 490F204MS1AAAAA | \$7152.00 | 490F404MS1AAAAA | \$8670.00 |
| 460-480 | 5 | 200 | 270 | 400 | 390G104CAAA | \$12555.00 | 390G604CAAA | \$14823.00 | 390G204CAUA | \$14823.00 | - | - |
| 575-600 | 0 | 1 | 18 | 3 | 490B105MA1AAAAA | \$1074.00 | 490B605MA1AAAAA | \$1278.00 | 490B205MA1AAAAA | \$1278.00 | 490B405MA1AAAAA | \$1806.00 |
| 575-600 | 0 | 3 | 18 | 7 | 490B105MB1AAAAA | \$1074.00 | 490B605MB1AAAAA | \$1278.00 | 490B205MB1AAAAA | \$1278.00 | 490B405MB1AAAAA | \$1806.00 |
| 575-600 | 0 | 5 | 18 | 15 | 490B105MC1AAAAA | \$1074.00 | 490B605MC1AAAAA | \$1278.00 | 490B205MC1AAAAA | \$1278.00 | 490B405MC1AAAAA | \$1806.00 |
| 575-600 | 1 | 10 | 27 | 15 | 490C105MC1AAAAA | \$1146.00 | 490C605MC1AAAAA | \$1350.00 | 490C205MC1AAAAA | \$1350.00 | 490C405MC1AAAAA | \$1878.00 |
| 575-600 | 2 | 15 | 45 | 25 | 490D105ME1AAAAA | \$1830.00 | 490D605ME1AAAAA | \$2094.00 | 490D205ME1AAAAA | \$2094.00 | 490D405ME1AAAAA | \$2946.00 |
| 575-600 | 2 | 20 | 45 | 30 | 490D105MF1AAAAA | \$1830.00 | 490D605MF1AAAAA | \$2094.00 | 490D205MF1AAAAA | \$2094.00 | 490D405MF1AAAAA | \$2946.00 |
| 575-600 | 2 | 25 | 45 | 40 | 490D105MG1AAAAA | \$1830.00 | 490D605MG1AAAAA | \$2094.00 | 490D205MG1AAAAA | \$2094.00 | 490D405MG1AAAAA | \$2946.00 |
| 575-600 | 3 | 30 | 90 | 40 | 490E105MG1AAAAA | \$2736.00 | 490E605MG1AAAAA | \$3084.00 | 490E205MG1AAAAA | \$3084.00 | 490E405MG1AAAAA | \$4692.00 |
| 575-600 | 3 | 40 | 90 | 60 | 490E105MJ1AAAAA | \$2736.00 | 490E605MJ1AAAAA | \$3084.00 | 490E205MJ1AAAAA | \$3084.00 | 490E405MJ1AAAAA | \$4692.00 |
| 575-600 | 3 | 50 | 90 | 70 | 490E105MK1AAAAA | \$2736.00 | 490E605MK1AAAAA | \$3084.00 | 490E205MK1AAAAA | \$3084.00 | 490E405MK1AAAAA | \$4692.00 |
| 575-600 | 4 | 60 | 135 | 80 | 490F105ML1AAAAA | \$6198.00 | 490F605ML1AAAAA | \$7152.00 | 490F205ML1AAAAA | \$7152.00 | 490F405ML1AAAAA | \$8670.00 |
| 575-600 | 4 | 75 | 135 | 100 | 490F105MN1AAAAA | \$6198.00 | 490F605MN1AAAAA | \$7152.00 | 490F205MN1AAAAA | \$7152.00 | 490F405MN1AAAAA | \$8670.00 |
| 575-600 | 4 | 100 | 135 | 150 | 490F105MR1AAAAA | \$6198.00 | 490F605MR1AAAAA | \$7152.00 | 490F205MR1AAAAA | \$7152.00 | 490F405MR1AAAAA | \$8670.00 |
| 575-600 | 5 | 125 | 270 | 400 | 390G105BAAA | \$12555.00 | 390G605BAAA | \$14823.00 | 390G205BAUA | \$14823.00 | - | - |
| 575-600 | 5 | 200 | 270 | 400 | 390G105CAAA | \$12555.00 | 390G605CAAA | \$14823.00 | 390G205CAUA | \$14823.00 | - | - |

- NEMA Size 0-5 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR490B408MB1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR490B402MB1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR490 Mag-Break Magnetic Starters

Reversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 490B1 | \$1074.00 | 490B6 | \$1278.00 | 490B2 | \$1278.00 | 490B4 | \$1806.00 |
| 1 | 490C1 | \$1146.00 | 490C6 | \$1350.00 | 490C2 | \$1350.00 | 490C4 | \$1878.00 |
| 2 | 490D1 | \$1830.00 | 490D6 | \$2094.00 | 490D2 | \$2094.00 | 490D4 | \$2946.00 |
| 3 | 490E1 | \$2736.00 | 490E6 | \$3084.00 | 490E2 | \$3084.00 | 490E4 | \$4692.00 |
| 4 | 490F1 | \$6198.00 | 490F6 | \$7152.00 | 490F2 | \$7152.00 | 490F4 | \$8670.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR490 Mag-Break Magnetic Starters

Reversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| | Standard Size | NEMA Size | | | | | Standard Size | NEMA Size | | | | |
|-------------------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| Control Circuit Voltage & CPT | CPT + 100VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | CPT + 200VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Mag-Break Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|----------|------------------|--------|--------------------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | MA | \$0.00 | 1/2 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | |
| | 1 | 7 | MB | \$0.00 | 1 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 |
| | 3 | 15 | MC | \$0.00 | 3 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 |
| 1 | 15 | MC | \$0.00 | 15 | MC | \$0.00 | 7 1/2 | 15 | MC | \$0.00 | 10 | 15 | MC | \$0.00 | | |
| | 20 | MD | \$0.00 | 20 | MD | \$0.00 | 10 | 20 | MD | \$0.00 | 20 | 20 | MD | \$0.00 | | |
| | 5 | 25 | ME | \$0.00 | 5 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 |
| | 30 | MF | \$0.00 | 7 1/2 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | |
| 2 | 7 1/2 | 40 | MG | \$0.00 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | |
| | 25 | ME | \$0.00 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 15 | 25 | ME | \$0.00 | | |
| | 30 | MF | \$0.00 | 30 | MF | \$0.00 | 15 | 30 | MF | \$0.00 | 20 | 30 | MF | \$0.00 | | |
| | 40 | MG | \$0.00 | 10 | 40 | MG | \$0.00 | 20 | 40 | MG | \$0.00 | 25 | 40 | MG | \$0.00 | |
| | 10 | 50 | MH | \$0.00 | 50 | MH | \$0.00 | 25 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 | |
| 3 | 60 | MJ | \$0.00 | 15 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | |
| | 40 | MG | \$0.00 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 | 30 | 40 | MG | \$0.00 | | |
| | 50 | MH | \$0.00 | 50 | MH | \$0.00 | 30 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 | | |
| | 60 | MJ | \$0.00 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 40 | 60 | MJ | \$0.00 | | |
| | 15 | 70 | MK | \$0.00 | 20 | 70 | MK | \$0.00 | 40 | 70 | MK | \$0.00 | 50 | 70 | MK | \$0.00 |
| | 20 | 80 | ML | \$0.00 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | |
| 4 | 90 | MM | \$0.00 | 25 | 90 | MM | \$0.00 | 50 | 90 | MM | \$0.00 | 90 | 90 | MM | \$0.00 | |
| | 25 | 100 | MN | \$0.00 | 30 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 |
| | 80 | ML | \$0.00 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 | 60 | 80 | ML | \$0.00 | | |
| | 100 | MN | \$0.00 | 100 | MN | \$0.00 | 60 | 100 | MN | \$0.00 | 75 | 100 | MN | \$0.00 | | |
| | 30 | 125 | MQ | \$0.00 | 125 | MQ | \$0.00 | 75 | 125 | MQ | \$0.00 | 125 | 125 | MQ | \$0.00 | |
| | 40 | 150 | MR | \$0.00 | 40 | 150 | MR | \$0.00 | 150 | 150 | MR | \$0.00 | 100 | 150 | MR | \$0.00 |
| | 175 | MS | \$0.00 | 50 | 175 | MS | \$0.00 | 100 | 175 | MS | \$0.00 | 175 | 175 | MS | \$0.00 | |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR490 Mag-Break Magnetic Starters

Reversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$24.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$27.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$51.00 |
| Solid State Overload (1NO-1NC) | (#) | \$27.00 |

(#) Select Code for Solid State Overload amp rating from Standard or Optional Ranges table below.

Solid State Overload Relay - Standard Range

| NEMA Size | OL Range | 200-208V | | 230-240V | | 460-480V | | 575-600V | |
|--------------|------------|----------|------|----------|------|----------|------|----------|------|
| | | Max Hp | Code | Max Hp | Code | Max Hp | Code | Max Hp | Code |
| 0 | 0.8 - 1.7 | | | | | 3/4 | D | 1 | D |
| | 1.6 - 3.4 | 1/2 | E | 3/4 | E | 2 | E | 2 | E |
| | 3.2 - 6.8 | 1 | F | 2 | F | 3 | F | 5 | F |
| | 6.5 - 13.5 | 3 | G | 3 | G | 5 | G | | |
| 1 | 6.5 - 13.5 | | | | | 7 1/2 | G | 10 | G |
| | 13 - 27 | 7 1/2 | H | 7 1/2 | H | 10 | H | | |
| 2 | 13 - 27 | | | | | 20 | H | 25 | H |
| | 25 - 50 | 10 | J | 15 | J | 25 | J | | |
| 3 | 17 - 35 | | | | | | | 30 | K |
| | 35 - 70 | 20 | L | 25 | L | 50 | L | 50 | L |
| | 65 - 135 | 25 | M | 30 | M | | | | |
| | 65 - 135 | 40 | M | 50 | M | 100 | M | 100 | M |

Optional Ranges

| OL Amp Range | NEMA SIZE | | |
|--------------|-----------|---|-------|
| | 0 & 1 | 2 | 3 & 4 |
| 0.4 - 0.85 | C | - | - |
| 0.8 - 1.7 | D | - | - |
| 1.6 - 3.4 | E | - | - |
| 3.2 - 6.8 | F | - | - |
| 6.5 - 13.5 | G | G | - |
| 13 - 27 | H | H | - |
| 25 - 50 | - | J | - |
| 17 - 35 | - | - | K |
| 35 - 70 | - | - | L |
| 65 - 135 | - | - | M |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts | Code | List Price GO-10G1 |
|--------------|------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D | \$264.00 |
| 2NO | E | \$264.00 |
| 2NC | F | \$264.00 |

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ² | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ³ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ³ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{2,3} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

²Available for Type 1 Enclosure only.

³Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR490 Mag-Break Magnetic Starters

Reversing, Combination, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|--|------|-----------------------|
| None | A | \$0.00 |
| FWD/REV/Stop Push Button | J | \$240.00 |
| Up/Down/Stop Push Button | K | \$240.00 |
| Open/CLS/Stop Push Button | L | \$240.00 |
| HOA & FWD-REV Selector Switch | P | \$264.00 |
| FWD-OFF-REV Selector Switch | T | \$132.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | Code | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | Z | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁴ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁴ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁵ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁴ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁴ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁵ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{4,5} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁴ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁴ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{4,5} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁴Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁵Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

If selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) control circuit fusing, a control power transformer, or 24V/120V separate sourced control is required, regardless of protective device rating.



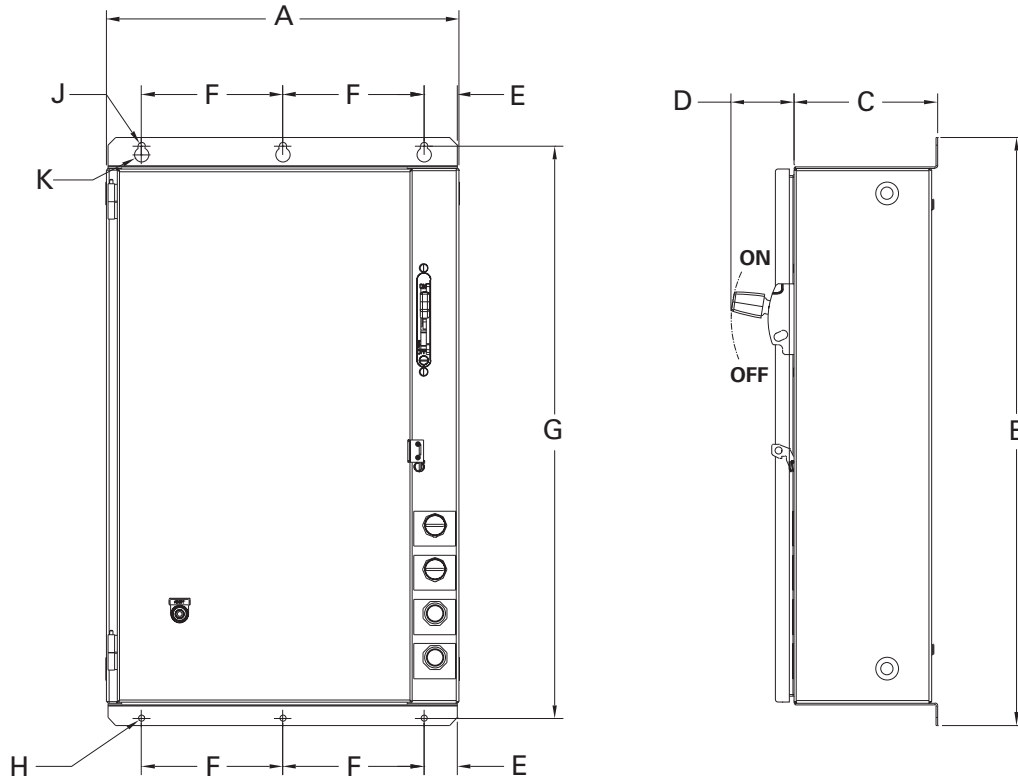
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR410, CR411, CR490 Magnetic Starters

Section 1

Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 200 Horsepower Maximum
 NEMA Sizes 0-4
 600 Volts Maximum 50/60 Hertz
 Outlines, Dimensions in. (mm)



NEMA Type 1 Enclosure

(Enclosure Code = 1)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367) | 8.14 (206.7) | 3.73 (94.6) | 3.39 (86.1) | 8.00 (203.2) | 52.94 (1344.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

NEMA Type 3R/12 Enclosure

(Enclosure Code = 6 or 2)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367.0) | 8.20 (208.2) | 3.50 (88.8) | 3.41 (86.6) | 8.00 (203.2) | 52.70 (1338.5) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

NEMA Type 4/4X Enclosure

(Enclosure Code = 4)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.76 (1365.5) | 8.14 (206.7) | 3.55 (90.2) | 3.41 (86.6) | 8.00 (203.2) | 52.64 (1336.9) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



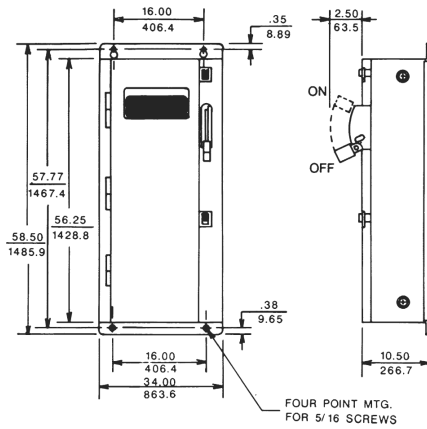
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR310, CR311, CR390 Magnetic Starters

Section 1

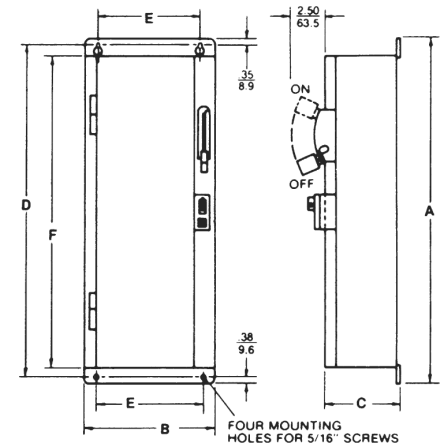
Reversing, Combination, NEMA Type 1, 3R, 12, 4/4X
 200 Horsepower Maximum
 NEMA Size 5
 600 Volts Maximum 50/60 Hertz
 Outlines, Dimensions in. (mm)



NEMA Type 1, CR310, CR311, CR390, Size 5

CR310, CR311 and CR390 NEMA Type 12 NEMA Size 5

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F |
|-----------|----------------|---------------|---------------|----------------|---------------|----------------|
| 5 | 58.50 (1485.9) | 34.00 (863.6) | 10.50 (266.7) | 57.77 (1467.4) | 16.00 (406.4) | 56.25 (1428.8) |



NEMA Type 12, CR310, CR311, CR390; Size 5



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR412, CR413, CR492 Magnetic Two-speed Controllers

2 Speed – 1 Winding, Combination, NEMA Type 1, 3R, 12, 4/4X

100 Horsepower Maximum

NEMA Sizes 0-4

600 Volts Maximum 50/60Hz

Application

Used for variable torque, constant torque, or constant horsepower full-voltage 2 speed – 1 winding motors up to 100 horsepower maximum, 600 Volts maximum. Consists of fusible or non-fusible disconnect or circuit breaker to provide disconnecting means and/or branch circuit protection, one 5-pole and one 3-pole contactors, and quantity 2 three-leg block overload relay.

Product Number Selection Instructions

- Specify starter by complete Product Number.
Example: CR413C1041A1AAAAA @ **\$1560.00, GO-10G1.**
- Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159, based on motor full-load current.
- For information on forms not listed or special features contact nearest GE Representative.
- Product Notes**
Motor full-load current should not exceed continuous ampere rating of starter.

CR412, CR413, CR492 Magnetic Two-speed Controllers – Contents

| | |
|--|-------|
| Application Information and Selection Instructions | 1-86 |
| Nonfusible Disconnect Type (CR413)..... | 1-87 |
| Fusible Disconnect Type (CR413)..... | 1-88 |
| Nonfusible and Fusible Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR413)..... | 1-89 |
| Thermal Magnetic Circuit Breaker Type (CR412) | 1-94 |
| Thermal Magnetic Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR412)..... | 1-95 |
| Mag-Break Circuit Breaker Type (CR492)..... | 1-99 |
| Mag-Break Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR492) | 1-100 |
| Outlines and Dimensions | 1-122 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR413 Magnetic Starters

2 Speed – 1 Winding, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Nonfusible Disconnect Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, one 5-pole and one 3-pole contactor with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR413 2 Speed – 1 Winding Nonfusible Disconnect Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 413B1081A1AAAAA | \$1488.00 | 413B6081A1AAAAA | \$1686.00 | 413B2081A1AAAAA | \$1686.00 | 413B4081A1AAAAA | \$2424.00 |
| 200-208 | 1 | 7 1/2 | 27 | 413C1081A1AAAAA | \$1560.00 | 413C6081A1AAAAA | \$1758.00 | 413C2081A1AAAAA | \$1758.00 | 413C4081A1AAAAA | \$2484.00 |
| 200-208 | 2 | 10 | 45 | 413D1081A1AAAAA | \$2532.00 | 413D6081A1AAAAA | \$2844.00 | 413D2081A1AAAAA | \$2844.00 | 413D4081A1AAAAA | \$3684.00 |
| 200-208 | 3 | 25 | 90 | 413E1081A1AAAAA | \$3648.00 | 413E6081A1AAAAA | \$4332.00 | 413E2081A1AAAAA | \$4332.00 | 413E4081A1AAAAA | \$5616.00 |
| 200-208 | 4 | 40 | 135 | 413F1081A1AAAAA | \$8568.00 | 413F6081A1AAAAA | \$10524.00 | 413F2081A1AAAAA | \$10524.00 | 413F4081A1AAAAA | \$11664.00 |
| 230-240 | 0 | 3 | 18 | 413B1031A1AAAAA | \$1488.00 | 413B6031A1AAAAA | \$1686.00 | 413B2031A1AAAAA | \$1686.00 | 413B4031A1AAAAA | \$2424.00 |
| 230-240 | 1 | 7 1/2 | 27 | 413C1031A1AAAAA | \$1560.00 | 413C6031A1AAAAA | \$1758.00 | 413C2031A1AAAAA | \$1758.00 | 413C4031A1AAAAA | \$2484.00 |
| 230-240 | 2 | 15 | 45 | 413D1031A1AAAAA | \$2532.00 | 413D6031A1AAAAA | \$2844.00 | 413D2031A1AAAAA | \$2844.00 | 413D4031A1AAAAA | \$3684.00 |
| 230-240 | 3 | 30 | 90 | 413E1031A1AAAAA | \$3648.00 | 413E6031A1AAAAA | \$4332.00 | 413E2031A1AAAAA | \$4332.00 | 413E4031A1AAAAA | \$5616.00 |
| 230-240 | 4 | 50 | 135 | 413F1031A1AAAAA | \$8568.00 | 413F6031A1AAAAA | \$10524.00 | 413F2031A1AAAAA | \$10524.00 | 413F4031A1AAAAA | \$11664.00 |
| 460-480 | 0 | 5 | 18 | 413B1041A1AAAAA | \$1488.00 | 413B6041A1AAAAA | \$1686.00 | 413B2041A1AAAAA | \$1686.00 | 413B4041A1AAAAA | \$2424.00 |
| 460-480 | 1 | 10 | 27 | 413C1041A1AAAAA | \$1560.00 | 413C6041A1AAAAA | \$1758.00 | 413C2041A1AAAAA | \$1758.00 | 413C4041A1AAAAA | \$2484.00 |
| 460-480 | 2 | 25 | 45 | 413D1041A1AAAAA | \$2532.00 | 413D6041A1AAAAA | \$2844.00 | 413D2041A1AAAAA | \$2844.00 | 413D4041A1AAAAA | \$3684.00 |
| 460-480 | 3 | 50 | 90 | 413E1041A1AAAAA | \$3648.00 | 413E6041A1AAAAA | \$4332.00 | 413E2041A1AAAAA | \$4332.00 | 413E4041A1AAAAA | \$5616.00 |
| 460-480 | 4 | 100 | 135 | 413F1041A1AAAAA | \$8568.00 | 413F6041A1AAAAA | \$10524.00 | 413F2041A1AAAAA | \$10524.00 | 413F4041A1AAAAA | \$11664.00 |
| 575-600 | 0 | 5 | 18 | 413B1051A1AAAAA | \$1488.00 | 413B6051A1AAAAA | \$1686.00 | 413B2051A1AAAAA | \$1686.00 | 413B4051A1AAAAA | \$2424.00 |
| 575-600 | 1 | 10 | 27 | 413C1051A1AAAAA | \$1560.00 | 413C6051A1AAAAA | \$1758.00 | 413C2051A1AAAAA | \$1758.00 | 413C4051A1AAAAA | \$2484.00 |
| 575-600 | 2 | 25 | 45 | 413D1051A1AAAAA | \$2532.00 | 413D6051A1AAAAA | \$2844.00 | 413D2051A1AAAAA | \$2844.00 | 413D4051A1AAAAA | \$3684.00 |
| 575-600 | 3 | 50 | 90 | 413E1051A1AAAAA | \$3648.00 | 413E6051A1AAAAA | \$4332.00 | 413E2051A1AAAAA | \$4332.00 | 413E4051A1AAAAA | \$5616.00 |
| 575-600 | 4 | 100 | 135 | 413F1051A1AAAAA | \$8568.00 | 413F6051A1AAAAA | \$10524.00 | 413F2051A1AAAAA | \$10524.00 | 413F4051A1AAAAA | \$11664.00 |

- NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR413B1051A1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR413B1021A1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR413 Magnetic Starters

2 Speed – 1 Winding, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Fusible Disconnect Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, one 5-pole and one 3-pole contactor with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. List price \$9.00 each, GO-10H.

CR413 2 Speed – 1 Winding Fusible Disconnect – Class H Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 413B108HA1AAAA | \$1584.00 | 413B608HA1AAAA | \$1782.00 | 413B208HA1AAAA | \$1782.00 | 413B408HA1AAAA | \$2520.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 413C108HB1AAAA | \$1656.00 | 413C608HB1AAAA | \$1854.00 | 413C208HB1AAAA | \$1854.00 | 413C408HB1AAAA | \$2580.00 |
| 200-208 | 2 | 10 | 45 | 100 | 413D108HC1AAAA | \$2706.00 | 413D608HC1AAAA | \$3018.00 | 413D208HC1AAAA | \$3018.00 | 413D408HC1AAAA | \$3858.00 |
| 200-208 | 3 | 25 | 90 | 200 | 413E108HD1AAAA | \$3960.00 | 413E608HD1AAAA | \$4644.00 | 413E208HD1AAAA | \$4644.00 | 413E408HD1AAAA | \$5928.00 |
| 200-208 | 4 | 40 | 135 | 400 | 413F108HE1AAAA | \$9108.00 | 413F608HE1AAAA | \$11064.00 | 413F208HE1AAAA | \$11064.00 | 413F408HE1AAAA | \$12204.00 |
| 230-240 | 0 | 3 | 18 | 30 | 413B103HA1AAAA | \$1584.00 | 413B603HA1AAAA | \$1782.00 | 413B203HA1AAAA | \$1782.00 | 413B403HA1AAAA | \$2520.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 413C103HB1AAAA | \$1656.00 | 413C603HB1AAAA | \$1854.00 | 413C203HB1AAAA | \$1854.00 | 413C403HB1AAAA | \$2580.00 |
| 230-240 | 2 | 15 | 45 | 100 | 413D103HC1AAAA | \$2706.00 | 413D603HC1AAAA | \$3018.00 | 413D203HC1AAAA | \$3018.00 | 413D403HC1AAAA | \$3858.00 |
| 230-240 | 3 | 30 | 90 | 200 | 413E103HD1AAAA | \$3960.00 | 413E603HD1AAAA | \$4644.00 | 413E203HD1AAAA | \$4644.00 | 413E403HD1AAAA | \$5928.00 |
| 230-240 | 4 | 50 | 135 | 400 | 413F103HE1AAAA | \$9108.00 | 413F603HE1AAAA | \$11064.00 | 413F203HE1AAAA | \$11064.00 | 413F403HE1AAAA | \$12204.00 |
| 460-480 | 0 | 5 | 18 | 30 | 413B104H31AAAA | \$1584.00 | 413B604H31AAAA | \$1782.00 | 413B204H31AAAA | \$1782.00 | 413B404H31AAAA | \$2520.00 |
| 460-480 | 1 | 7 1/2 | 27 | 30 | 413C104H61AAAA | \$1656.00 | 413C604H61AAAA | \$1854.00 | 413C204H61AAAA | \$1854.00 | 413C404H61AAAA | \$2580.00 |
| 460-480 | 1 | 10 | 27 | 60 | 413C104H61AAAA | \$1656.00 | 413C604H61AAAA | \$1854.00 | 413C204H61AAAA | \$1854.00 | 413C404H61AAAA | \$2580.00 |
| 460-480 | 2 | 15 | 45 | 60 | 413D104H61AAAA | \$2580.00 | 413D604H61AAAA | \$2892.00 | 413D204H61AAAA | \$2892.00 | 413D404H61AAAA | \$3732.00 |
| 460-480 | 2 | 25 | 45 | 100 | 413D104H11AAAA | \$2706.00 | 413D604H11AAAA | \$3018.00 | 413D204H11AAAA | \$3018.00 | 413D404H11AAAA | \$3858.00 |
| 460-480 | 3 | 30 | 90 | 100 | 413E104H11AAAA | \$3720.00 | 413E604H11AAAA | \$4404.00 | 413E204H11AAAA | \$4404.00 | 413E404H11AAAA | \$5688.00 |
| 460-480 | 3 | 50 | 90 | 200 | 413E104H21AAAA | \$3960.00 | 413E604H21AAAA | \$4644.00 | 413E204H21AAAA | \$4644.00 | 413E404H21AAAA | \$5928.00 |
| 460-480 | 4 | 60 | 135 | 200 | 413F104H21AAAA | \$8784.00 | 413F604H21AAAA | \$10740.00 | 413F204H21AAAA | \$10740.00 | 413F404H21AAAA | \$11880.00 |
| 460-480 | 4 | 100 | 135 | 400 | 413F104H41AAAA | \$8784.00 | 413F604H41AAAA | \$10740.00 | 413F204H41AAAA | \$10740.00 | 413F404H41AAAA | \$11880.00 |
| 575-600 | 0 | 5 | 18 | 30 | 413B105H31AAAA | \$1584.00 | 413B605H31AAAA | \$1782.00 | 413B205H31AAAA | \$1782.00 | 413B405H31AAAA | \$2520.00 |
| 575-600 | 1 | 10 | 27 | 30 | 413C105H31AAAA | \$1656.00 | 413C605H31AAAA | \$1854.00 | 413C205H31AAAA | \$1854.00 | 413C405H31AAAA | \$2580.00 |
| 575-600 | 2 | 20 | 45 | 60 | 413D105H61AAAA | \$2580.00 | 413D605H61AAAA | \$2892.00 | 413D205H61AAAA | \$2892.00 | 413D405H61AAAA | \$3732.00 |
| 575-600 | 2 | 25 | 45 | 100 | 413D105H11AAAA | \$2706.00 | 413D605H11AAAA | \$3018.00 | 413D205H11AAAA | \$3018.00 | 413D405H11AAAA | \$3858.00 |
| 575-600 | 3 | 30 | 90 | 100 | 413E105H11AAAA | \$3720.00 | 413E605H11AAAA | \$4404.00 | 413E205H11AAAA | \$4404.00 | 413E405H11AAAA | \$5688.00 |
| 575-600 | 3 | 50 | 90 | 200 | 413E105H21AAAA | \$3960.00 | 413E605H21AAAA | \$4644.00 | 413E205H21AAAA | \$4644.00 | 413E405H21AAAA | \$5928.00 |
| 575-600 | 4 | 60 | 135 | 200 | 413F105H21AAAA | \$8784.00 | 413F605H21AAAA | \$10740.00 | 413F205H21AAAA | \$10740.00 | 413F405H21AAAA | \$11880.00 |
| 575-600 | 4 | 100 | 135 | 400 | 413F105H41AAAA | \$8784.00 | 413F605H41AAAA | \$10740.00 | 413F205H41AAAA | \$10740.00 | 413F405H41AAAA | \$11880.00 |

CR413 2 Speed – 1 Winding Fusible Disconnect – Class R Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 413B108RA1AAAA | \$1593.00 | 413B608RA1AAAA | \$1791.00 | 413B208RA1AAAA | \$1791.00 | 413B408RA1AAAA | \$2529.00 |
| 200-208 | 1 | 5 | 27 | 30 | 413C108RA1AAAA | \$1665.00 | 413C608RA1AAAA | \$1863.00 | 413C208RA1AAAA | \$1863.00 | 413C408RA1AAAA | \$2589.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 413C108RB1AAAA | \$1665.00 | 413C608RB1AAAA | \$1863.00 | 413C208RB1AAAA | \$1863.00 | 413C408RB1AAAA | \$2589.00 |
| 200-208 | 2 | 10 | 45 | 60 | 413D108RB1AAAA | \$2589.00 | 413D608RB1AAAA | \$2901.00 | 413D208RB1AAAA | \$2901.00 | 413D408RB1AAAA | \$3741.00 |
| 200-208 | 3 | 20 | 90 | 100 | 413E108RC1AAAA | \$3738.00 | 413E608RC1AAAA | \$4422.00 | 413E208RC1AAAA | \$4422.00 | 413E408RC1AAAA | \$5706.00 |
| 200-208 | 3 | 25 | 90 | 200 | 413E108RD1AAAA | \$3978.00 | 413E608RD1AAAA | \$4662.00 | 413E208RD1AAAA | \$4662.00 | 413E408RD1AAAA | \$5946.00 |
| 200-208 | 4 | 40 | 135 | 200 | 413F108RD1AAAA | \$8802.00 | 413F608RD1AAAA | \$10758.00 | 413F208RD1AAAA | \$10758.00 | 413F408RD1AAAA | \$11898.00 |
| 230-240 | 0 | 3 | 18 | 30 | 413B103RA1AAAA | \$1593.00 | 413B603RA1AAAA | \$1791.00 | 413B203RA1AAAA | \$1791.00 | 413B403RA1AAAA | \$2529.00 |
| 230-240 | 1 | 5 | 27 | 30 | 413C103RA1AAAA | \$1665.00 | 413C603RA1AAAA | \$1863.00 | 413C203RA1AAAA | \$1863.00 | 413C403RA1AAAA | \$2589.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 413C103RB1AAAA | \$1665.00 | 413C603RB1AAAA | \$1863.00 | 413C203RB1AAAA | \$1863.00 | 413C403RB1AAAA | \$2589.00 |
| 230-240 | 2 | 15 | 45 | 60 | 413D103RB1AAAA | \$2589.00 | 413D603RB1AAAA | \$2901.00 | 413D203RB1AAAA | \$2901.00 | 413D403RB1AAAA | \$3741.00 |
| 230-240 | 3 | 25 | 90 | 100 | 413E103RC1AAAA | \$3738.00 | 413E603RC1AAAA | \$4422.00 | 413E203RC1AAAA | \$4422.00 | 413E403RC1AAAA | \$5706.00 |
| 230-240 | 3 | 30 | 90 | 200 | 413E103RD1AAAA | \$3978.00 | 413E603RD1AAAA | \$4662.00 | 413E203RD1AAAA | \$4662.00 | 413E403RD1AAAA | \$5946.00 |
| 230-240 | 4 | 50 | 135 | 200 | 413F103RD1AAAA | \$8802.00 | 413F603RD1AAAA | \$10758.00 | 413F203RD1AAAA | \$10758.00 | 413F403RD1AAAA | \$11898.00 |
| 460-480 | 0 | 5 | 18 | 30 | 413B104R31AAAA | \$1593.00 | 413B604R31AAAA | \$1791.00 | 413B204R31AAAA | \$1791.00 | 413B404R31AAAA | \$2529.00 |
| 460-480 | 1 | 10 | 27 | 30 | 413C104R31AAAA | \$1665.00 | 413C604R31AAAA | \$1863.00 | 413C204R31AAAA | \$1863.00 | 413C404R31AAAA | \$2589.00 |
| 460-480 | 2 | 25 | 45 | 60 | 413D104R61AAAA | \$2589.00 | 413D604R61AAAA | \$2901.00 | 413D204R61AAAA | \$2901.00 | 413D404R61AAAA | \$3741.00 |
| 460-480 | 3 | 50 | 90 | 100 | 413E104R11AAAA | \$3738.00 | 413E604R11AAAA | \$4422.00 | 413E204R11AAAA | \$4422.00 | 413E404R11AAAA | \$5706.00 |
| 460-480 | 4 | 100 | 135 | 200 | 413F104R21AAAA | \$8802.00 | 413F604R21AAAA | \$10758.00 | 413F204R21AAAA | \$10758.00 | 413F404R21AAAA | \$11898.00 |
| 575-600 | 0 | 5 | 18 | 30 | 413B105R31AAAA | \$1593.00 | 413B605R31AAAA | \$1791.00 | 413B205R31AAAA | \$1791.00 | 413B405R31AAAA | \$2529.00 |
| 575-600 | 1 | 10 | 27 | 30 | 413C105R31AAAA | \$1665.00 | 413C605R31AAAA | \$1863.00 | 413C205R31AAAA | \$1863.00 | 413C405R31AAAA | \$2589.00 |
| 575-600 | 2 | 15 | 45 | 30 | 413D105R31AAAA | \$2589.00 | 413D605R31AAAA | \$2901.00 | 413D205R31AAAA | \$2901.00 | 413D405R31AAAA | \$3741.00 |
| 575-600 | 2 | 25 | 45 | 60 | 413D105R61AAAA | \$2589.00 | 413D605R61AAAA | \$2901.00 | 413D205R61AAAA | \$2901.00 | 413D405R61AAAA | \$3741.00 |
| 575-600 | 3 | 30 | 90 | 60 | 413E105R61AAAA | \$3714.00 | 413E605R61AAAA | \$4398.00 | 413E205R61AAAA | \$4398.00 | 413E405R61AAAA | \$5682.00 |
| 575-600 | 3 | 50 | 90 | 100 | 413E105R11AAAA | \$3738.00 | 413E605R11AAAA | \$4422.00 | 413E205R11AAAA | \$4422.00 | 413E405R11AAAA | \$5706.00 |
| 575-600 | 4 | 60 | 135 | 100 | 413F105R11AAAA | \$8658.00 | 413F605R11AAAA | \$10614.00 | 413F205R11AAAA | \$10614.00 | 413F405R11AAAA | \$11754.00 |
| 575-600 | 4 | 100 | 135 | 200 | 413F105R21AAAA | \$8802.00 | 413F605R21AAAA | \$10758.00 | 413F205R21AAAA | \$10758.00 | 413F405R21AAAA | \$11898.00 |

• NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.

Example: CR413D104H61AAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR413D102H61AAAA Product Number.

- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.
- Fuses not included.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR413 Magnetic Starters

2 Speed – 1 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|--------|---|--|--------|--------|--|--|--|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
| Steps: | | | Step 1 | Step 2 | | | | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 | | | |

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 413B1 | \$1488.00 | 413B6 | \$1686.00 | 413B2 | \$1686.00 | 413B4 | \$2424.00 |
| 1 | 413C1 | \$1560.00 | 413C6 | \$1758.00 | 413C2 | \$1758.00 | 413C4 | \$2484.00 |
| 2 | 413D1 | \$2532.00 | 413D6 | \$2844.00 | 413D2 | \$2844.00 | 413D4 | \$3684.00 |
| 3 | 413E1 | \$3648.00 | 413E6 | \$4332.00 | 413E2 | \$4332.00 | 413E4 | \$5616.00 |
| 4 | 413F1 | \$8568.00 | 413F6 | \$10524.00 | 413F2 | \$10524.00 | 413F4 | \$11664.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR413 Magnetic Starters

Section 1

2 Speed - 1 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Disconnect without Fuse Clips

| NEMA Size | Code | List Price GO-10G1 |
|-----------|------|-----------------------|
| All | 1A | \$0.00 |

Disconnect with Class H Fuse Clips - For use with Non-Time Delay/Single Element Class H Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | HA | \$96.00 | 3 | 30 | HA | \$96.00 | 5 | 30 | H3 | \$96.00 | 5 | 30 | H3 | \$96.00 |
| 1 | 7 1/2 | 60 | HB | \$96.00 | 7 1/2 | 60 | HB | \$96.00 | 7 1/2 | 30 | H3 | \$96.00 | 10 | 30 | H3 | \$96.00 |
| | | | | | | | | | 10 | 60 | H6 | \$96.00 | | 60 | H6 | \$96.00 |
| 2 | 10 | 100 | HC | \$174.00 | 15 | 100 | HC | \$174.00 | 15 | 60 | H6 | \$48.00 | 20 | 60 | H6 | \$48.00 |
| | | | | | | | | | 25 | 100 | H1 | \$174.00 | 25 | 100 | H1 | \$174.00 |
| 3 | 25 | 200 | HD | \$312.00 | 30 | 200 | HD | \$312.00 | 30 | 100 | H1 | \$72.00 | 30 | 100 | H1 | \$72.00 |
| | | | | | | | | | 50 | 200 | H2 | \$312.00 | 50 | 200 | H2 | \$312.00 |
| 4 | 40 | 400 | HE | \$540.00 | 50 | 400 | HE | \$540.00 | 60 | 200 | H2 | \$216.00 | 60 | 200 | H2 | \$216.00 |
| | | | | | | | | | 100 | 400 | H4 | \$216.00 | 100 | 400 | H4 | \$216.00 |

Disconnect with Class R Fuse Clips - For use with Time Delay/Dual Element Class RK1/RK5 Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | RA | \$105.00 | 3 | 30 | RA | \$105.00 | 5 | 30 | R3 | \$105.00 | 5 | 30 | R3 | \$105.00 |
| 1 | 5 | 30 | RA | \$105.00 | 5 | 30 | RA | \$105.00 | 10 | 30 | R3 | \$105.00 | 10 | 30 | R3 | \$105.00 |
| | 7 1/2 | 60 | RB | \$105.00 | 7 1/2 | 60 | RB | \$105.00 | | | | | | | | |
| 2 | | | | | | | | | 30 | 30 | R3 | \$57.00 | 15 | 30 | R3 | \$57.00 |
| | 10 | 60 | RB | \$57.00 | 15 | 60 | RB | \$57.00 | 25 | 60 | R6 | \$57.00 | 25 | 60 | R6 | \$57.00 |
| | | | | | | | | | 60 | 60 | R6 | \$66.00 | 30 | 60 | R6 | \$66.00 |
| 3 | 20 | 100 | RC | \$90.00 | 25 | 100 | RC | \$90.00 | 50 | 100 | R1 | \$90.00 | 50 | 100 | R1 | \$90.00 |
| | 25 | 200 | RD | \$330.00 | 30 | 200 | RD | \$330.00 | | | | | | | | |
| 4 | | | | | | | | | 100 | 100 | R1 | \$90.00 | 60 | 100 | R1 | \$90.00 |
| | 40 | 200 | RD | \$234.00 | 50 | 200 | RD | \$234.00 | 100 | 200 | R2 | \$234.00 | 100 | 200 | R2 | \$234.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR413 Magnetic Starters

2 Speed - 1 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 3 (Digits 10, 11) Select Protective Device (continued)

Disconnect with Class J Fuse Clips - For use with Time Delay/Dual Element Class J Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|----------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | J3 | \$114.00 | 3 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 |
| 1 | 5 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 | 10 | 30 | J3 | \$114.00 | 10 | 30 | J3 | \$114.00 |
| | 7 1/2 | 60 | J6 | \$114.00 | 7 1/2 | 60 | J6 | \$114.00 | | | | | | | | |
| 2 | | | | | | | | | 30 | J3 | \$78.00 | | 15 | 30 | J3 | \$78.00 |
| | 10 | 60 | J6 | \$78.00 | 15 | 60 | J6 | \$78.00 | 25 | 60 | J6 | \$78.00 | 25 | 60 | J6 | \$78.00 |
| | | | | | | | | | 60 | J6 | \$120.00 | | 30 | 60 | J6 | \$120.00 |
| 3 | 20 | 100 | J1 | \$144.00 | 25 | 100 | J1 | \$144.00 | 50 | 100 | J1 | \$144.00 | 50 | 100 | J1 | \$144.00 |
| | 25 | 200 | J2 | \$384.00 | 30 | 200 | J2 | \$384.00 | | | | | | | | |
| 4 | | | | | | | | | 100 | J1 | \$192.00 | | 60 | 100 | J1 | \$192.00 |
| | 40 | 200 | J2 | \$336.00 | 50 | 200 | J2 | \$336.00 | 100 | 200 | J2 | \$336.00 | 100 | 200 | J2 | \$336.00 |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contact) | Code | List Price GO-10G1 |
|----------------------------|----------------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed - 1 winding sizes 0-1.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR413 Magnetic Starters

Section 1

2 Speed - 1 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | P ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|--------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|---------------------------------------|--|------|--------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR413 Magnetic Starters

2 Speed – 1 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR412 Magnetic Starters

2 Speed – 1 Winding, Combination, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Thermal Magnetic Circuit Breaker Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, one 5-pole and one 3-pole contactor with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR412 2 Speed – 1 Winding Thermal Magnetic Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|--------------------|-----------------------|------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 2 | 18 | 15 | 412B108TC1AAAAA | \$1908.00 | 412B608TC1AAAAA | \$2106.00 | 412B208TC1AAAAA | \$2106.00 | 412B408TC1AAAAA | \$2844.00 |
| 200-208 | 0 | 3 | 18 | 20 | 412B108TD1AAAAA | \$1908.00 | 412B608TD1AAAAA | \$2106.00 | 412B208TD1AAAAA | \$2106.00 | 412B408TD1AAAAA | \$2844.00 |
| 200-208 | 1 | 5 | 27 | 30 | 412C108TF1AAAAA | \$1980.00 | 412C608TF1AAAAA | \$2178.00 | 412C208TF1AAAAA | \$2178.00 | 412C408TF1AAAAA | \$2904.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 412C108TG1AAAAA | \$2016.00 | 412C608TG1AAAAA | \$2214.00 | 412C208TG1AAAAA | \$2214.00 | 412C408TG1AAAAA | \$2940.00 |
| 200-208 | 2 | 10 | 45 | 50 | 412D108TH1AAAAA | \$2952.00 | 412D608TH1AAAAA | \$3294.00 | 412D208TH1AAAAA | \$3294.00 | 412D408TH1AAAAA | \$4134.00 |
| 200-208 | 3 | 15 | 90 | 80 | 412E108TL1AAAAA | \$3858.00 | 412E608TL1AAAAA | \$4542.00 | 412E208TL1AAAAA | \$4542.00 | 412E408TL1AAAAA | \$5826.00 |
| 200-208 | 3 | 20 | 90 | 100 | 412E108TN1AAAAA | \$3858.00 | 412E608TN1AAAAA | \$4542.00 | 412E208TN1AAAAA | \$4542.00 | 412E408TN1AAAAA | \$5826.00 |
| 200-208 | 3 | 25 | 90 | 125 | 412E108TQ1AAAAA | \$4488.00 | 412E608TQ1AAAAA | \$5172.00 | 412E208TQ1AAAAA | \$5172.00 | 412E408TQ1AAAAA | \$6456.00 |
| 200-208 | 4 | 30 | 135 | 150 | 412F108TR1AAAAA | \$9360.00 | 412F608TR1AAAAA | \$11268.00 | 412F208TR1AAAAA | \$11268.00 | 412F408TR1AAAAA | \$12408.00 |
| 200-208 | 4 | 40 | 135 | 200 | 412F108TT1AAAAA | \$9360.00 | 412F608TT1AAAAA | \$11268.00 | 412F208TT1AAAAA | \$11268.00 | 412F408TT1AAAAA | \$12408.00 |
| 230-240 | 0 | 3 | 18 | 15 | 412B103TC1AAAAA | \$1908.00 | 412B603TC1AAAAA | \$2106.00 | 412B203TC1AAAAA | \$2106.00 | 412B403TC1AAAAA | \$2844.00 |
| 230-240 | 1 | 5 | 27 | 25 | 412C103TE1AAAAA | \$1980.00 | 412C603TE1AAAAA | \$2178.00 | 412C203TE1AAAAA | \$2178.00 | 412C403TE1AAAAA | \$2904.00 |
| 230-240 | 1 | 7 1/2 | 27 | 40 | 412C103TG1AAAAA | \$2016.00 | 412C603TG1AAAAA | \$2214.00 | 412C203TG1AAAAA | \$2214.00 | 412C403TG1AAAAA | \$2940.00 |
| 230-240 | 2 | 10 | 45 | 50 | 412D103TH1AAAAA | \$2952.00 | 412D603TH1AAAAA | \$3294.00 | 412D203TH1AAAAA | \$3294.00 | 412D403TH1AAAAA | \$4134.00 |
| 230-240 | 2 | 15 | 45 | 70 | 412D103TK1AAAAA | \$3024.00 | 412D603TK1AAAAA | \$3366.00 | 412D203TK1AAAAA | \$3366.00 | 412D403TK1AAAAA | \$4206.00 |
| 230-240 | 3 | 20 | 90 | 90 | 412E103TM1AAAAA | \$3858.00 | 412E603TM1AAAAA | \$4542.00 | 412E203TM1AAAAA | \$4542.00 | 412E403TM1AAAAA | \$5826.00 |
| 230-240 | 3 | 25 | 90 | 110 | 412E103TP1AAAAA | \$3858.00 | 412E603TP1AAAAA | \$4542.00 | 412E203TP1AAAAA | \$4542.00 | 412E403TP1AAAAA | \$5826.00 |
| 230-240 | 3 | 30 | 90 | 125 | 412E103TQ1AAAAA | \$4488.00 | 412E603TQ1AAAAA | \$5172.00 | 412E203TQ1AAAAA | \$5172.00 | 412E403TQ1AAAAA | \$6456.00 |
| 230-240 | 4 | 40 | 135 | 175 | 412F103TS1AAAAA | \$9963.00 | 412F603TS1AAAAA | \$11871.00 | 412F203TS1AAAAA | \$11871.00 | 412F403TS1AAAAA | \$13011.00 |
| 230-240 | 4 | 50 | 135 | 200 | 412F103TT1AAAAA | \$9360.00 | 412F603TT1AAAAA | \$11268.00 | 412F203TT1AAAAA | \$11268.00 | 412F403TT1AAAAA | \$12408.00 |
| 460-480 | 0 | 5 | 18 | 15 | 412B104TC1AAAAA | \$1908.00 | 412B604TC1AAAAA | \$2106.00 | 412B204TC1AAAAA | \$2106.00 | 412B404TC1AAAAA | \$2844.00 |
| 460-480 | 1 | 7 1/2 | 27 | 20 | 412C104TD1AAAAA | \$1980.00 | 412C604TD1AAAAA | \$2178.00 | 412C204TD1AAAAA | \$2178.00 | 412C404TD1AAAAA | \$2904.00 |
| 460-480 | 1 | 10 | 27 | 25 | 412C104TE1AAAAA | \$1980.00 | 412C604TE1AAAAA | \$2178.00 | 412C204TE1AAAAA | \$2178.00 | 412C404TE1AAAAA | \$2904.00 |
| 460-480 | 2 | 15 | 45 | 40 | 412D104TG1AAAAA | \$2952.00 | 412D604TG1AAAAA | \$3294.00 | 412D204TG1AAAAA | \$3294.00 | 412D404TG1AAAAA | \$4134.00 |
| 460-480 | 2 | 20 | 45 | 50 | 412D104TH1AAAAA | \$2952.00 | 412D604TH1AAAAA | \$3294.00 | 412D204TH1AAAAA | \$3294.00 | 412D404TH1AAAAA | \$4134.00 |
| 460-480 | 2 | 25 | 45 | 60 | 412D104TJ1AAAAA | \$3024.00 | 412D604TJ1AAAAA | \$3366.00 | 412D204TJ1AAAAA | \$3366.00 | 412D404TJ1AAAAA | \$4206.00 |
| 460-480 | 3 | 30 | 90 | 60 | 412E104TJ1AAAAA | \$3858.00 | 412E604TJ1AAAAA | \$4542.00 | 412E204TJ1AAAAA | \$4542.00 | 412E404TJ1AAAAA | \$5826.00 |
| 460-480 | 3 | 40 | 90 | 80 | 412E104TL1AAAAA | \$3858.00 | 412E604TL1AAAAA | \$4542.00 | 412E204TL1AAAAA | \$4542.00 | 412E404TL1AAAAA | \$5826.00 |
| 460-480 | 3 | 50 | 90 | 100 | 412E104TN1AAAAA | \$3858.00 | 412E604TN1AAAAA | \$4542.00 | 412E204TN1AAAAA | \$4542.00 | 412E404TN1AAAAA | \$5826.00 |
| 460-480 | 4 | 60 | 135 | 125 | 412F104TQ1AAAAA | \$9360.00 | 412F604TQ1AAAAA | \$11268.00 | 412F204TQ1AAAAA | \$11268.00 | 412F404TQ1AAAAA | \$12408.00 |
| 460-480 | 4 | 75 | 135 | 150 | 412F104TR1AAAAA | \$9360.00 | 412F604TR1AAAAA | \$11268.00 | 412F204TR1AAAAA | \$11268.00 | 412F404TR1AAAAA | \$12408.00 |
| 460-480 | 4 | 100 | 135 | 200 | 412F104TT1AAAAA | \$9360.00 | 412F604TT1AAAAA | \$11268.00 | 412F204TT1AAAAA | \$11268.00 | 412F404TT1AAAAA | \$12408.00 |
| 575-600 | 0 | 5 | 18 | 15 | 412B105TC1AAAAA | \$1908.00 | 412B605TC1AAAAA | \$2106.00 | 412B205TC1AAAAA | \$2106.00 | 412B405TC1AAAAA | \$2844.00 |
| 575-600 | 1 | 7 1/2 | 27 | 15 | 412C105TC1AAAAA | \$1980.00 | 412C605TC1AAAAA | \$2178.00 | 412C205TC1AAAAA | \$2178.00 | 412C405TC1AAAAA | \$2904.00 |
| 575-600 | 1 | 10 | 27 | 20 | 412C105TD1AAAAA | \$1980.00 | 412C605TD1AAAAA | \$2178.00 | 412C205TD1AAAAA | \$2178.00 | 412C405TD1AAAAA | \$2904.00 |
| 575-600 | 2 | 15 | 45 | 30 | 412D105TF1AAAAA | \$2988.00 | 412D605TF1AAAAA | \$3330.00 | 412D205TF1AAAAA | \$3330.00 | 412D405TF1AAAAA | \$4170.00 |
| 575-600 | 2 | 20 | 45 | 40 | 412D105TG1AAAAA | \$2952.00 | 412D605TG1AAAAA | \$3294.00 | 412D205TG1AAAAA | \$3294.00 | 412D405TG1AAAAA | \$4134.00 |
| 575-600 | 2 | 25 | 45 | 50 | 412D105TH1AAAAA | \$2952.00 | 412D605TH1AAAAA | \$3294.00 | 412D205TH1AAAAA | \$3294.00 | 412D405TH1AAAAA | \$4134.00 |
| 575-600 | 3 | 30 | 90 | 50 | 412E105TH1AAAAA | \$4032.00 | 412E605TH1AAAAA | \$4716.00 | 412E205TH1AAAAA | \$4716.00 | 412E405TH1AAAAA | \$6000.00 |
| 575-600 | 3 | 40 | 90 | 70 | 412E105TK1AAAAA | \$3858.00 | 412E605TK1AAAAA | \$4542.00 | 412E205TK1AAAAA | \$4542.00 | 412E405TK1AAAAA | \$5826.00 |
| 575-600 | 3 | 50 | 90 | 80 | 412E105TL1AAAAA | \$3858.00 | 412E605TL1AAAAA | \$4542.00 | 412E205TL1AAAAA | \$4542.00 | 412E405TL1AAAAA | \$5826.00 |
| 575-600 | 4 | 60 | 135 | 100 | 412F105TN1AAAAA | \$9963.00 | 412F605TN1AAAAA | \$11871.00 | 412F205TN1AAAAA | \$11871.00 | 412F405TN1AAAAA | \$13011.00 |
| 575-600 | 4 | 75 | 135 | 125 | 412F105TQ1AAAAA | \$9360.00 | 412F605TQ1AAAAA | \$11268.00 | 412F205TQ1AAAAA | \$11268.00 | 412F405TQ1AAAAA | \$12408.00 |
| 575-600 | 4 | 100 | 135 | 150 | 412F105TR1AAAAA | \$9360.00 | 412F605TR1AAAAA | \$11268.00 | 412F205TR1AAAAA | \$11268.00 | 412F405TR1AAAAA | \$12408.00 |

- NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR412C105TD1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR412C102TD1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR412 Magnetic Starters

2 Speed – 1 Winding, Thermal Magnetic Circuit Breaker

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|--------|---|--|--------|--|--|--|--|--------|--|--|--------|--------|--------|--------|--------|--------|--------|
| C | R | | | | | | | | | | | | | | | | |
| Steps: | | | Step 1 | | | | | Step 2 | | | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 |

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 412B1 | \$1770.00 | 412B6 | \$1968.00 | 412B2 | \$1968.00 | 412B4 | \$2706.00 |
| 1 | 412C1 | \$1842.00 | 412C6 | \$2040.00 | 412C2 | \$2040.00 | 412C4 | \$2766.00 |
| 2 | 412D1 | \$2814.00 | 412D6 | \$3156.00 | 412D2 | \$3156.00 | 412D4 | \$3996.00 |
| 3 | 412E1 | \$3858.00 | 412E6 | \$4542.00 | 412E2 | \$4542.00 | 412E4 | \$5826.00 |
| 4 | 412F1 | \$9360.00 | 412F6 | \$11268.00 | 412F2 | \$11268.00 | 412F4 | \$12408.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR412 Magnetic Starters

Section 1

2 Speed - 1 Winding, Thermal Magnetic Circuit Breaker

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Thermal-Mag Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | | | | | | | | | | | | | |
|-----------|-----------|---------------------|----------|-----------------------|-----------|---------------------|----------|-----------------------|-----------|---------------------|----------|-----------------------|-----------|---------------------|----------|-----------------------|----------|----------|----------|----------|-----|----------|----------|--------|--------|-----|----------|--------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | | | | | | | | | | | | |
| 0 | 2 | 15 | TC | \$138.00 | 3 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | | | | | | | | | | | | |
| | 3 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | | | | | | | | | | | | |
| 1 | 15 | TC | \$138.00 | 15 | TC | \$138.00 | 15 | TC | \$138.00 | 7 1/2 | 15 | TC | \$138.00 | 7 1/2 | 15 | TC | \$138.00 | | | | | | | | | | | |
| | 20 | TD | \$138.00 | 20 | TD | \$138.00 | 20 | TD | \$138.00 | 10 | 20 | TD | \$138.00 | 10 | 20 | TD | \$138.00 | | | | | | | | | | | |
| | 25 | TE | \$138.00 | 5 | 25 | TE | \$138.00 | 10 | 25 | TE | \$138.00 | 10 | 25 | TE | \$138.00 | 25 | TE | \$138.00 | | | | | | | | | | |
| | 5 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | 30 | TF | \$138.00 | | | | | | | | | |
| | 7 1/2 | 40 | TG | \$174.00 | 7 1/2 | 40 | TG | \$174.00 | 40 | 40 | TG | \$174.00 | 40 | 40 | TG | \$174.00 | 40 | TG | \$174.00 | | | | | | | | | |
| 2 | 30 | TF | \$174.00 | 30 | 30 | TF | \$174.00 | 30 | 30 | TF | \$174.00 | 30 | 30 | TF | \$174.00 | 15 | 30 | TF | \$174.00 | | | | | | | | | |
| | 40 | TG | \$138.00 | 40 | 40 | TG | \$138.00 | 15 | 40 | TG | \$138.00 | 20 | 40 | TG | \$138.00 | 20 | 40 | TG | \$138.00 | | | | | | | | | |
| | 10 | 50 | TH | \$138.00 | 10 | 50 | TH | \$138.00 | 20 | 50 | TH | \$138.00 | 25 | 50 | TH | \$138.00 | 25 | 50 | TH | \$138.00 | | | | | | | | |
| | 60 | TJ | \$210.00 | 60 | 60 | TJ | \$210.00 | 25 | 60 | TJ | \$210.00 | 25 | 60 | TJ | \$210.00 | 60 | 60 | TJ | \$210.00 | 60 | TJ | \$210.00 | | | | | | |
| | 70 | TK | \$210.00 | 15 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | 70 | TK | \$210.00 | | | | | | |
| 3 | 50 | TH | \$174.00 | 50 | 50 | TH | \$174.00 | 50 | 50 | TH | \$174.00 | 30 | 50 | TH | \$174.00 | 30 | 50 | TH | \$174.00 | 30 | 50 | TH | \$174.00 | | | | | |
| | 60 | TJ | \$0.00 | 60 | 60 | TJ | \$0.00 | 30 | 60 | TJ | \$0.00 | 30 | 60 | TJ | \$0.00 | 60 | 60 | TJ | \$0.00 | 60 | TJ | \$0.00 | 60 | TJ | \$0.00 | | | |
| | 70 | TK | \$0.00 | 70 | 70 | TK | \$0.00 | 70 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | |
| | 15 | 80 | TL | \$0.00 | 80 | 80 | TL | \$0.00 | 40 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 |
| | 90 | TM | \$0.00 | 20 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | |
| | 20 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 50 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 |
| | 110 | TP | \$0.00 | 25 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | |
| 25 | 125 | TQ | \$630.00 | 30 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | |
| 4 | 100 | TN | \$603.00 | 100 | 100 | TN | \$603.00 | 100 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | |
| | 125 | TQ | \$0.00 | 125 | 125 | TQ | \$0.00 | 60 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | |
| | 30 | 150 | TR | \$0.00 | 150 | 150 | TR | \$0.00 | 75 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 |
| | 175 | TS | \$603.00 | 40 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | |
| | 40 | 200 | TT | \$0.00 | 50 | 200 | TT | \$0.00 | 100 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR412 Magnetic Starters

2 Speed – 1 Winding, Thermal Magnetic Circuit Breaker

Part Number Configuration

Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|---------------------------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed – 1 winding sizes 0-1.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | L ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | P ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR412 Magnetic Starters

Section 1

2 Speed - 1 Winding, Thermal Magnetic Circuit Breaker

Part Number Configuration

Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|-----------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| | Red & Amber Across Coils | S | \$360.00 |
| Push-To-Test Lights | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR492 Mag-Break Magnetic Starters

Section 1

2 Speed – 1 Winding, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 0-4, Mag-Break Circuit Breaker Type
 600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, one 5-pole and one 3-pole contactor with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR492 2 Speed – 1 Winding Mag-Break Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Continuous Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|-------------------------------|-----------------------|------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 1 | 18 | 7 | 492B108MB1AAAAA | \$1944.00 | 492B608MB1AAAAA | \$2142.00 | 492B208MB1AAAAA | \$2142.00 | 492B408MB1AAAAA | \$2880.00 |
| 200-208 | 0 | 3 | 18 | 15 | 492B108MC1AAAAA | \$1944.00 | 492B608MC1AAAAA | \$2142.00 | 492B208MC1AAAAA | \$2142.00 | 492B408MC1AAAAA | \$2880.00 |
| 200-208 | 1 | 5 | 27 | 25 | 492C108ME1AAAAA | \$2016.00 | 492C608ME1AAAAA | \$2214.00 | 492C208ME1AAAAA | \$2214.00 | 492C408ME1AAAAA | \$2940.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 492C108MG1AAAAA | \$2016.00 | 492C608MG1AAAAA | \$2214.00 | 492C208MG1AAAAA | \$2214.00 | 492C408MG1AAAAA | \$2940.00 |
| 200-208 | 2 | 10 | 45 | 50 | 492D108MH1AAAAA | \$2988.00 | 492D608MH1AAAAA | \$3330.00 | 492D208MH1AAAAA | \$3330.00 | 492D408MH1AAAAA | \$4170.00 |
| 200-208 | 3 | 15 | 90 | 70 | 492E108MK1AAAAA | \$3858.00 | 492E608MK1AAAAA | \$4542.00 | 492E208MK1AAAAA | \$4542.00 | 492E408MK1AAAAA | \$5826.00 |
| 200-208 | 3 | 20 | 90 | 80 | 492E108ML1AAAAA | \$3858.00 | 492E608ML1AAAAA | \$4542.00 | 492E208ML1AAAAA | \$4542.00 | 492E408ML1AAAAA | \$5826.00 |
| 200-208 | 3 | 25 | 90 | 100 | 492E108MN1AAAAA | \$3858.00 | 492E608MN1AAAAA | \$4542.00 | 492E208MN1AAAAA | \$4542.00 | 492E408MN1AAAAA | \$5826.00 |
| 200-208 | 4 | 30 | 135 | 125 | 492F108MQ1AAAAA | \$9360.00 | 492F608MQ1AAAAA | \$11268.00 | 492F208MQ1AAAAA | \$11268.00 | 492F408MQ1AAAAA | \$12408.00 |
| 200-208 | 4 | 40 | 135 | 150 | 492F108MR1AAAAA | \$9360.00 | 492F608MR1AAAAA | \$11268.00 | 492F208MR1AAAAA | \$11268.00 | 492F408MR1AAAAA | \$12408.00 |
| 230-240 | 0 | 1/2 | 18 | 3 | 492B103MA1AAAAA | \$1944.00 | 492B603MA1AAAAA | \$2142.00 | 492B203MA1AAAAA | \$2142.00 | 492B403MA1AAAAA | \$2880.00 |
| 230-240 | 0 | 1 | 18 | 7 | 492B103MB1AAAAA | \$1944.00 | 492B603MB1AAAAA | \$2142.00 | 492B203MB1AAAAA | \$2142.00 | 492B403MB1AAAAA | \$2880.00 |
| 230-240 | 0 | 3 | 18 | 15 | 492B103MC1AAAAA | \$1944.00 | 492B603MC1AAAAA | \$2142.00 | 492B203MC1AAAAA | \$2142.00 | 492B403MC1AAAAA | \$2880.00 |
| 230-240 | 1 | 5 | 27 | 25 | 492C103ME1AAAAA | \$2016.00 | 492C603ME1AAAAA | \$2214.00 | 492C203ME1AAAAA | \$2214.00 | 492C403ME1AAAAA | \$2940.00 |
| 230-240 | 1 | 7 1/2 | 27 | 30 | 492C103MF1AAAAA | \$2016.00 | 492C603MF1AAAAA | \$2214.00 | 492C203MF1AAAAA | \$2214.00 | 492C403MF1AAAAA | \$2940.00 |
| 230-240 | 2 | 10 | 45 | 40 | 492D103MG1AAAAA | \$2988.00 | 492D603MG1AAAAA | \$3330.00 | 492D203MG1AAAAA | \$3330.00 | 492D403MG1AAAAA | \$4170.00 |
| 230-240 | 2 | 15 | 45 | 60 | 492D103MJ1AAAAA | \$2988.00 | 492D603MJ1AAAAA | \$3330.00 | 492D203MJ1AAAAA | \$3330.00 | 492D403MJ1AAAAA | \$4170.00 |
| 230-240 | 3 | 20 | 90 | 70 | 492E103MK1AAAAA | \$3858.00 | 492E603MK1AAAAA | \$4542.00 | 492E203MK1AAAAA | \$4542.00 | 492E403MK1AAAAA | \$5826.00 |
| 230-240 | 3 | 25 | 90 | 90 | 492E103MM1AAAAA | \$3858.00 | 492E603MM1AAAAA | \$4542.00 | 492E203MM1AAAAA | \$4542.00 | 492E403MM1AAAAA | \$5826.00 |
| 230-240 | 3 | 30 | 90 | 100 | 492E103MN1AAAAA | \$3858.00 | 492E603MN1AAAAA | \$4542.00 | 492E203MN1AAAAA | \$4542.00 | 492E403MN1AAAAA | \$5826.00 |
| 230-240 | 4 | 40 | 135 | 150 | 492F103MR1AAAAA | \$9360.00 | 492F603MR1AAAAA | \$11268.00 | 492F203MR1AAAAA | \$11268.00 | 492F403MR1AAAAA | \$12408.00 |
| 230-240 | 4 | 50 | 135 | 175 | 492F103MS1AAAAA | \$9360.00 | 492F603MS1AAAAA | \$11268.00 | 492F203MS1AAAAA | \$11268.00 | 492F403MS1AAAAA | \$12408.00 |
| 460-480 | 0 | 1 | 18 | 3 | 492B104MA1AAAAA | \$1944.00 | 492B604MA1AAAAA | \$2142.00 | 492B204MA1AAAAA | \$2142.00 | 492B404MA1AAAAA | \$2880.00 |
| 460-480 | 0 | 3 | 18 | 7 | 492B104MB1AAAAA | \$1944.00 | 492B604MB1AAAAA | \$2142.00 | 492B204MB1AAAAA | \$2142.00 | 492B404MB1AAAAA | \$2880.00 |
| 460-480 | 0 | 5 | 18 | 15 | 492B104MC1AAAAA | \$1944.00 | 492B604MC1AAAAA | \$2142.00 | 492B204MC1AAAAA | \$2142.00 | 492B404MC1AAAAA | \$2880.00 |
| 460-480 | 1 | 7 1/2 | 27 | 15 | 492C104ME1AAAAA | \$2016.00 | 492C604ME1AAAAA | \$2214.00 | 492C204ME1AAAAA | \$2214.00 | 492C404ME1AAAAA | \$2940.00 |
| 460-480 | 1 | 10 | 27 | 20 | 492C104MD1AAAAA | \$2016.00 | 492C604MD1AAAAA | \$2214.00 | 492C204MD1AAAAA | \$2214.00 | 492C404MD1AAAAA | \$2940.00 |
| 460-480 | 2 | 15 | 45 | 30 | 492D104MF1AAAAA | \$2988.00 | 492D604MF1AAAAA | \$3330.00 | 492D204MF1AAAAA | \$3330.00 | 492D404MF1AAAAA | \$4170.00 |
| 460-480 | 2 | 20 | 45 | 40 | 492D104MG1AAAAA | \$2988.00 | 492D604MG1AAAAA | \$3330.00 | 492D204MG1AAAAA | \$3330.00 | 492D404MG1AAAAA | \$4170.00 |
| 460-480 | 2 | 25 | 45 | 50 | 492D104MH1AAAAA | \$2988.00 | 492D604MH1AAAAA | \$3330.00 | 492D204MH1AAAAA | \$3330.00 | 492D404MH1AAAAA | \$4170.00 |
| 460-480 | 3 | 30 | 90 | 50 | 492E104MH1AAAAA | \$3858.00 | 492E604MH1AAAAA | \$4542.00 | 492E204MH1AAAAA | \$4542.00 | 492E404MH1AAAAA | \$5826.00 |
| 460-480 | 3 | 40 | 90 | 70 | 492E104MK1AAAAA | \$3858.00 | 492E604MK1AAAAA | \$4542.00 | 492E204MK1AAAAA | \$4542.00 | 492E404MK1AAAAA | \$5826.00 |
| 460-480 | 3 | 50 | 90 | 90 | 492E104MM1AAAAA | \$3858.00 | 492E604MM1AAAAA | \$4542.00 | 492E204MM1AAAAA | \$4542.00 | 492E404MM1AAAAA | \$5826.00 |
| 460-480 | 4 | 60 | 135 | 100 | 492F104MN1AAAAA | \$9360.00 | 492F604MN1AAAAA | \$11268.00 | 492F204MN1AAAAA | \$11268.00 | 492F404MN1AAAAA | \$12408.00 |
| 460-480 | 4 | 75 | 135 | 125 | 492F104MQ1AAAAA | \$9360.00 | 492F604MQ1AAAAA | \$11268.00 | 492F204MQ1AAAAA | \$11268.00 | 492F404MQ1AAAAA | \$12408.00 |
| 460-480 | 4 | 100 | 135 | 175 | 492F104MS1AAAAA | \$9360.00 | 492F604MS1AAAAA | \$11268.00 | 492F204MS1AAAAA | \$11268.00 | 492F404MS1AAAAA | \$12408.00 |
| 575-600 | 0 | 1 | 18 | 3 | 492B105MA1AAAAA | \$1944.00 | 492B605MA1AAAAA | \$2142.00 | 492B205MA1AAAAA | \$2142.00 | 492B405MA1AAAAA | \$2880.00 |
| 575-600 | 0 | 3 | 18 | 7 | 492B105MB1AAAAA | \$1944.00 | 492B605MB1AAAAA | \$2142.00 | 492B205MB1AAAAA | \$2142.00 | 492B405MB1AAAAA | \$2880.00 |
| 575-600 | 0 | 5 | 18 | 15 | 492B105MC1AAAAA | \$1944.00 | 492B605MC1AAAAA | \$2142.00 | 492B205MC1AAAAA | \$2142.00 | 492B405MC1AAAAA | \$2880.00 |
| 575-600 | 1 | 10 | 27 | 15 | 492C105ME1AAAAA | \$2016.00 | 492C605ME1AAAAA | \$2214.00 | 492C205ME1AAAAA | \$2214.00 | 492C405ME1AAAAA | \$2940.00 |
| 575-600 | 2 | 15 | 45 | 25 | 492D105MF1AAAAA | \$2988.00 | 492D605MF1AAAAA | \$3330.00 | 492D205MF1AAAAA | \$3330.00 | 492D405MF1AAAAA | \$4170.00 |
| 575-600 | 2 | 20 | 45 | 30 | 492D105MG1AAAAA | \$2988.00 | 492D605MG1AAAAA | \$3330.00 | 492D205MG1AAAAA | \$3330.00 | 492D405MG1AAAAA | \$4170.00 |
| 575-600 | 2 | 25 | 45 | 40 | 492D105MH1AAAAA | \$2988.00 | 492D605MH1AAAAA | \$3330.00 | 492D205MH1AAAAA | \$3330.00 | 492D405MH1AAAAA | \$4170.00 |
| 575-600 | 3 | 30 | 90 | 40 | 492E105MK1AAAAA | \$3858.00 | 492E605MK1AAAAA | \$4542.00 | 492E205MK1AAAAA | \$4542.00 | 492E405MK1AAAAA | \$5826.00 |
| 575-600 | 3 | 40 | 90 | 60 | 492E105MJ1AAAAA | \$3858.00 | 492E605MJ1AAAAA | \$4542.00 | 492E205MJ1AAAAA | \$4542.00 | 492E405MJ1AAAAA | \$5826.00 |
| 575-600 | 3 | 50 | 90 | 70 | 492E105MM1AAAAA | \$3858.00 | 492E605MM1AAAAA | \$4542.00 | 492E205MM1AAAAA | \$4542.00 | 492E405MM1AAAAA | \$5826.00 |
| 575-600 | 4 | 60 | 135 | 80 | 492F105MN1AAAAA | \$9360.00 | 492F605MN1AAAAA | \$11268.00 | 492F205MN1AAAAA | \$11268.00 | 492F405MN1AAAAA | \$12408.00 |
| 575-600 | 4 | 75 | 135 | 100 | 492F105MQ1AAAAA | \$9360.00 | 492F605MQ1AAAAA | \$11268.00 | 492F205MQ1AAAAA | \$11268.00 | 492F405MQ1AAAAA | \$12408.00 |
| 575-600 | 4 | 100 | 135 | 150 | 492F105MS1AAAAA | \$9360.00 | 492F605MS1AAAAA | \$11268.00 | 492F205MS1AAAAA | \$11268.00 | 492F405MS1AAAAA | \$12408.00 |

- NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
 Example: CR492B103MC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR492B102MC1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR492 Mag-Break Magnetic Starters

2 Speed - 1 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 492B1 | \$1944.00 | 492B6 | \$2142.00 | 492B2 | \$2142.00 | 492B4 | \$2880.00 |
| 1 | 492C1 | \$2016.00 | 492C6 | \$2214.00 | 492C2 | \$2214.00 | 492C4 | \$2940.00 |
| 2 | 492D1 | \$2988.00 | 492D6 | \$3330.00 | 492D2 | \$3330.00 | 492D4 | \$4170.00 |
| 3 | 492E1 | \$3858.00 | 492E6 | \$4542.00 | 492E2 | \$4542.00 | 492E4 | \$5826.00 |
| 4 | 492F1 | \$9360.00 | 492F6 | \$11268.00 | 492F2 | \$11268.00 | 492F4 | \$12408.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR492 Mag-Break Magnetic Starters

2 Speed - 1 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| | Standard Size | NEMA Size | | | | | Standard Size | NEMA Size | | | | |
|-------------------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| Control Circuit Voltage & CPT | CPT + 100VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | CPT + 200VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Mag-Break Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|--------|--------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | | |
| 0 | | 3 | MA | \$0.00 | 1/2 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | | |
| | | 1 | 7 | MB | \$0.00 | 1 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | |
| | | 3 | 15 | MC | \$0.00 | 3 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | |
| 1 | | 15 | MC | \$0.00 | | 15 | MC | \$0.00 | 7 1/2 | 15 | MC | \$0.00 | 10 | 15 | MC | \$0.00 | | |
| | | 20 | MD | \$0.00 | | 20 | MD | \$0.00 | 10 | 20 | MD | \$0.00 | | 20 | MD | \$0.00 | | |
| | | 5 | 25 | ME | \$0.00 | 5 | 25 | ME | \$0.00 | | 25 | ME | \$0.00 | | 25 | ME | \$0.00 | |
| | | 7 1/2 | 30 | MF | \$0.00 | 7 1/2 | 30 | MF | \$0.00 | | 30 | MF | \$0.00 | | 30 | MF | \$0.00 | |
| 2 | | 7 1/2 | 40 | MG | \$0.00 | | 40 | MG | \$0.00 | | 40 | MG | \$0.00 | | 40 | MG | \$0.00 | |
| | | 25 | ME | \$0.00 | | 25 | ME | \$0.00 | | 25 | ME | \$0.00 | | 15 | 25 | ME | \$0.00 | |
| | | 30 | MF | \$0.00 | | 30 | MF | \$0.00 | 15 | 30 | MF | \$0.00 | | 20 | 30 | MF | \$0.00 | |
| | | 40 | MG | \$0.00 | 10 | 40 | MG | \$0.00 | 20 | 40 | MG | \$0.00 | | 25 | 40 | MG | \$0.00 | |
| | | 10 | 50 | MH | \$0.00 | | 50 | MH | \$0.00 | 25 | 50 | MH | \$0.00 | | 50 | MH | \$0.00 | |
| 3 | | 60 | MJ | \$0.00 | 15 | 60 | MJ | \$0.00 | | 60 | MJ | \$0.00 | | 60 | MJ | \$0.00 | | |
| | | 40 | MG | \$0.00 | | 40 | MG | \$0.00 | | 40 | MG | \$0.00 | 30 | 40 | MG | \$0.00 | | |
| | | 50 | MH | \$0.00 | | 50 | MH | \$0.00 | 30 | 50 | MH | \$0.00 | | 50 | MH | \$0.00 | | |
| | | 60 | MJ | \$0.00 | | 60 | MJ | \$0.00 | | 60 | MJ | \$0.00 | | 40 | 60 | MJ | \$0.00 | |
| | | 15 | 70 | MK | \$0.00 | 20 | 70 | MK | \$0.00 | 40 | 70 | MK | \$0.00 | | 50 | 70 | MK | \$0.00 |
| | | 20 | 80 | ML | \$0.00 | | 80 | ML | \$0.00 | | 80 | ML | \$0.00 | | 80 | ML | \$0.00 | |
| 4 | | 90 | MM | \$0.00 | 25 | 90 | MM | \$0.00 | 50 | 90 | MM | \$0.00 | | 90 | MM | \$0.00 | | |
| | | 25 | 100 | MN | \$0.00 | 30 | 100 | MN | \$0.00 | | 100 | MN | \$0.00 | | 100 | MN | \$0.00 | |
| | | 80 | ML | \$0.00 | | 80 | ML | \$0.00 | | 80 | ML | \$0.00 | | 60 | 80 | ML | \$0.00 | |
| | | 100 | MN | \$0.00 | | 100 | MN | \$0.00 | 60 | 100 | MN | \$0.00 | | 75 | 100 | MN | \$0.00 | |
| | | 30 | 125 | MQ | \$0.00 | | 125 | MQ | \$0.00 | 75 | 125 | MQ | \$0.00 | | 125 | MQ | \$0.00 | |
| | 40 | 150 | MR | \$0.00 | 40 | 150 | MR | \$0.00 | | 150 | MR | \$0.00 | | 100 | 150 | MR | \$0.00 | |
| | | 175 | MS | \$0.00 | 50 | 175 | MS | \$0.00 | 100 | 175 | MS | \$0.00 | | 175 | MS | \$0.00 | | |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR492 Mag-Break Magnetic Starters

2 Speed - 1 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|---------------------------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed - 1 winding sizes 0-1.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | P ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR492 Mag-Break Magnetic Starters

2 Speed - 1 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|-----------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

If selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) control circuit fusing, a control power transformer, or 24V/120V separate sourced control is required, regardless of protective device rating.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR414, CR415, CR494 Magnetic Two-speed Controllers

2 Speed – 2 Winding, Combination, NEMA Type 1, 3R, 12, 4/4X

100 Horsepower Maximum

NEMA Sizes 0-4

600 Volts Maximum 50/60Hz

Application

Used for full-voltage 2 speed – 2 winding motors up to 100 horsepower maximum, 600 Volts maximum. Consists of fusible or non-fusible disconnect or circuit breaker to provide disconnecting means and/or branch circuit protection, two 3-pole contactors, and quantity 2 three-leg block overload relay.

Product Number Selection Instructions

1. Specify starter by complete Product Number.
Example: CR415C1041A1AAAAA @ **\$1308.00, GO-10G1**.
2. Order heaters by complete Product Number from appropriate heater tables on pages 1-153 to 1-159, based on motor full-load current.
3. For information on forms not listed or special features contact nearest GE Representative.
4. **Product Notes**
Motor full-load current should not exceed continuous ampere rating of starter.

CR414, CR415, CR494 Magnetic Two-speed Controllers – Contents

| | |
|---|-------|
| Application Information and Selection Instructions..... | 1-104 |
| Nonfusible Disconnect Type (CR415)..... | 1-105 |
| Fusible Disconnect Type (CR415)..... | 1-106 |
| Nonfusible and Fusible Part Number Configuration | |
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| Thermal Magnetic Circuit Breaker Type (CR414)..... | 1-112 |
| Thermal Magnetic Part Number Configuration | |
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| Mag-Break Circuit Breaker Type (CR494)..... | 1-117 |
| Mag-Break Part Number Configuration | |
| Size 0-4, NEMA Type 1, 3R, 12, 4/4X (CR494) | 1-118 |
| Outlines and Dimensions | 1-122 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR415 Magnetic Starters

2 Speed – 2 Winding, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Nonfusible Disconnect Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, two 3-pole contactors with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR415 2 Speed – 2 Winding Nonfusible Disconnect Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-----------------------|-----------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 415B1081A1AAAAA | \$1224.00 | 415B6081A1AAAAA | \$1422.00 | 415B2081A1AAAAA | \$1422.00 | 415B4081A1AAAAA | \$2160.00 |
| 200-208 | 1 | 7 1/2 | 27 | 415C1081A1AAAAA | \$1308.00 | 415C6081A1AAAAA | \$1506.00 | 415C2081A1AAAAA | \$1506.00 | 415C4081A1AAAAA | \$2232.00 |
| 200-208 | 2 | 10 | 45 | 415D1081A1AAAAA | \$2052.00 | 415D6081A1AAAAA | \$2364.00 | 415D2081A1AAAAA | \$2364.00 | 415D4081A1AAAAA | \$3216.00 |
| 200-208 | 3 | 25 | 90 | 415E1081A1AAAAA | \$3000.00 | 415E6081A1AAAAA | \$3684.00 | 415E2081A1AAAAA | \$3684.00 | 415E4081A1AAAAA | \$4968.00 |
| 200-208 | 4 | 40 | 135 | 415F1081A1AAAAA | \$6384.00 | 415F6081A1AAAAA | \$8340.00 | 415F2081A1AAAAA | \$8340.00 | 415F4081A1AAAAA | \$9480.00 |
| 230-240 | 0 | 3 | 18 | 415B1031A1AAAAA | \$1224.00 | 415B6031A1AAAAA | \$1422.00 | 415B2031A1AAAAA | \$1422.00 | 415B4031A1AAAAA | \$2160.00 |
| 230-240 | 1 | 7 1/2 | 27 | 415C1031A1AAAAA | \$1308.00 | 415C6031A1AAAAA | \$1506.00 | 415C2031A1AAAAA | \$1506.00 | 415C4031A1AAAAA | \$2232.00 |
| 230-240 | 2 | 15 | 45 | 415D1031A1AAAAA | \$2052.00 | 415D6031A1AAAAA | \$2364.00 | 415D2031A1AAAAA | \$2364.00 | 415D4031A1AAAAA | \$3216.00 |
| 230-240 | 3 | 30 | 90 | 415E1031A1AAAAA | \$3000.00 | 415E6031A1AAAAA | \$3684.00 | 415E2031A1AAAAA | \$3684.00 | 415E4031A1AAAAA | \$4968.00 |
| 230-240 | 4 | 50 | 135 | 415F1031A1AAAAA | \$6384.00 | 415F6031A1AAAAA | \$8340.00 | 415F2031A1AAAAA | \$8340.00 | 415F4031A1AAAAA | \$9480.00 |
| 460-480 | 0 | 5 | 18 | 415B1041A1AAAAA | \$1224.00 | 415B6041A1AAAAA | \$1422.00 | 415B2041A1AAAAA | \$1422.00 | 415B4041A1AAAAA | \$2160.00 |
| 460-480 | 1 | 10 | 27 | 415C1041A1AAAAA | \$1308.00 | 415C6041A1AAAAA | \$1506.00 | 415C2041A1AAAAA | \$1506.00 | 415C4041A1AAAAA | \$2232.00 |
| 460-480 | 2 | 25 | 45 | 415D1041A1AAAAA | \$2052.00 | 415D6041A1AAAAA | \$2364.00 | 415D2041A1AAAAA | \$2364.00 | 415D4041A1AAAAA | \$3216.00 |
| 460-480 | 3 | 50 | 90 | 415E1041A1AAAAA | \$3000.00 | 415E6041A1AAAAA | \$3684.00 | 415E2041A1AAAAA | \$3684.00 | 415E4041A1AAAAA | \$4968.00 |
| 460-480 | 4 | 100 | 135 | 415F1041A1AAAAA | \$6384.00 | 415F6041A1AAAAA | \$8340.00 | 415F2041A1AAAAA | \$8340.00 | 415F4041A1AAAAA | \$9480.00 |
| 575-600 | 0 | 5 | 18 | 415B1051A1AAAAA | \$1224.00 | 415B6051A1AAAAA | \$1422.00 | 415B2051A1AAAAA | \$1422.00 | 415B4051A1AAAAA | \$2160.00 |
| 575-600 | 1 | 10 | 27 | 415C1051A1AAAAA | \$1308.00 | 415C6051A1AAAAA | \$1506.00 | 415C2051A1AAAAA | \$1506.00 | 415C4051A1AAAAA | \$2232.00 |
| 575-600 | 2 | 25 | 45 | 415D1051A1AAAAA | \$2052.00 | 415D6051A1AAAAA | \$2364.00 | 415D2051A1AAAAA | \$2364.00 | 415D4051A1AAAAA | \$3216.00 |
| 575-600 | 3 | 50 | 90 | 415E1051A1AAAAA | \$3000.00 | 415E6051A1AAAAA | \$3684.00 | 415E2051A1AAAAA | \$3684.00 | 415E4051A1AAAAA | \$4968.00 |
| 575-600 | 4 | 100 | 135 | 415F1051A1AAAAA | \$6384.00 | 415F6051A1AAAAA | \$8340.00 | 415F2051A1AAAAA | \$8340.00 | 415F4051A1AAAAA | \$9480.00 |

- NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR415B1041A1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR415B1021A1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR415 Magnetic Starters

2 Speed – 2 Winding, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Fusible Disconnect Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, two 3-pole contactors with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR415 2 Speed – 2 Winding Fusible Disconnect – Class H Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|--------------------|-----------------------|----------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 415B108HA1AAAA | \$1320.00 | 415B608HA1AAAA | \$1518.00 | 415B208HA1AAAA | \$1518.00 | 415B408HA1AAAA | \$2256.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 415C108HB1AAAA | \$1404.00 | 415C608HB1AAAA | \$1602.00 | 415C208HB1AAAA | \$1602.00 | 415C408HB1AAAA | \$2328.00 |
| 200-208 | 2 | 10 | 45 | 100 | 415D108HC1AAAA | \$2226.00 | 415D608HC1AAAA | \$2538.00 | 415D208HC1AAAA | \$2538.00 | 415D408HC1AAAA | \$3390.00 |
| 200-208 | 3 | 25 | 90 | 200 | 415E108HD1AAAA | \$3312.00 | 415E608HD1AAAA | \$3996.00 | 415E208HD1AAAA | \$3996.00 | 415E408HD1AAAA | \$5280.00 |
| 200-208 | 4 | 40 | 135 | 400 | 415F108HE1AAAA | \$6924.00 | 415F608HE1AAAA | \$8880.00 | 415F208HE1AAAA | \$8880.00 | 415F408HE1AAAA | \$10020.00 |
| 230-240 | 0 | 3 | 18 | 30 | 415B103HA1AAAA | \$1320.00 | 415B603HA1AAAA | \$1518.00 | 415B203HA1AAAA | \$1518.00 | 415B403HA1AAAA | \$2256.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 415C103HB1AAAA | \$1404.00 | 415C603HB1AAAA | \$1602.00 | 415C203HB1AAAA | \$1602.00 | 415C403HB1AAAA | \$2328.00 |
| 230-240 | 2 | 15 | 45 | 100 | 415D103HC1AAAA | \$2226.00 | 415D603HC1AAAA | \$2538.00 | 415D203HC1AAAA | \$2538.00 | 415D403HC1AAAA | \$3390.00 |
| 230-240 | 3 | 30 | 90 | 200 | 415E103HD1AAAA | \$3312.00 | 415E603HD1AAAA | \$3996.00 | 415E203HD1AAAA | \$3996.00 | 415E403HD1AAAA | \$5280.00 |
| 230-240 | 4 | 50 | 135 | 400 | 415F103HE1AAAA | \$6924.00 | 415F603HE1AAAA | \$8880.00 | 415F203HE1AAAA | \$8880.00 | 415F403HE1AAAA | \$10020.00 |
| 460-480 | 0 | 5 | 18 | 30 | 415B104H31AAAA | \$1320.00 | 415B604H31AAAA | \$1518.00 | 415B204H31AAAA | \$1518.00 | 415B404H31AAAA | \$2256.00 |
| 460-480 | 1 | 7 1/2 | 27 | 30 | 415C104H31AAAA | \$1404.00 | 415C604H31AAAA | \$1602.00 | 415C204H31AAAA | \$1602.00 | 415C404H31AAAA | \$2328.00 |
| 460-480 | 1 | 10 | 27 | 60 | 415C104H61AAAA | \$1404.00 | 415C604H61AAAA | \$1602.00 | 415C204H61AAAA | \$1602.00 | 415C404H61AAAA | \$2328.00 |
| 460-480 | 2 | 15 | 45 | 60 | 415D104H61AAAA | \$2100.00 | 415D604H61AAAA | \$2412.00 | 415D204H61AAAA | \$2412.00 | 415D404H61AAAA | \$3264.00 |
| 460-480 | 2 | 25 | 45 | 100 | 415D104H11AAAA | \$2226.00 | 415D604H11AAAA | \$2538.00 | 415D204H11AAAA | \$2538.00 | 415D404H11AAAA | \$3390.00 |
| 460-480 | 3 | 30 | 90 | 100 | 415E104H11AAAA | \$3072.00 | 415E604H11AAAA | \$3756.00 | 415E204H11AAAA | \$3756.00 | 415E404H11AAAA | \$5040.00 |
| 460-480 | 3 | 50 | 90 | 200 | 415E104H21AAAA | \$3312.00 | 415E604H21AAAA | \$3996.00 | 415E204H21AAAA | \$3996.00 | 415E404H21AAAA | \$5280.00 |
| 460-480 | 4 | 60 | 135 | 200 | 415F104H21AAAA | \$6600.00 | 415F604H21AAAA | \$8556.00 | 415F204H21AAAA | \$8556.00 | 415F404H21AAAA | \$9696.00 |
| 460-480 | 4 | 100 | 135 | 400 | 415F104H41AAAA | \$6600.00 | 415F604H41AAAA | \$8556.00 | 415F204H41AAAA | \$8556.00 | 415F404H41AAAA | \$9696.00 |
| 575-600 | 0 | 5 | 18 | 30 | 415B105H31AAAA | \$1320.00 | 415B605H31AAAA | \$1518.00 | 415B205H31AAAA | \$1518.00 | 415B405H31AAAA | \$2256.00 |
| 575-600 | 1 | 10 | 27 | 30 | 415C105H31AAAA | \$1404.00 | 415C605H31AAAA | \$1602.00 | 415C205H31AAAA | \$1602.00 | 415C405H31AAAA | \$2328.00 |
| 575-600 | 2 | 20 | 45 | 60 | 415D105H61AAAA | \$2100.00 | 415D605H61AAAA | \$2412.00 | 415D205H61AAAA | \$2412.00 | 415D405H61AAAA | \$3264.00 |
| 575-600 | 2 | 25 | 45 | 100 | 415D105H11AAAA | \$2226.00 | 415D605H11AAAA | \$2538.00 | 415D205H11AAAA | \$2538.00 | 415D405H11AAAA | \$3390.00 |
| 575-600 | 3 | 30 | 90 | 100 | 415E105H11AAAA | \$3072.00 | 415E605H11AAAA | \$3756.00 | 415E205H11AAAA | \$3756.00 | 415E405H11AAAA | \$5040.00 |
| 575-600 | 3 | 50 | 90 | 200 | 415E105H21AAAA | \$3312.00 | 415E605H21AAAA | \$3996.00 | 415E205H21AAAA | \$3996.00 | 415E405H21AAAA | \$5280.00 |
| 575-600 | 4 | 60 | 135 | 200 | 415F105H21AAAA | \$6600.00 | 415F605H21AAAA | \$8556.00 | 415F205H21AAAA | \$8556.00 | 415F405H21AAAA | \$9696.00 |
| 575-600 | 4 | 100 | 135 | 400 | 415F105H41AAAA | \$6600.00 | 415F605H41AAAA | \$8556.00 | 415F205H41AAAA | \$8556.00 | 415F405H41AAAA | \$9696.00 |

CR415 2 Speed – 2 Winding Fusible Disconnect – Class R Fuse Clips

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | Fuse Clip Amp Rating | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|--------------------|-----------------------|----------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 3 | 18 | 30 | 415B108RA1AAAA | \$1329.00 | 415B608RA1AAAA | \$1527.00 | 415B208RA1AAAA | \$1527.00 | 415B408RA1AAAA | \$2265.00 |
| 200-208 | 1 | 5 | 27 | 30 | 415C108RA1AAAA | \$1413.00 | 415C608RA1AAAA | \$1611.00 | 415C208RA1AAAA | \$1611.00 | 415C408RA1AAAA | \$2337.00 |
| 200-208 | 1 | 7 1/2 | 27 | 60 | 415C108RB1AAAA | \$1413.00 | 415C608RB1AAAA | \$1611.00 | 415C208RB1AAAA | \$1611.00 | 415C408RB1AAAA | \$2337.00 |
| 200-208 | 2 | 10 | 45 | 60 | 415D108RB1AAAA | \$2109.00 | 415D608RB1AAAA | \$2421.00 | 415D208RB1AAAA | \$2421.00 | 415D408RB1AAAA | \$3273.00 |
| 200-208 | 3 | 20 | 90 | 100 | 415E108RC1AAAA | \$3090.00 | 415E608RC1AAAA | \$3774.00 | 415E208RC1AAAA | \$3774.00 | 415E408RC1AAAA | \$5058.00 |
| 200-208 | 3 | 25 | 90 | 200 | 415E108RD1AAAA | \$3330.00 | 415E608RD1AAAA | \$4014.00 | 415E208RD1AAAA | \$4014.00 | 415E408RD1AAAA | \$5298.00 |
| 200-208 | 4 | 40 | 135 | 200 | 415F108RD1AAAA | \$6618.00 | 415F608RD1AAAA | \$8574.00 | 415F208RD1AAAA | \$8574.00 | 415F408RD1AAAA | \$9714.00 |
| 230-240 | 0 | 3 | 18 | 30 | 415B103RA1AAAA | \$1329.00 | 415B603RA1AAAA | \$1527.00 | 415B203RA1AAAA | \$1527.00 | 415B403RA1AAAA | \$2265.00 |
| 230-240 | 1 | 5 | 27 | 30 | 415C103RA1AAAA | \$1413.00 | 415C603RA1AAAA | \$1611.00 | 415C203RA1AAAA | \$1611.00 | 415C403RA1AAAA | \$2337.00 |
| 230-240 | 1 | 7 1/2 | 27 | 60 | 415C103RB1AAAA | \$1413.00 | 415C603RB1AAAA | \$1611.00 | 415C203RB1AAAA | \$1611.00 | 415C403RB1AAAA | \$2337.00 |
| 230-240 | 2 | 15 | 45 | 60 | 415D103RB1AAAA | \$2109.00 | 415D603RB1AAAA | \$2421.00 | 415D203RB1AAAA | \$2421.00 | 415D403RB1AAAA | \$3273.00 |
| 230-240 | 3 | 25 | 90 | 100 | 415E103RC1AAAA | \$3090.00 | 415E603RC1AAAA | \$3774.00 | 415E203RC1AAAA | \$3774.00 | 415E403RC1AAAA | \$5058.00 |
| 230-240 | 3 | 30 | 90 | 200 | 415E103RD1AAAA | \$3330.00 | 415E603RD1AAAA | \$4014.00 | 415E203RD1AAAA | \$4014.00 | 415E403RD1AAAA | \$5298.00 |
| 230-240 | 4 | 50 | 135 | 200 | 415F103RD1AAAA | \$6618.00 | 415F603RD1AAAA | \$8574.00 | 415F203RD1AAAA | \$8574.00 | 415F403RD1AAAA | \$9714.00 |
| 460-480 | 0 | 5 | 18 | 30 | 415B104R31AAAA | \$1329.00 | 415B604R31AAAA | \$1527.00 | 415B204R31AAAA | \$1527.00 | 415B404R31AAAA | \$2265.00 |
| 460-480 | 1 | 10 | 27 | 30 | 415C104R31AAAA | \$1413.00 | 415C604R31AAAA | \$1611.00 | 415C204R31AAAA | \$1611.00 | 415C404R31AAAA | \$2337.00 |
| 460-480 | 2 | 25 | 45 | 60 | 415D104R61AAAA | \$2109.00 | 415D604R61AAAA | \$2421.00 | 415D204R61AAAA | \$2421.00 | 415D404R61AAAA | \$3273.00 |
| 460-480 | 3 | 50 | 90 | 100 | 415E104R11AAAA | \$3090.00 | 415E604R11AAAA | \$3774.00 | 415E204R11AAAA | \$3774.00 | 415E404R11AAAA | \$5058.00 |
| 460-480 | 4 | 100 | 135 | 200 | 415F104R21AAAA | \$6618.00 | 415F604R21AAAA | \$8574.00 | 415F204R21AAAA | \$8574.00 | 415F404R21AAAA | \$9714.00 |
| 575-600 | 0 | 5 | 18 | 30 | 415B105R31AAAA | \$1329.00 | 415B605R31AAAA | \$1527.00 | 415B205R31AAAA | \$1527.00 | 415B405R31AAAA | \$2265.00 |
| 575-600 | 1 | 10 | 27 | 30 | 415C105R31AAAA | \$1413.00 | 415C605R31AAAA | \$1611.00 | 415C205R31AAAA | \$1611.00 | 415C405R31AAAA | \$2337.00 |
| 575-600 | 2 | 15 | 45 | 30 | 415D105R31AAAA | \$2109.00 | 415D605R31AAAA | \$2421.00 | 415D205R31AAAA | \$2421.00 | 415D405R31AAAA | \$3273.00 |
| 575-600 | 2 | 25 | 45 | 60 | 415D105R61AAAA | \$2109.00 | 415D605R61AAAA | \$2421.00 | 415D205R61AAAA | \$2421.00 | 415D405R61AAAA | \$3273.00 |
| 575-600 | 3 | 30 | 90 | 60 | 415E105R61AAAA | \$3066.00 | 415E605R61AAAA | \$3750.00 | 415E205R61AAAA | \$3750.00 | 415E405R61AAAA | \$5034.00 |
| 575-600 | 3 | 50 | 90 | 100 | 415E105R11AAAA | \$3090.00 | 415E605R11AAAA | \$3774.00 | 415E205R11AAAA | \$3774.00 | 415E405R11AAAA | \$5058.00 |
| 575-600 | 4 | 60 | 135 | 100 | 415F105R11AAAA | \$6474.00 | 415F605R11AAAA | \$8430.00 | 415F205R11AAAA | \$8430.00 | 415F405R11AAAA | \$9570.00 |
| 575-600 | 4 | 100 | 135 | 200 | 415F105R21AAAA | \$6618.00 | 415F605R21AAAA | \$8574.00 | 415F205R21AAAA | \$8574.00 | 415F405R21AAAA | \$9714.00 |

• NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02. Example: CR415D603RB1AAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR415D602RB1AAAA Product Number.

- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.
- Fuses not included.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR415 Magnetic Starters

2 Speed – 2 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|--------|---|--|--------|--------|--|--|--|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
| Steps: | | | Step 1 | Step 2 | | | | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 | | | |

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 415B1 | \$1224.00 | 415B6 | \$1422.00 | 415B2 | \$1422.00 | 415B4 | \$2160.00 |
| 1 | 415C1 | \$1308.00 | 415C6 | \$1506.00 | 415C2 | \$1506.00 | 415C4 | \$2232.00 |
| 2 | 415D1 | \$2052.00 | 415D6 | \$2364.00 | 415D2 | \$2364.00 | 415D4 | \$3216.00 |
| 3 | 415E1 | \$3000.00 | 415E6 | \$3684.00 | 415E2 | \$3684.00 | 415E4 | \$4968.00 |
| 4 | 415F1 | \$6384.00 | 415F6 | \$8340.00 | 415F2 | \$8340.00 | 415F4 | \$9480.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR415 Magnetic Starters

Section 1

2 Speed - 2 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| | Standard Size | NEMA Size | | | | | Standard Size | NEMA Size | | | | |
|-------------------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| Control Circuit Voltage & CPT | CPT + 100VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | CPT + 200VA | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 | List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | |
| 120V | - | | | | | | - | | | | | |
| 240V | - | | | | | | - | | | | | |
| 480V | - | | | | | | - | | | | | |
| 600V | - | | | | | | - | | | | | |
| 208V | - | | | | | | - | | | | | |
| 24V ¹ | - | | | | | | - | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Disconnect without Fuse Clips

| NEMA Size | Code | List Price GO-10G1 |
|-----------|------|--------------------|
| All | 1A | \$0.00 |

Disconnect with Class H Fuse Clips - For use with Non-Time Delay/Single Element Class H Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | HA | \$96.00 | 3 | 30 | HA | \$96.00 | 5 | 30 | H3 | \$96.00 | 5 | 30 | H3 | \$96.00 |
| 1 | 7 1/2 | 60 | HB | \$96.00 | 7 1/2 | 60 | HB | \$96.00 | 10 | 60 | H6 | \$96.00 | 10 | 60 | H6 | \$96.00 |
| 2 | 10 | 100 | HC | \$174.00 | 15 | 100 | HC | \$174.00 | 15 | 60 | H6 | \$48.00 | 20 | 60 | H6 | \$48.00 |
| 3 | 25 | 200 | HD | \$312.00 | 30 | 200 | HD | \$312.00 | 25 | 100 | H1 | \$174.00 | 25 | 100 | H1 | \$174.00 |
| 4 | 40 | 400 | HE | \$540.00 | 50 | 400 | HE | \$540.00 | 30 | 100 | H1 | \$72.00 | 30 | 100 | H1 | \$72.00 |
| | | | | | | | | | 50 | 200 | H2 | \$312.00 | 50 | 200 | H2 | \$312.00 |
| | | | | | | | | | 60 | 200 | H2 | \$216.00 | 60 | 200 | H2 | \$216.00 |
| | | | | | | | | | 100 | 400 | H4 | \$216.00 | 100 | 400 | H4 | \$216.00 |

Disconnect with Class R Fuse Clips - For use with Time Delay/Dual Element Class RK1/RK5 Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | RA | \$105.00 | 3 | 30 | RA | \$105.00 | 5 | 30 | R3 | \$105.00 | 5 | 30 | R3 | \$105.00 |
| 1 | 5 | 30 | RA | \$105.00 | 5 | 30 | RA | \$105.00 | 10 | 30 | R3 | \$105.00 | 10 | 30 | R3 | \$105.00 |
| | 7 1/2 | 60 | RB | \$105.00 | 7 1/2 | 60 | RB | \$105.00 | | | | | | | | |
| 2 | 10 | 60 | RB | \$57.00 | 15 | 60 | RB | \$57.00 | 30 | 30 | R3 | \$57.00 | 15 | 30 | R3 | \$57.00 |
| | | | | | | | | | 25 | 60 | R6 | \$57.00 | 25 | 60 | R6 | \$57.00 |
| 3 | 20 | 100 | RC | \$90.00 | 25 | 100 | RC | \$90.00 | 60 | 60 | R6 | \$66.00 | 30 | 60 | R6 | \$66.00 |
| | 25 | 200 | RD | \$330.00 | 30 | 200 | RD | \$330.00 | 50 | 100 | R1 | \$90.00 | 50 | 100 | R1 | \$90.00 |
| 4 | 40 | 200 | RD | \$234.00 | 50 | 200 | RD | \$234.00 | 100 | 100 | R1 | \$90.00 | 60 | 100 | R1 | \$90.00 |
| | | | | | | | | | 100 | 200 | R2 | \$234.00 | 100 | 200 | R2 | \$234.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR415 Magnetic Starters

Section 1

2 Speed – 2 Winding, Nonfusible and Fusible Disconnect Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 3 (Digits 10, 11) Select Protective Device (continued)

Disconnect with Class J Fuse Clips - For use with Time Delay/Dual Element Class J Fuses

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|----------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 | Max Hp | Fuse Clip (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | 30 | J3 | \$114.00 | 3 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 |
| 1 | 5 | 30 | J3 | \$114.00 | 5 | 30 | J3 | \$114.00 | 10 | 30 | J3 | \$114.00 | 10 | 30 | J3 | \$114.00 |
| | 7 1/2 | 60 | J6 | \$114.00 | 7 1/2 | 60 | J6 | \$114.00 | | | | | | | | |
| 2 | | | | | | | | | 30 | J3 | \$78.00 | | 15 | 30 | J3 | \$78.00 |
| | 10 | 60 | J6 | \$78.00 | 15 | 60 | J6 | \$78.00 | 25 | 60 | J6 | \$78.00 | 25 | 60 | J6 | \$78.00 |
| | | | | | | | | | 60 | J6 | \$120.00 | | 30 | 60 | J6 | \$120.00 |
| 3 | 20 | 100 | J1 | \$144.00 | 25 | 100 | J1 | \$144.00 | 50 | 100 | J1 | \$144.00 | 50 | 100 | J1 | \$144.00 |
| | 25 | 200 | J2 | \$384.00 | 30 | 200 | J2 | \$384.00 | | | | | | | | |
| 4 | | | | | | | | | 100 | J1 | \$192.00 | | 60 | 100 | J1 | \$192.00 |
| | 40 | 200 | J2 | \$336.00 | 50 | 200 | J2 | \$336.00 | 100 | 200 | J2 | \$336.00 | 100 | 200 | J2 | \$336.00 |

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|--------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|------------------------------|----------------|--------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed – 1 winding sizes 0-1.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR415 Magnetic Starters

Section 1

2 Speed – 2 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|--|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|--------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|---------------------------------------|--|------|--------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| | Red & Amber Across Coils | 2 | \$324.00 |
| LED Lights | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| | Red & Amber Across Coils | S | \$360.00 |
| Push-To-Test Lights | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR415 Magnetic Starters

2 Speed – 2 Winding, Nonfusible and Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR414 Magnetic Starters

2 Speed – 2 Winding, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Thermal Magnetic Circuit Breaker Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, two 3-pole contactors with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR414 2 Speed – 2 Winding Thermal Magnetic Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Maximum Horsepower | Continuous Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|----------------|-----------|--------------------|-----------------------|------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 2 | 18 | 15 | 414B108TC1AAAAA | \$1644.00 | 414B608TC1AAAAA | \$1842.00 | 414B208TC1AAAAA | \$1842.00 | 414B408TC1AAAAA | \$2580.00 |
| 200-208 | 0 | 3 | 18 | 20 | 414B108TD1AAAAA | \$1644.00 | 414B608TD1AAAAA | \$1842.00 | 414B208TD1AAAAA | \$1842.00 | 414B408TD1AAAAA | \$2580.00 |
| 200-208 | 1 | 5 | 27 | 30 | 414C108TF1AAAAA | \$1728.00 | 414C608TF1AAAAA | \$1926.00 | 414C208TF1AAAAA | \$1926.00 | 414C408TF1AAAAA | \$2652.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 414C108TG1AAAAA | \$1764.00 | 414C608TG1AAAAA | \$1962.00 | 414C208TG1AAAAA | \$1962.00 | 414C408TG1AAAAA | \$2688.00 |
| 200-208 | 2 | 10 | 45 | 50 | 414D108TH1AAAAA | \$2472.00 | 414D608TH1AAAAA | \$2814.00 | 414D208TH1AAAAA | \$2814.00 | 414D408TH1AAAAA | \$3666.00 |
| 200-208 | 3 | 15 | 90 | 80 | 414E108TL1AAAAA | \$3210.00 | 414E608TL1AAAAA | \$3894.00 | 414E208TL1AAAAA | \$3894.00 | 414E408TL1AAAAA | \$5178.00 |
| 200-208 | 3 | 20 | 90 | 100 | 414E108TN1AAAAA | \$3210.00 | 414E608TN1AAAAA | \$3894.00 | 414E208TN1AAAAA | \$3894.00 | 414E408TN1AAAAA | \$5178.00 |
| 200-208 | 3 | 25 | 90 | 125 | 414E108TQ1AAAAA | \$3840.00 | 414E608TQ1AAAAA | \$4524.00 | 414E208TQ1AAAAA | \$4524.00 | 414E408TQ1AAAAA | \$5808.00 |
| 200-208 | 4 | 30 | 135 | 150 | 414F108TR1AAAAA | \$7176.00 | 414F608TR1AAAAA | \$9084.00 | 414F208TR1AAAAA | \$9084.00 | 414F408TR1AAAAA | \$10224.00 |
| 200-208 | 4 | 40 | 135 | 200 | 414F108TT1AAAAA | \$7176.00 | 414F608TT1AAAAA | \$9084.00 | 414F208TT1AAAAA | \$9084.00 | 414F408TT1AAAAA | \$10224.00 |
| 230-240 | 0 | 3 | 18 | 15 | 414B103TC1AAAAA | \$1644.00 | 414B603TC1AAAAA | \$1842.00 | 414B203TC1AAAAA | \$1842.00 | 414B403TC1AAAAA | \$2580.00 |
| 230-240 | 1 | 5 | 27 | 25 | 414C103TE1AAAAA | \$1728.00 | 414C603TE1AAAAA | \$1926.00 | 414C203TE1AAAAA | \$1926.00 | 414C403TE1AAAAA | \$2652.00 |
| 230-240 | 1 | 7 1/2 | 27 | 40 | 414C103TG1AAAAA | \$1764.00 | 414C603TG1AAAAA | \$1962.00 | 414C203TG1AAAAA | \$1962.00 | 414C403TG1AAAAA | \$2688.00 |
| 230-240 | 2 | 10 | 45 | 50 | 414D103TH1AAAAA | \$2472.00 | 414D603TH1AAAAA | \$2814.00 | 414D203TH1AAAAA | \$2814.00 | 414D403TH1AAAAA | \$3666.00 |
| 230-240 | 2 | 15 | 45 | 70 | 414D103TK1AAAAA | \$2544.00 | 414D603TK1AAAAA | \$2886.00 | 414D203TK1AAAAA | \$2886.00 | 414D403TK1AAAAA | \$3738.00 |
| 230-240 | 3 | 20 | 90 | 90 | 414E103TM1AAAAA | \$3210.00 | 414E603TM1AAAAA | \$3894.00 | 414E203TM1AAAAA | \$3894.00 | 414E403TM1AAAAA | \$5178.00 |
| 230-240 | 3 | 25 | 90 | 110 | 414E103TP1AAAAA | \$3210.00 | 414E603TP1AAAAA | \$3894.00 | 414E203TP1AAAAA | \$3894.00 | 414E403TP1AAAAA | \$5178.00 |
| 230-240 | 3 | 30 | 90 | 125 | 414E103TQ1AAAAA | \$3840.00 | 414E603TQ1AAAAA | \$4524.00 | 414E203TQ1AAAAA | \$4524.00 | 414E403TQ1AAAAA | \$5808.00 |
| 230-240 | 4 | 40 | 135 | 175 | 414F103TS1AAAAA | \$7779.00 | 414F603TS1AAAAA | \$9687.00 | 414F203TS1AAAAA | \$9687.00 | 414F403TS1AAAAA | \$10827.00 |
| 230-240 | 4 | 50 | 135 | 200 | 414F103TT1AAAAA | \$7176.00 | 414F603TT1AAAAA | \$9084.00 | 414F203TT1AAAAA | \$9084.00 | 414F403TT1AAAAA | \$10224.00 |
| 460-480 | 0 | 5 | 18 | 15 | 414B104TC1AAAAA | \$1644.00 | 414B604TC1AAAAA | \$1842.00 | 414B204TC1AAAAA | \$1842.00 | 414B404TC1AAAAA | \$2580.00 |
| 460-480 | 1 | 7 1/2 | 27 | 20 | 414C104TD1AAAAA | \$1728.00 | 414C604TD1AAAAA | \$1926.00 | 414C204TD1AAAAA | \$1926.00 | 414C404TD1AAAAA | \$2652.00 |
| 460-480 | 1 | 10 | 27 | 25 | 414C104TE1AAAAA | \$1728.00 | 414C604TE1AAAAA | \$1926.00 | 414C204TE1AAAAA | \$1926.00 | 414C404TE1AAAAA | \$2652.00 |
| 460-480 | 2 | 15 | 45 | 40 | 414D104TG1AAAAA | \$2472.00 | 414D604TG1AAAAA | \$2814.00 | 414D204TG1AAAAA | \$2814.00 | 414D404TG1AAAAA | \$3666.00 |
| 460-480 | 2 | 20 | 45 | 50 | 414D104TH1AAAAA | \$2472.00 | 414D604TH1AAAAA | \$2814.00 | 414D204TH1AAAAA | \$2814.00 | 414D404TH1AAAAA | \$3666.00 |
| 460-480 | 2 | 25 | 45 | 60 | 414D104TJ1AAAAA | \$2544.00 | 414D604TJ1AAAAA | \$2886.00 | 414D204TJ1AAAAA | \$2886.00 | 414D404TJ1AAAAA | \$3738.00 |
| 460-480 | 3 | 30 | 90 | 60 | 414E104TJ1AAAAA | \$3210.00 | 414E604TJ1AAAAA | \$3894.00 | 414E204TJ1AAAAA | \$3894.00 | 414E404TJ1AAAAA | \$5178.00 |
| 460-480 | 3 | 40 | 90 | 80 | 414E104TL1AAAAA | \$3210.00 | 414E604TL1AAAAA | \$3894.00 | 414E204TL1AAAAA | \$3894.00 | 414E404TL1AAAAA | \$5178.00 |
| 460-480 | 3 | 50 | 90 | 100 | 414E104TN1AAAAA | \$3210.00 | 414E604TN1AAAAA | \$3894.00 | 414E204TN1AAAAA | \$3894.00 | 414E404TN1AAAAA | \$5178.00 |
| 460-480 | 4 | 60 | 135 | 125 | 414F104TQ1AAAAA | \$7176.00 | 414F604TQ1AAAAA | \$9084.00 | 414F204TQ1AAAAA | \$9084.00 | 414F404TQ1AAAAA | \$10224.00 |
| 460-480 | 4 | 75 | 135 | 150 | 414F104TR1AAAAA | \$7176.00 | 414F604TR1AAAAA | \$9084.00 | 414F204TR1AAAAA | \$9084.00 | 414F404TR1AAAAA | \$10224.00 |
| 460-480 | 4 | 100 | 135 | 200 | 414F104TT1AAAAA | \$7176.00 | 414F604TT1AAAAA | \$9084.00 | 414F204TT1AAAAA | \$9084.00 | 414F404TT1AAAAA | \$10224.00 |
| 575-600 | 0 | 5 | 18 | 15 | 414B105TC1AAAAA | \$1644.00 | 414B605TC1AAAAA | \$1842.00 | 414B205TC1AAAAA | \$1842.00 | 414B405TC1AAAAA | \$2580.00 |
| 575-600 | 1 | 7 1/2 | 27 | 15 | 414C105TC1AAAAA | \$1728.00 | 414C605TC1AAAAA | \$1926.00 | 414C205TC1AAAAA | \$1926.00 | 414C405TC1AAAAA | \$2652.00 |
| 575-600 | 1 | 10 | 27 | 20 | 414C105TD1AAAAA | \$1728.00 | 414C605TD1AAAAA | \$1926.00 | 414C205TD1AAAAA | \$1926.00 | 414C405TD1AAAAA | \$2652.00 |
| 575-600 | 2 | 15 | 45 | 30 | 414D105TF1AAAAA | \$2508.00 | 414D605TF1AAAAA | \$2850.00 | 414D205TF1AAAAA | \$2850.00 | 414D405TF1AAAAA | \$3702.00 |
| 575-600 | 2 | 20 | 45 | 40 | 414D105TG1AAAAA | \$2472.00 | 414D605TG1AAAAA | \$2814.00 | 414D205TG1AAAAA | \$2814.00 | 414D405TG1AAAAA | \$3666.00 |
| 575-600 | 2 | 25 | 45 | 50 | 414D105TH1AAAAA | \$2472.00 | 414D605TH1AAAAA | \$2814.00 | 414D205TH1AAAAA | \$2814.00 | 414D405TH1AAAAA | \$3666.00 |
| 575-600 | 3 | 30 | 90 | 50 | 414E105TH1AAAAA | \$3384.00 | 414E605TH1AAAAA | \$4068.00 | 414E205TH1AAAAA | \$4068.00 | 414E405TH1AAAAA | \$5352.00 |
| 575-600 | 3 | 40 | 90 | 70 | 414E105TK1AAAAA | \$3210.00 | 414E605TK1AAAAA | \$3894.00 | 414E205TK1AAAAA | \$3894.00 | 414E405TK1AAAAA | \$5178.00 |
| 575-600 | 3 | 50 | 90 | 80 | 414E105TL1AAAAA | \$3210.00 | 414E605TL1AAAAA | \$3894.00 | 414E205TL1AAAAA | \$3894.00 | 414E405TL1AAAAA | \$5178.00 |
| 575-600 | 4 | 60 | 135 | 100 | 414F105TN1AAAAA | \$7779.00 | 414F605TN1AAAAA | \$9687.00 | 414F205TN1AAAAA | \$9687.00 | 414F405TN1AAAAA | \$10827.00 |
| 575-600 | 4 | 75 | 135 | 125 | 414F105TQ1AAAAA | \$7176.00 | 414F605TQ1AAAAA | \$9084.00 | 414F205TQ1AAAAA | \$9084.00 | 414F405TQ1AAAAA | \$10224.00 |
| 575-600 | 4 | 100 | 135 | 150 | 414F105TR1AAAAA | \$7176.00 | 414F605TR1AAAAA | \$9084.00 | 414F205TR1AAAAA | \$9084.00 | 414F405TR1AAAAA | \$10224.00 |

- NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.
Example: CR414B204TC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR414B202TC1AAAAA Product Number.
- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR414 Magnetic Starters

2 Speed – 2 Winding, Thermal Magnetic Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | | |
|--------|---|--|--|--------|--------|--|--|--|--------|--------|--------|--------|--------|--------|--------|--|--|--|
| C | R | | | | | | | | | | | | | | | | | |
| Steps: | | | | Step 1 | Step 2 | | | | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 | | | |

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 414B1 | \$1506.00 | 414B6 | \$1704.00 | 414B2 | \$1704.00 | 414B4 | \$2442.00 |
| 1 | 414C1 | \$1590.00 | 414C6 | \$1788.00 | 414C2 | \$1788.00 | 414C4 | \$2514.00 |
| 2 | 414D1 | \$2334.00 | 414D6 | \$2676.00 | 414D2 | \$2676.00 | 414D4 | \$3528.00 |
| 3 | 414E1 | \$3210.00 | 414E6 | \$3894.00 | 414E2 | \$3894.00 | 414E4 | \$5178.00 |
| 4 | 414F1 | \$7176.00 | 414F6 | \$9084.00 | 414F2 | \$9084.00 | 414F4 | \$10224.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR414 Magnetic Starters

Section 1

2 Speed - 2 Winding, Thermal Magnetic Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| Control Circuit Voltage & CPT | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | | |
|-------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | | |
| 120V | - | | | | | | - | | | | | | |
| 240V | - | | | | | | - | | | | | | |
| 480V | - | | | | | | - | | | | | | |
| 600V | - | | | | | | - | | | | | | |
| 208V | - | | | | | | - | | | | | | |
| 24V ¹ | - | | | | | | - | | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - | |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Thermal-Mag Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | | | | | |
|-----------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|------------------|----------|--------------------|----------|----------|----------|----------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | | | | |
| 0 | 2 | 15 | TC | \$138.00 | 3 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | 5 | 15 | TC | \$138.00 | | | | |
| | 3 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | 20 | 20 | TD | \$138.00 | | | | |
| 1 | 15 | TC | \$138.00 | 15 | TC | \$138.00 | 15 | TC | \$138.00 | 7 1/2 | 15 | TC | \$138.00 | 7 1/2 | 15 | TC | \$138.00 | | | |
| | 20 | TD | \$138.00 | 20 | TD | \$138.00 | 20 | TD | \$138.00 | 7 1/2 | 20 | TD | \$138.00 | 10 | 20 | TD | \$138.00 | | | |
| | 25 | TE | \$138.00 | 5 | 25 | TE | \$138.00 | 10 | 25 | TE | \$138.00 | 25 | 25 | TE | \$138.00 | 25 | TE | \$138.00 | | |
| | 5 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | 30 | 30 | TF | \$138.00 | | | | |
| 2 | 7 1/2 | 40 | TG | \$174.00 | 7 1/2 | 40 | TG | \$174.00 | 40 | 40 | TG | \$174.00 | 40 | 40 | TG | \$174.00 | | | | |
| | 30 | TF | \$174.00 | 30 | 30 | TF | \$174.00 | 30 | 30 | TF | \$174.00 | 15 | 30 | TF | \$174.00 | | | | | |
| | 40 | TG | \$138.00 | 40 | TG | \$138.00 | 15 | 40 | TG | \$138.00 | 20 | 40 | TG | \$138.00 | 20 | 40 | TG | \$138.00 | | |
| | 10 | 50 | TH | \$138.00 | 10 | 50 | TH | \$138.00 | 20 | 50 | TH | \$138.00 | 25 | 50 | TH | \$138.00 | 25 | 50 | TH | \$138.00 |
| | 60 | TJ | \$210.00 | 60 | 60 | TJ | \$210.00 | 25 | 60 | TJ | \$210.00 | 60 | 60 | TJ | \$210.00 | 60 | 60 | TJ | \$210.00 | |
| | 70 | TK | \$210.00 | 15 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | 70 | 70 | TK | \$210.00 | |
| | 50 | TH | \$174.00 | 50 | 50 | TH | \$174.00 | 50 | 50 | TH | \$174.00 | 30 | 50 | TH | \$174.00 | 30 | 50 | TH | \$174.00 | |
| | 60 | TJ | \$0.00 | 60 | 60 | TJ | \$0.00 | 30 | 60 | TJ | \$0.00 | 60 | 60 | TJ | \$0.00 | 60 | 60 | TJ | \$0.00 | |
| 3 | 70 | TK | \$0.00 | 70 | 70 | TK | \$0.00 | 70 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | 40 | 70 | TK | \$0.00 | |
| | 15 | 80 | TL | \$0.00 | 80 | 80 | TL | \$0.00 | 40 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 | 50 | 80 | TL | \$0.00 |
| | 90 | TM | \$0.00 | 20 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | 90 | 90 | TM | \$0.00 | |
| | 20 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 50 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 | 100 | 100 | TN | \$0.00 |
| | 110 | TP | \$0.00 | 25 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | 110 | 110 | TP | \$0.00 | |
| 4 | 25 | 125 | TQ | \$630.00 | 30 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 | 125 | 125 | TQ | \$630.00 |
| | 100 | TN | \$603.00 | 100 | 100 | TN | \$603.00 | 100 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | 60 | 100 | TN | \$603.00 | |
| | 125 | TQ | \$0.00 | 125 | 125 | TQ | \$0.00 | 60 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | 75 | 125 | TQ | \$0.00 | |
| | 30 | 150 | TR | \$0.00 | 150 | 150 | TR | \$0.00 | 75 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 | 100 | 150 | TR | \$0.00 |
| | 175 | TS | \$603.00 | 40 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | 175 | 175 | TS | \$603.00 | |
| 40 | 200 | TT | \$0.00 | 50 | 200 | TT | \$0.00 | 100 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 | 200 | 200 | TT | \$0.00 | |



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR414 Magnetic Starters

2 Speed – 2 Winding, Thermal Magnetic Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|---------------------------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed – 1 winding sizes 0-1.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR414 Magnetic Starters

Section 1

2 Speed – 2 Winding, Thermal Magnetic Circuit Breaker Type
Part Number Configuration
Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|-----------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

On NEMA Size 3 & 4 starters, if selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) then control circuit fusing, a control power transformer, or 120V separate sourced control is required when the protective device is rated greater than 100 Amps.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR494 Mag-Break Magnetic Starters

2 Speed – 2 Winding, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 0-4, Mag-Break Circuit Breaker Type

600 Volts Maximum 60 Hertz

List Price includes a holding interlock, pressure terminals for the line and load connections, two 3-pole contactors with mechanical and cross electrical interlock on each contactor, plus two 3-leg block type overload relays (manual reset). All enclosures include external reset. Six heaters should be ordered as separate items. See pages 1-153 to 1-159 for selection. **List price \$9.00 each, GO-10H.**

CR494 2 Speed – 2 Winding Mag-Break Circuit Breaker Type

| Voltage (60Hz) | NEMA Size | Continuous Maximum Horsepower | Amp Rating | CB Rating (Amps) | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-------------------|--------------|-------------------------------------|---------------|------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | | | | | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 | Product Number CR | List Price GO-10G1 |
| 200-208 | 0 | 1 | 18 | 7 | 494B108MB1AAAAA | \$1680.00 | 494B608MB1AAAAA | \$1878.00 | 494B208MB1AAAAA | \$1878.00 | 494B408MB1AAAAA | \$2616.00 |
| 200-208 | 0 | 3 | 18 | 15 | 494B108MC1AAAAA | \$1680.00 | 494B608MC1AAAAA | \$1878.00 | 494B208MC1AAAAA | \$1878.00 | 494B408MC1AAAAA | \$2616.00 |
| 200-208 | 1 | 5 | 27 | 25 | 494C108ME1AAAAA | \$1764.00 | 494C608ME1AAAAA | \$1962.00 | 494C208ME1AAAAA | \$1962.00 | 494C408ME1AAAAA | \$2688.00 |
| 200-208 | 1 | 7 1/2 | 27 | 40 | 494C108MG1AAAAA | \$1764.00 | 494C608MG1AAAAA | \$1962.00 | 494C208MG1AAAAA | \$1962.00 | 494C408MG1AAAAA | \$2688.00 |
| 200-208 | 2 | 10 | 45 | 50 | 494D108MH1AAAAA | \$2508.00 | 494D608MH1AAAAA | \$2850.00 | 494D208MH1AAAAA | \$2850.00 | 494D408MH1AAAAA | \$3702.00 |
| 200-208 | 3 | 15 | 90 | 70 | 494E108MK1AAAAA | \$3210.00 | 494E608MK1AAAAA | \$3894.00 | 494E208MK1AAAAA | \$3894.00 | 494E408MK1AAAAA | \$5178.00 |
| 200-208 | 3 | 20 | 90 | 80 | 494E108ML1AAAAA | \$3210.00 | 494E608ML1AAAAA | \$3894.00 | 494E208ML1AAAAA | \$3894.00 | 494E408ML1AAAAA | \$5178.00 |
| 200-208 | 3 | 25 | 90 | 100 | 494E108MN1AAAAA | \$3210.00 | 494E608MN1AAAAA | \$3894.00 | 494E208MN1AAAAA | \$3894.00 | 494E408MN1AAAAA | \$5178.00 |
| 200-208 | 4 | 30 | 135 | 125 | 494F108MQ1AAAAA | \$7176.00 | 494F608MQ1AAAAA | \$9084.00 | 494F208MQ1AAAAA | \$9084.00 | 494F408MQ1AAAAA | \$10224.00 |
| 200-208 | 4 | 40 | 135 | 150 | 494F108MR1AAAAA | \$7176.00 | 494F608MR1AAAAA | \$9084.00 | 494F208MR1AAAAA | \$9084.00 | 494F408MR1AAAAA | \$10224.00 |
| 230-240 | 0 | 1/2 | 18 | 3 | 494B103MA1AAAAA | \$1680.00 | 494B603MA1AAAAA | \$1878.00 | 494B203MA1AAAAA | \$1878.00 | 494B403MA1AAAAA | \$2616.00 |
| 230-240 | 0 | 1 | 18 | 7 | 494B103MB1AAAAA | \$1680.00 | 494B603MB1AAAAA | \$1878.00 | 494B203MB1AAAAA | \$1878.00 | 494B403MB1AAAAA | \$2616.00 |
| 230-240 | 0 | 3 | 18 | 15 | 494B103MC1AAAAA | \$1680.00 | 494B603MC1AAAAA | \$1878.00 | 494B203MC1AAAAA | \$1878.00 | 494B403MC1AAAAA | \$2616.00 |
| 230-240 | 1 | 5 | 27 | 25 | 494C103ME1AAAAA | \$1764.00 | 494C603ME1AAAAA | \$1962.00 | 494C203ME1AAAAA | \$1962.00 | 494C403ME1AAAAA | \$2688.00 |
| 230-240 | 1 | 7 1/2 | 27 | 30 | 494C103MF1AAAAA | \$1764.00 | 494C603MF1AAAAA | \$1962.00 | 494C203MF1AAAAA | \$1962.00 | 494C403MF1AAAAA | \$2688.00 |
| 230-240 | 2 | 10 | 45 | 40 | 494D103MG1AAAAA | \$2508.00 | 494D603MG1AAAAA | \$2850.00 | 494D203MG1AAAAA | \$2850.00 | 494D403MG1AAAAA | \$3702.00 |
| 230-240 | 2 | 15 | 45 | 60 | 494D103MJ1AAAAA | \$2508.00 | 494D603MJ1AAAAA | \$2850.00 | 494D203MJ1AAAAA | \$2850.00 | 494D403MJ1AAAAA | \$3702.00 |
| 230-240 | 3 | 20 | 90 | 70 | 494E103MK1AAAAA | \$3210.00 | 494E603MK1AAAAA | \$3894.00 | 494E203MK1AAAAA | \$3894.00 | 494E403MK1AAAAA | \$5178.00 |
| 230-240 | 3 | 25 | 90 | 90 | 494E103MM1AAAAA | \$3210.00 | 494E603MM1AAAAA | \$3894.00 | 494E203MM1AAAAA | \$3894.00 | 494E403MM1AAAAA | \$5178.00 |
| 230-240 | 3 | 30 | 90 | 100 | 494E103MN1AAAAA | \$3210.00 | 494E603MN1AAAAA | \$3894.00 | 494E203MN1AAAAA | \$3894.00 | 494E403MN1AAAAA | \$5178.00 |
| 230-240 | 4 | 40 | 135 | 150 | 494F103MR1AAAAA | \$7176.00 | 494F603MR1AAAAA | \$9084.00 | 494F203MR1AAAAA | \$9084.00 | 494F403MR1AAAAA | \$10224.00 |
| 230-240 | 4 | 50 | 135 | 175 | 494F103MS1AAAAA | \$7176.00 | 494F603MS1AAAAA | \$9084.00 | 494F203MS1AAAAA | \$9084.00 | 494F403MS1AAAAA | \$10224.00 |
| 460-480 | 0 | 1 | 18 | 3 | 494B104MA1AAAAA | \$1680.00 | 494B604MA1AAAAA | \$1878.00 | 494B204MA1AAAAA | \$1878.00 | 494B404MA1AAAAA | \$2616.00 |
| 460-480 | 0 | 3 | 18 | 7 | 494B104MB1AAAAA | \$1680.00 | 494B604MB1AAAAA | \$1878.00 | 494B204MB1AAAAA | \$1878.00 | 494B404MB1AAAAA | \$2616.00 |
| 460-480 | 0 | 5 | 18 | 15 | 494B104MC1AAAAA | \$1680.00 | 494B604MC1AAAAA | \$1878.00 | 494B204MC1AAAAA | \$1878.00 | 494B404MC1AAAAA | \$2616.00 |
| 460-480 | 1 | 7 1/2 | 27 | 15 | 494C104ME1AAAAA | \$1764.00 | 494C604ME1AAAAA | \$1962.00 | 494C204ME1AAAAA | \$1962.00 | 494C404ME1AAAAA | \$2688.00 |
| 460-480 | 1 | 10 | 27 | 20 | 494C104MD1AAAAA | \$1764.00 | 494C604MD1AAAAA | \$1962.00 | 494C204MD1AAAAA | \$1962.00 | 494C404MD1AAAAA | \$2688.00 |
| 460-480 | 2 | 15 | 45 | 30 | 494D104MG1AAAAA | \$2508.00 | 494D604MG1AAAAA | \$2850.00 | 494D204MG1AAAAA | \$2850.00 | 494D404MG1AAAAA | \$3702.00 |
| 460-480 | 2 | 20 | 45 | 40 | 494D104MH1AAAAA | \$2508.00 | 494D604MH1AAAAA | \$2850.00 | 494D204MH1AAAAA | \$2850.00 | 494D404MH1AAAAA | \$3702.00 |
| 460-480 | 2 | 25 | 45 | 50 | 494D104MH1AAAAA | \$2508.00 | 494D604MH1AAAAA | \$2850.00 | 494D204MH1AAAAA | \$2850.00 | 494D404MH1AAAAA | \$3702.00 |
| 460-480 | 3 | 30 | 90 | 50 | 494E104MK1AAAAA | \$3210.00 | 494E604MK1AAAAA | \$3894.00 | 494E204MK1AAAAA | \$3894.00 | 494E404MK1AAAAA | \$5178.00 |
| 460-480 | 3 | 40 | 90 | 70 | 494E104MK1AAAAA | \$3210.00 | 494E604MK1AAAAA | \$3894.00 | 494E204MK1AAAAA | \$3894.00 | 494E404MK1AAAAA | \$5178.00 |
| 460-480 | 3 | 50 | 90 | 90 | 494E104MM1AAAAA | \$3210.00 | 494E604MM1AAAAA | \$3894.00 | 494E204MM1AAAAA | \$3894.00 | 494E404MM1AAAAA | \$5178.00 |
| 460-480 | 4 | 60 | 135 | 100 | 494F104MN1AAAAA | \$7176.00 | 494F604MN1AAAAA | \$9084.00 | 494F204MN1AAAAA | \$9084.00 | 494F404MN1AAAAA | \$10224.00 |
| 460-480 | 4 | 75 | 135 | 125 | 494F104MQ1AAAAA | \$7176.00 | 494F604MQ1AAAAA | \$9084.00 | 494F204MQ1AAAAA | \$9084.00 | 494F404MQ1AAAAA | \$10224.00 |
| 460-480 | 4 | 100 | 135 | 175 | 494F104MS1AAAAA | \$7176.00 | 494F604MS1AAAAA | \$9084.00 | 494F204MS1AAAAA | \$9084.00 | 494F404MS1AAAAA | \$10224.00 |
| 575-600 | 0 | 1 | 18 | 3 | 494B105MA1AAAAA | \$1680.00 | 494B605MA1AAAAA | \$1878.00 | 494B205MA1AAAAA | \$1878.00 | 494B405MA1AAAAA | \$2616.00 |
| 575-600 | 0 | 3 | 18 | 7 | 494B105MB1AAAAA | \$1680.00 | 494B605MB1AAAAA | \$1878.00 | 494B205MB1AAAAA | \$1878.00 | 494B405MB1AAAAA | \$2616.00 |
| 575-600 | 0 | 5 | 18 | 15 | 494B105MC1AAAAA | \$1680.00 | 494B605MC1AAAAA | \$1878.00 | 494B205MC1AAAAA | \$1878.00 | 494B405MC1AAAAA | \$2616.00 |
| 575-600 | 1 | 10 | 27 | 15 | 494C105ME1AAAAA | \$1764.00 | 494C605ME1AAAAA | \$1962.00 | 494C205ME1AAAAA | \$1962.00 | 494C405ME1AAAAA | \$2688.00 |
| 575-600 | 2 | 15 | 45 | 25 | 494D105MF1AAAAA | \$2508.00 | 494D605MF1AAAAA | \$2850.00 | 494D205MF1AAAAA | \$2850.00 | 494D405MF1AAAAA | \$3702.00 |
| 575-600 | 2 | 20 | 45 | 30 | 494D105MF1AAAAA | \$2508.00 | 494D605MF1AAAAA | \$2850.00 | 494D205MF1AAAAA | \$2850.00 | 494D405MF1AAAAA | \$3702.00 |
| 575-600 | 2 | 25 | 45 | 40 | 494D105MG1AAAAA | \$2508.00 | 494D605MG1AAAAA | \$2850.00 | 494D205MG1AAAAA | \$2850.00 | 494D405MG1AAAAA | \$3702.00 |
| 575-600 | 3 | 30 | 90 | 40 | 494E105MJ1AAAAA | \$3210.00 | 494E605MJ1AAAAA | \$3894.00 | 494E205MJ1AAAAA | \$3894.00 | 494E405MJ1AAAAA | \$5178.00 |
| 575-600 | 3 | 40 | 90 | 60 | 494E105MJ1AAAAA | \$3210.00 | 494E605MJ1AAAAA | \$3894.00 | 494E205MJ1AAAAA | \$3894.00 | 494E405MJ1AAAAA | \$5178.00 |
| 575-600 | 3 | 50 | 90 | 70 | 494E105MK1AAAAA | \$3210.00 | 494E605MK1AAAAA | \$3894.00 | 494E205MK1AAAAA | \$3894.00 | 494E405MK1AAAAA | \$5178.00 |
| 575-600 | 4 | 60 | 135 | 80 | 494F105ML1AAAAA | \$7176.00 | 494F605ML1AAAAA | \$9084.00 | 494F205ML1AAAAA | \$9084.00 | 494F405ML1AAAAA | \$10224.00 |
| 575-600 | 4 | 75 | 135 | 100 | 494F105MN1AAAAA | \$7176.00 | 494F605MN1AAAAA | \$9084.00 | 494F205MN1AAAAA | \$9084.00 | 494F405MN1AAAAA | \$10224.00 |
| 575-600 | 4 | 100 | 135 | 150 | 494F105MR1AAAAA | \$7176.00 | 494F605MR1AAAAA | \$9084.00 | 494F205MR1AAAAA | \$9084.00 | 494F405MR1AAAAA | \$10224.00 |

• NEMA Size 0-4 starters with 115-120 Volt, 60-Hertz coils for separate control are available at listed prices. To order, replace Digits 8 & 9 of listed Product Numbers with 02.

Example: CR494C105MC1AAAAA with 115-120 Volt, 60-Hertz coil for separate control becomes CR494C102MC1AAAAA Product Number.

- Motor full load current should not exceed continuous ampere rating of starter.
- For ordinary starting duty only.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR494 Mag-Break Magnetic Starters

2 Speed - 2 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

| | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-7) Select NEMA Size and Enclosure

| NEMA Size | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4 | |
|-----------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price | Standard Enclosure | List Price |
| | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 | CR | GO-10G1 |
| 0 | 494B1 | \$1680.00 | 494B6 | \$1878.00 | 494B2 | \$1878.00 | 494B4 | \$2616.00 |
| 1 | 494C1 | \$1764.00 | 494C6 | \$1962.00 | 494C2 | \$1962.00 | 494C4 | \$2688.00 |
| 2 | 494D1 | \$2508.00 | 494D6 | \$2850.00 | 494D2 | \$2850.00 | 494D4 | \$3702.00 |
| 3 | 494E1 | \$3210.00 | 494E6 | \$3894.00 | 494E2 | \$3894.00 | 494E4 | \$5178.00 |
| 4 | 494F1 | \$7176.00 | 494F6 | \$9084.00 | 494F2 | \$9084.00 | 494F4 | \$10224.00 |

Note: All enclosures include external overload reset buttons. NEMA 4 enclosures are stainless steel.

Step 2 (Digits 8, 9) Select Control Voltage (No CPT and Standard Size CPT)

| Control Circuit Voltage & CPT | No CPT | List Price GO-10G1 | Control Fuses, No CPT | List Price GO-10G1 | Standard Size CPT | NEMA Size | | | | |
|-------------------------------|--------|--------------------|-----------------------|--------------------|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | | | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 |
| 120V w/ Surge Protector (SP) | 01 | \$54.00 | F1 | \$132.00 | - | | | | | |
| 120V | 02 | \$0.00 | F2 | \$132.00 | - | | | | | |
| 240V | 03 | \$0.00 | F3 | \$132.00 | - | | | | | |
| 480V | 04 | \$0.00 | F4 | \$132.00 | - | | | | | |
| 600V | 05 | \$0.00 | F5 | \$132.00 | - | | | | | |
| 208V | 08 | \$0.00 | F8 | \$132.00 | - | | | | | |
| 24V ¹ | 09 | \$0.00 | - | - | - | | | | | |
| 240V/120V w/CPT | - | - | - | - | 93 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 480V/120V w/CPT | - | - | - | - | 94 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 600V/120V w/CPT | - | - | - | - | 95 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 208V/120V w/CPT | - | - | - | - | 98 | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 |
| 240V/120V w/CPT & SP | - | - | - | - | 33 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 480V/120V w/CPT & SP | - | - | - | - | 34 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 600V/120V w/CPT & SP | - | - | - | - | 35 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 208V/120V w/CPT & SP | - | - | - | - | 38 | \$348.00 | \$348.00 | \$406.00 | \$522.00 | \$594.00 |
| 240V/24V w/CPT ¹ | - | - | - | - | S3 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 480V/24V w/CPT ¹ | - | - | - | - | S4 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 600V/24V w/CPT ¹ | - | - | - | - | S5 | \$294.00 | \$294.00 | \$352.00 | - | - |
| 208V/24V w/CPT ¹ | - | - | - | - | S8 | \$294.00 | \$294.00 | \$352.00 | - | - |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR494 Mag-Break Magnetic Starters

2 Speed – 2 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 2 (Digits 8, 9) Select Control Voltage (Extra Capacity CPT + 100VA and 200VA)

| | Standard Size CPT + 100VA | NEMA Size | | | | | Standard Size CPT + 200VA | NEMA Size | | | | | |
|------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|
| | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | | 0 List Price GO-10G1 | 1 List Price GO-10G1 | 2 List Price GO-10G1 | 3 List Price GO-10G1 | 4 List Price GO-10G1 | |
| 120V w/ Surge Protector (SP) | - | | | | | | - | | | | | | |
| 120V | - | | | | | | - | | | | | | |
| 240V | - | | | | | | - | | | | | | |
| 480V | - | | | | | | - | | | | | | |
| 600V | - | | | | | | - | | | | | | |
| 208V | - | | | | | | - | | | | | | |
| 24V ¹ | - | | | | | | - | | | | | | |
| 240V/120V w/CPT | 13 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 23 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 480V/120V w/CPT | 14 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 24 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 600V/120V w/CPT | 15 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 25 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 208V/120V w/CPT | 18 | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | 28 | \$523.00 | \$523.00 | \$618.00 | \$714.00 | \$775.00 | |
| 240V/120V w/CPT & SP | 53 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 63 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 480V/120V w/CPT & SP | 54 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 64 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 600V/120V w/CPT & SP | 55 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 65 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 208V/120V w/CPT & SP | 58 | \$474.00 | \$474.00 | \$558.00 | \$654.00 | \$714.00 | 68 | \$577.00 | \$577.00 | \$672.00 | \$768.00 | \$829.00 | |
| 240V/24V w/CPT ¹ | A3 | \$420.00 | \$420.00 | \$504.00 | - | - | B3 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 480V/24V w/CPT ¹ | A4 | \$420.00 | \$420.00 | \$504.00 | - | - | B4 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 600V/24V w/CPT ¹ | A5 | \$420.00 | \$420.00 | \$504.00 | - | - | B5 | \$523.00 | \$523.00 | \$618.00 | - | - | |
| 208V/24V w/CPT ¹ | A8 | \$420.00 | \$420.00 | \$504.00 | - | - | B8 | \$523.00 | \$523.00 | \$618.00 | - | - | |

Note: CPT includes 2 primary fuses and 1 secondary fuse.

¹24V coils not available for NEMA size 3 & 4.

Step 3 (Digits 10, 11) Select Protective Device

Mag-Break Circuit Breaker - Spectra™ Series

| NEMA Size | 200-208V | | | | 230-240V | | | | 460-480V | | | | 575-600V | | | |
|-----------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|----------|------------------|------|--------------------|
| | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 | Max Hp | CB Rating (Amps) | Code | List Price GO-10G1 |
| 0 | 3 | MA | | \$0.00 | 1/2 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 | 1 | 3 | MA | \$0.00 |
| | 1 | 7 | MB | \$0.00 | 1 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 | 3 | 7 | MB | \$0.00 |
| | 3 | 15 | MC | \$0.00 | 3 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 | 5 | 15 | MC | \$0.00 |
| 1 | 15 | MC | | \$0.00 | 15 | MC | | \$0.00 | 7 1/2 | 15 | MC | \$0.00 | 10 | 15 | MC | \$0.00 |
| | 20 | MD | | \$0.00 | 20 | MD | | \$0.00 | 10 | 20 | MD | \$0.00 | 20 | 20 | MD | \$0.00 |
| | 5 | 25 | ME | \$0.00 | 5 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 | 25 | 25 | ME | \$0.00 |
| | 30 | MF | | \$0.00 | 7 1/2 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 | 30 | 30 | MF | \$0.00 |
| 2 | 7 1/2 | 40 | MG | \$0.00 | 40 | MG | | \$0.00 | 40 | 40 | MG | \$0.00 | 40 | 40 | MG | \$0.00 |
| | 25 | ME | | \$0.00 | 25 | ME | | \$0.00 | 25 | 25 | ME | \$0.00 | 15 | 25 | ME | \$0.00 |
| | 30 | MF | | \$0.00 | 30 | MF | | \$0.00 | 15 | 30 | MF | \$0.00 | 20 | 30 | MF | \$0.00 |
| | 40 | MG | | \$0.00 | 10 | 40 | MG | \$0.00 | 20 | 40 | MG | \$0.00 | 25 | 40 | MG | \$0.00 |
| | 10 | 50 | MH | \$0.00 | 50 | MH | | \$0.00 | 25 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 |
| 3 | 60 | MJ | | \$0.00 | 15 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 | 60 | 60 | MJ | \$0.00 |
| | 40 | MG | | \$0.00 | 40 | MG | | \$0.00 | 40 | 40 | MG | \$0.00 | 30 | 40 | MG | \$0.00 |
| | 50 | MH | | \$0.00 | 50 | MH | | \$0.00 | 30 | 50 | MH | \$0.00 | 50 | 50 | MH | \$0.00 |
| | 60 | MJ | | \$0.00 | 60 | MJ | | \$0.00 | 60 | 60 | MJ | \$0.00 | 40 | 60 | MJ | \$0.00 |
| | 15 | 70 | MK | \$0.00 | 20 | 70 | MK | \$0.00 | 40 | 70 | MK | \$0.00 | 50 | 70 | MK | \$0.00 |
| | 20 | 80 | ML | \$0.00 | 80 | ML | | \$0.00 | 80 | 80 | ML | \$0.00 | 80 | 80 | ML | \$0.00 |
| 4 | 90 | MM | | \$0.00 | 25 | 90 | MM | \$0.00 | 50 | 90 | MM | \$0.00 | 90 | 90 | MM | \$0.00 |
| | 25 | 100 | MN | \$0.00 | 30 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 | 100 | 100 | MN | \$0.00 |
| | 80 | ML | | \$0.00 | 80 | ML | | \$0.00 | 80 | 80 | ML | \$0.00 | 60 | 80 | ML | \$0.00 |
| | 100 | MN | | \$0.00 | 100 | MN | | \$0.00 | 60 | 100 | MN | \$0.00 | 75 | 100 | MN | \$0.00 |
| | 30 | 125 | MQ | \$0.00 | 125 | MQ | | \$0.00 | 75 | 125 | MQ | \$0.00 | 125 | 125 | MQ | \$0.00 |
| 4 | 40 | 150 | MR | \$0.00 | 40 | 150 | MR | \$0.00 | 150 | 150 | MR | \$0.00 | 100 | 150 | MR | \$0.00 |
| | 175 | MS | | \$0.00 | 50 | 175 | MS | \$0.00 | 100 | 175 | MS | \$0.00 | 175 | 175 | MS | \$0.00 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR494 Mag-Break Magnetic Starters

2 Speed - 2 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 4 (Digit 12) Select Overload Relay

| Overload Relay | Code | List Price GO-10G1 |
|---|------|-----------------------|
| Thermal Bi-Metallic Non-compensated (1NC) | 1 | \$0.00 |
| Thermal Bi-Metallic Non-compensated (1NO-1NC) | 2 | \$48.00 |
| Thermal Bi-Metallic Ambient Compensated (1NC) | 3 | \$54.00 |
| Thermal Bi-Metallic Ambient Compensated (1NO-1NC) | 4 | \$102.00 |
| Solid State Overload (1NO-1NC) | (#) | \$54.00 |

(#) Select Code for Solid State Overload amp rating from table below.

2-Speed Solid State Overload Ranges

| Code | NEMA SIZE | | | | | |
|------|------------|------------|------------|------------|----------|----------|
| | 0 & 1 | | 2 | | 3 & 4 | |
| | Hi Amp | Lo Amp | Hi Amp | Lo Amp | Hi Amp | Lo Amp |
| C | 0.4 - 0.85 | 0.4 - 0.85 | 6.5 - 13.5 | 6.5 - 13.5 | 17 - 35 | 17 - 35 |
| D | 0.8 - 1.7 | 0.4 - 0.85 | 13 - 27 | 6.5 - 13.5 | 35 - 70 | 17 - 35 |
| E | 0.8 - 1.7 | 0.8 - 1.7 | 13 - 27 | 13 - 27 | 35 - 70 | 35 - 70 |
| F | 1.6 - 3.4 | 0.4 - 0.85 | 25 - 50 | 6.5 - 13.5 | 65 - 135 | 17 - 35 |
| G | 1.6 - 3.4 | 0.8 - 1.7 | 25 - 50 | 13 - 27 | 65 - 135 | 35 - 70 |
| H | 1.6 - 3.4 | 1.6 - 3.4 | 25 - 50 | 25 - 50 | 65 - 135 | 65 - 135 |
| U | 3.2 - 6.8 | 0.8 - 1.7 | - | - | - | - |
| K | 3.2 - 6.8 | 1.6 - 3.4 | - | - | - | - |
| L | 3.2 - 6.8 | 3.2 - 6.8 | - | - | - | - |
| M | 6.5 - 13.5 | 1.6 - 3.4 | - | - | - | - |
| V | 6.5 - 13.5 | 3.2 - 6.8 | - | - | - | - |
| W | 6.5 - 13.5 | 6.5 - 13.5 | - | - | - | - |
| R | 13 - 27 | 3.2 - 6.8 | - | - | - | - |
| S | 13 - 27 | 6.5 - 13.5 | - | - | - | - |
| T | 13 - 27 | 13 - 27 | - | - | - | - |

Step 5 (Digit 13) Select Auxiliary Contacts

| Aux Contacts (per Contactor) | Code | List Price GO-10G1 |
|---------------------------------|----------------|-----------------------|
| None | A | \$0.00 |
| 1NO | B | \$132.00 |
| 1NC | C | \$132.00 |
| 1NO-1NC | D ² | \$264.00 |
| 2NO | E ² | \$264.00 |
| 2NC | F ² | \$264.00 |

²Not available on 2 speed - 1 winding sizes 0-1.

Step 6 (Digit 14) Select Monitoring Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 190-480V (PFR w/UV) | C | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay with Undervoltage Protection (panel mounted) - 575V (PFR w/UV) | D | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Phase Failure Relay - 208V (PFR) | E ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 240V (PFR) | F ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 480V (PFR) | G ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Phase Failure Relay - 575V (PFR) | H ³ | \$425.00 | - | \$425.00 | - | \$425.00 | - |
| Elapsed Time Meter (120V/60Hz) Wired Across Coil (ETM) | I ⁴ | \$348.00 | \$588.00 | \$348.00 | \$588.00 | \$348.00 | \$588.00 |
| ETM + PFR w/UV (190-480V) | L ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR w/UV (575V) | N ⁴ | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 | \$1404.00 | \$1644.00 |
| ETM + PFR (208V) | p ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (240V) | Q ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (480V) | R ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |
| ETM + PFR (575V) | S ^{3,4} | \$773.00 | - | \$773.00 | - | \$773.00 | - |

³Available for Type 1 Enclosure only.

⁴Requires 120V Control Circuit Voltage or CPT w/ 120V Secondary.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR494 Mag-Break Magnetic Starters

2 Speed – 2 Winding, Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 0-4

Step 7 (Digit 15) Select Push Button/Selector Switch

| Push Button/Selector Switch - Heavy Duty | Code | List Price GO-10G1 |
|---|------|-----------------------|
| None | A | \$0.00 |
| Fast/Slow/Stop Push Button | J | \$240.00 |
| High/Low/Off Push Button | K | \$240.00 |
| High/Low Push Button & HOA Selector Switch | L | \$264.00 |
| Fast/Slow Push Button & HOA Selector Switch | M | \$264.00 |
| HOA & Slow/Fast Selector Switches | P | \$264.00 |
| HOA & Low/High Selector Switches | R | \$264.00 |
| Slow-Off-Fast Selector Switch | T | \$132.00 |
| Low-Off-High Selector Switch | U | \$132.00 |
| Fast-Slow-Off-Auto Selector Switch | V | \$150.00 |
| High-Low-Off-Auto Selector Switch | W | \$150.00 |

Step 8 (Digit 16) Select Pilot Device

| Pilot Light (Heavy Duty CR104P Style) | | Code | List Price GO-10G1 |
|--|--|------|-----------------------|
| Type | Color - Functionality | | |
| None | | A | \$0.00 |
| Standard Lights | Red & Amber Across Coils | K | \$324.00 |
| | Red & Green Across Coils | L | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | X | \$486.00 |
| LED Lights | Red & Amber Across Coils | 2 | \$324.00 |
| | Red & Green Across Coils | 3 | \$324.00 |
| | Red & Amber Across Coils & Unwired Green | 5 | \$486.00 |
| Push-To-Test Lights | Red & Amber Across Coils | S | \$360.00 |
| | Red & Green Across Coils | T | \$360.00 |
| | Red & Amber Across Coils & Unwired Green | Y | \$540.00 |

Step 9 (Digit 17) Select Control Options

| Device | Code | List Price GO-10G1 | | | | | |
|---|------------------|--------------------|-----------|------------------|-----------|------------------|-----------|
| | | NEMA Size 0-2 | | NEMA Size 3 | | NEMA Size 4 | |
| | | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X | Type 1, 3R, & 12 | Type 4/4X |
| None | A | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 1 Relay, 2NO-2NC, 24/120V Coil - unwired | B ⁵ | \$306.00 | \$468.00 | \$306.00 | \$468.00 | \$480.00 | \$636.00 |
| 2 Relays, 24/120V Coil - unwired | C ⁵ | \$612.00 | \$936.00 | \$612.00 | \$936.00 | \$960.00 | \$1272.00 |
| DIN Rail - for Customer Use | D | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 | \$89.00 |
| 12 Point Terminal Strip - unwired (12 PT Strip) | E | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 | \$109.00 |
| Space Heater w/ NC Contact | H ⁶ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 |
| 1 Relay + 12 PT Strip | J ⁵ | \$415.00 | \$577.00 | \$415.00 | \$577.00 | \$589.00 | \$745.00 |
| 2 Relays + 12 PT Strip | K ⁵ | \$721.00 | \$1045.00 | \$721.00 | \$1045.00 | \$1069.00 | \$1381.00 |
| DIN Rail + 12 PT Strip + Space Heater | L ⁶ | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 | \$318.00 |
| 2 Relays + 12 PT Strip + Space Heater | M ^{5,6} | \$841.00 | \$1165.00 | \$841.00 | \$1165.00 | \$1189.00 | \$1501.00 |
| Time Delay ON Relay, 24/120V Coil - unwired (TD) | N ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| Time Delay OFF Relay, 24/120V Coil - unwired (TD) | P ⁵ | \$504.00 | \$660.00 | \$504.00 | \$660.00 | \$504.00 | \$660.00 |
| 12 PT Strip + TD ON | R ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + TD OFF | S ⁵ | \$613.00 | \$769.00 | \$613.00 | \$769.00 | \$613.00 | \$769.00 |
| 12 PT Strip + Space Heater + TD ON | T ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |
| 12 PT Strip + Space Heater + TD OFF | U ^{5,6} | \$733.00 | \$889.00 | \$733.00 | \$889.00 | \$733.00 | \$889.00 |

⁵Relay/Timer coil voltage is equivalent to CPT secondary voltage. Requires minimum 100 extra VA CPT option.

⁶Maximum number of auxiliary contacts shall be reduced by 1.

GENERAL NOTE:

If selecting factory installed and wired operator devices (Push Buttons, Selector Switches, and/or Pilot Lights) control circuit fusing, a control power transformer, or 24V/120V separate sourced control is required, regardless of protective device rating.



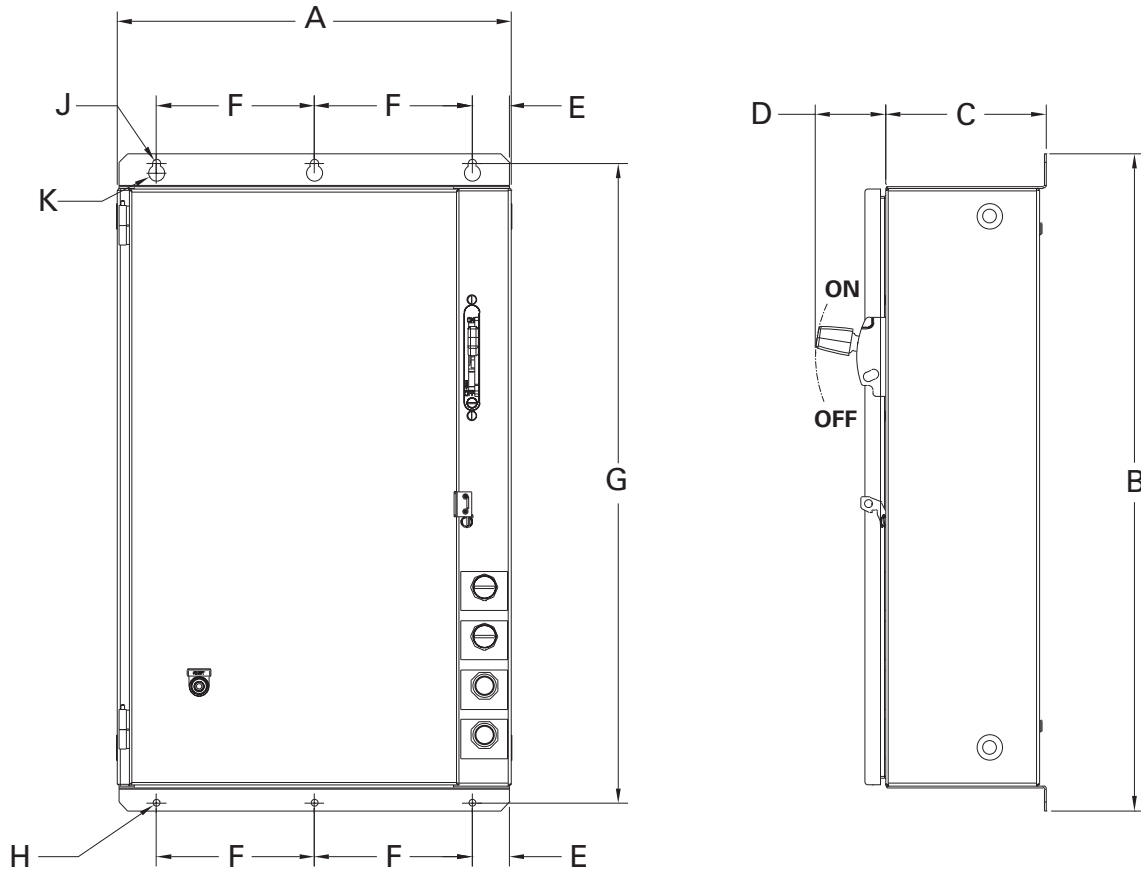
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR412, CR413, CR492, CR414, CR415, CR494 Magnetic Starters

Section 1

2 Speed, Combination, NEMA Type 1, 3R, 12, 4/4X
 100 Horsepower Maximum
 NEMA Sizes 0-4
 600 Volts Maximum 50/60Hz
 Outlines, Dimensions in. (mm)



NEMA Type 1 Enclosure

(Enclosure Code = 1)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 19.78 (502.4) | 33.32 (846.3) | 8.14 (206.7) | 3.56 (90.4) | 1.89 (48.0) | 8.00 (203.2) | 32.44 (824.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367) | 8.14 (206.7) | 3.73 (94.6) | 3.39 (86.1) | 8.00 (203.2) | 52.94 (1344.7) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |

NEMA Type 3R/12 Enclosure

(Enclosure Code = 6 or 2)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.25 (844.6) | 8.20 (208.2) | 3.48 (88.5) | 1.91 (48.5) | 8.00 (203.2) | 32.13 (816.0) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.82 (1367.0) | 8.20 (208.2) | 3.50 (88.8) | 3.41 (86.6) | 8.00 (203.2) | 52.70 (1338.5) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR412, CR413, CR492, CR414, CR415, CR494 Magnetic Starters

Section 1

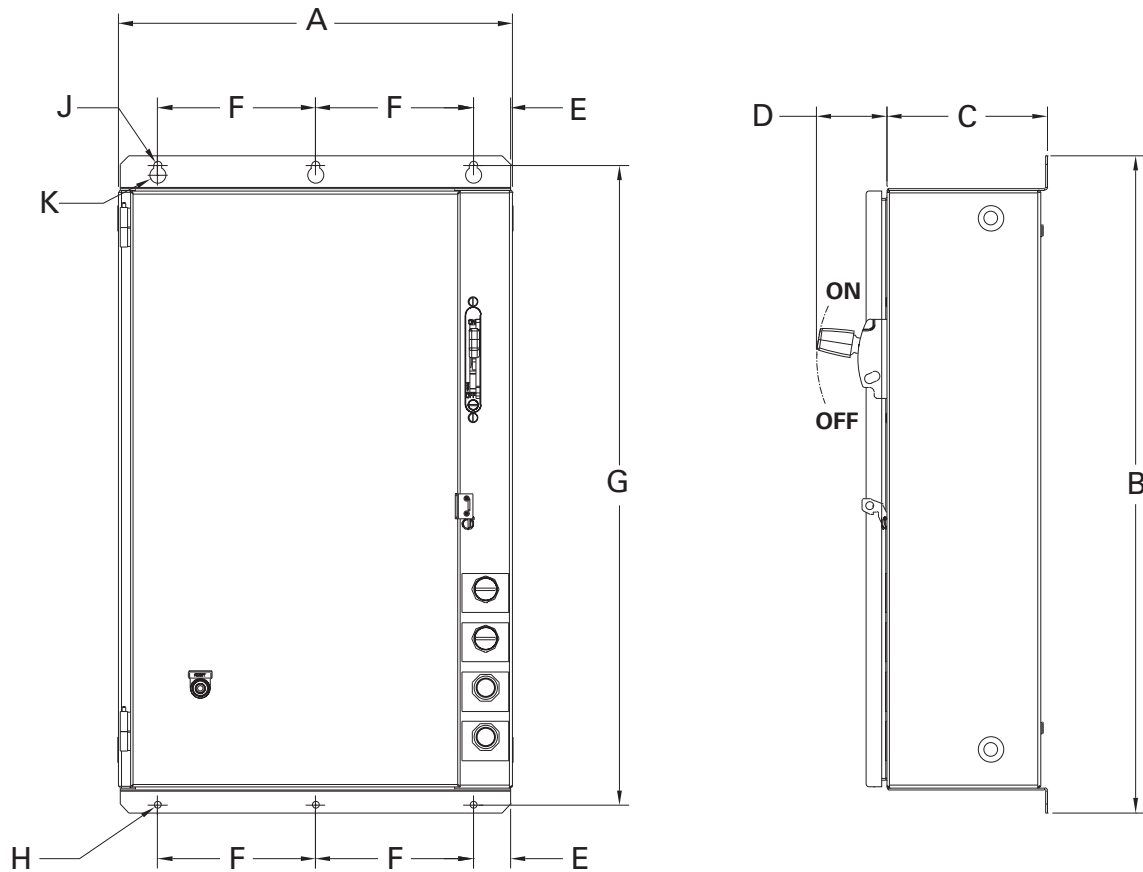
2 Speed, Combination, NEMA Type 1, 3R, 12, 4/4X

100 Horsepower Maximum

NEMA Sizes 0-4

600 Volts Maximum 50/60Hz

Outlines, Dimensions in. (mm)



NEMA Type 4/4X Enclosure

(Enclosure Code = 4)

| NEMA Size | A | B | C | D | E | F | G | H (dia) | J (dia) | K (dia) |
|-----------|------------------|-------------------|-----------------|----------------|----------------|-----------------|-------------------|---------------|----------------|----------------|
| 0-2 | 20.00 (508.0) | 33.32 (846.3) | 8.14 (206.7) | 3.72 (94.6) | 1.91 (48.5) | 8.00 (203.2) | 32.20 (817.8) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |
| 3-4 | 23.00 (584.2) | 53.76 (1365.5) | 8.14 (206.7) | 3.55 (90.2) | 3.41 (86.6) | 8.00 (203.2) | 52.64 (1336.9) | 0.34 (8.7) | 0.41 (10.3) | 0.81 (20.6) |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

NEMA Sizes 00-6

Starter Modifications—Factory Installed

Factory-installed modifications are available for those starters as indicated in the tables. Shown here are the **List Price Additions** to standard catalog listed forms and are subject to **GO-10G** discount. Prices shown are not to be used as separate selling prices. For field modification kits see pages 1-124 to 1-131. Supplying combinations of these items may affect standard enclosure dimensions and type of construction. In extreme instances, it may not be possible to furnish all of them within the limitations of a starter design.

| Type of Installation/ Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | | | | |
|--|----------|--|----------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | | | | List Price Addition, GO-10G | | | | | | | | | |
| Pilot Devices Mounted in Cover or Flange of CR306 CR307 CR308 CR387 CR407 CR408 CR487 | 1 | Push Buttons | | | | | | | | | | | |
| | 1a | START-STOP ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 | |
| | 1b | OFF-ON ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 | |
| | 1c | START-STOP (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 1d | START Push Button and H-O-A Selector Switch (HEAVY-DUTY, CR104P) | Any | ² | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | |
| | 1e | Single Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | 1 | ² | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | |
| | | Single Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | Any | ² | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | |
| | 1f | Single Illuminated Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | Any | ² | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | |
| | 2 | Selector Switches | | | | | | | | | | | |
| | 2a | HAND-OFF-AUTO ^{1,3} | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 | |
| | | HAND-OFF-AUTO ^{1,3} (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 2b | OFF-ON ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 | |
| | | OFF-ON (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 2c | Single Selector Switch Maintained (Specify Marking) | | | | | | | | | | | |
| | | Two- or Three-Position (Specify Position) ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | | Four-Position ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | |
| | 2d | Key Operated Maintained (Specify Marking and Key-Removal Position) | | | | | | | | | | | |
| | | Two- or Three-Position ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | |
| | 3 | Nonstandard Markings (Specify) | Any | ² | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | |

¹ Factory-installed modification kit for sizes 00-5.

² Not available in NEMA Size 00. Use Size 0 starter and modification.

³ This modification not available with items 1a, 1b or 1c because STOP push button would not work in AUTO position; instead order modification 1d.

⁴ Specify CR104 operator and contact block by product number.

Control Circuit Fusing

Per the NEC and UL508 Section 18.2 - Control Circuit Fuses must be used when the branch circuit protective device rating is too large to serve as protection for the control circuit. This depends on the control wire size and whether all control circuit wires are within the enclosure. See table below:

| Control Circuit Wire Size (AWG) | Provide supplemental control circuit protection if control circuits with wires longer than 12 inches are connected to branch circuit protection exceeding the ratings below | | Maximum Supplemental Control Circuit Protection Rating (Amperes) |
|---------------------------------|---|------------------------------|--|
| | Maximum Branch Circuit Protection Rating (Amperes) | | |
| | Conductors within Enclosure | Conductors outside Enclosure | |
| 22 | 12 | 3 | 3 |
| 20 | 20 | 5 | 5 |
| 18 | 25 | 7 | 7 |
| 16 | 40 | 10 | 10 |
| 14 | 100 | 45 | 20 |
| 12 | 120 | 60 | 25 |

The factory must provide this protection, if the circuit provided by the factory requires the fuses. The factory will provide control circuit fuses in enclosed starters and contactors with pilot devices, control relays or other control components that are factory wired; when used with line voltage control; when the size listed below is being supplied.

Non-combination starters (CR305, CR306, CR309, CR385, CR386)
Size 4 and above

Combination starters
Size 0-3 with Mag-Break Protector
Size 3 with:
—Circuit Breaker greater than 100 amps, or
—Fuse Clips greater than 100 amps, or
Size 4 and above with any circuit breakers, circuit protector or fuse clips.

Control Circuit fuses (Modification 9) must be added to the enclosed starter or contactor pricing.

All CPTs will be supplied with primary fuses. CPTs without primary fuses are no longer available.

When control circuit fuses are not factory supplied, customer provided wiring or branch circuit protection sizing to these contactors and starters may still require that the customer/installer add the fusing in the field. It will be the customer/installer's responsibility to ensure code compliance under these conditions.

Heater Selection Tables: See pages 1-153 to 1-159



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

Starter Modifications—Factory Installed

The general information at the top of page 1-124 regarding factory-installed modifications, also applies to those listed in the table below.

| Type of Installation/ Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | | | | | |
|---|---|---|----------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | |
| | | | | List Price Addition, GO-10G | | | | | | | | | | |
| Pilot Devices Mounted In Cover or Flange of CR306, CR307, CR308, CR387, CR407, CR408, CR487 | 4 | Indicating Light ¹ | | | | | | | | | | | | |
| | 4a | One (Red Only) ² | 1 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$162.00 | | |
| | 4b | One (Specify Red or Green) (HEAVY-DUTY, CR104P) | Any | ³ | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | |
| | 4c | Two (Includes 1 NC Auxiliary Contact) ⁴ (HEAVY-DUTY, CR104P) | Any | ³ | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | |
| | 4d | One Push-To-Test and/or Transformer Type (Red or Green) | Any | ³ | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | |
| | 4e | Two Push-To-Test (Includes 1 NC Auxiliary Contact) and/or Transformer Type ⁴ | Any | ³ | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | |
| Pilot Devices Mounted In Cover or Flange of CR309, CR310, CR311, CR390, CR410, CR411, CR490 | 5 | Push Buttons | | | | | | | | | | | | |
| | 5a | FORWARD-STOP-REVERSE | Any | ³ | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | |
| | 5b | HIGH-LOW-OFF | Any | ³ | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | |
| | 5c | FAST-SLOW-STOP | Any | ³ | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | \$240.00 | |
| | 5d | HIGH-LOW Push Button and H-O-A Selector Switch | Any | ³ | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | |
| | 5e | Single Push Button, Unwired (Specify Marking) ⁵ | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 5f | Single Illuminated Push Button, Unwired (Specify Marking) ⁵ | Any | ³ | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | |
| | 6 | Selector Switches | | | | | | | | | | | | |
| | 6a | LOW-OFF-HIGH | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 6b | SLOW-OFF-FAST | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 6c | FORWARD-OFF-REVERSE | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 6d | LOW-HIGH and HAND-OFF-AUTO | Any | ³ | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | |
| | 6e | HAND-OFF-AUTO | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 6f | Single Selector Switch Maintained (Specify Marking and Positions) (Specify Two or Three Positions) ⁵ | Any | ³ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| 6g | Key Operated Maintained (Specify Marking and Key-Removal Positions) (Specify Two or Three Positions) ⁵ | Any | ³ | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | | |
| 6h | Nonstandard Markings | Any | ³ | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | | |

Note: For indicating light modifications on CR309-311 & CR390, see p. 1-124.

¹ One indicating light: Wired in parallel with operating coil.

Two indicating lights: Red is wired in parallel with operating coil, green is wired through an auxiliary contact.

² Factory-installed field modification kit for sizes 00-4 and size 5 without CPT.

³ Not available in NEMA Size 00. Use Size 0 starter and modification.

⁴ Maximum of three additional auxiliary contacts available on size 0-1.

⁵ Specify CR104P operator and contact block by product number.

Control Circuit Fusing

Per the NEC and UL508 Section 18.2 - Control Circuit Fuses must be used when the branch circuit protective device rating is too large to serve as protection for the control circuit. This depends on the control wire size and whether all control circuit wires are within the enclosure. See table below:

Provide supplemental control circuit protection if control circuits with wires longer than 12 inches are connected to branch circuit protection exceeding the ratings below

| Control Circuit Wire Size (AWG) | Maximum Branch Circuit Protection Rating (Amperes) | | Maximum Supplemental Control Circuit Protection Rating (Amperes) |
|---------------------------------|--|------------------------------|--|
| | Conductors within Enclosure | Conductors outside Enclosure | |
| 22 | 12 | 3 | 3 |
| 20 | 20 | 5 | 5 |
| 18 | 25 | 7 | 7 |
| 16 | 40 | 10 | 10 |
| 14 | 100 | 45 | 20 |
| 12 | 120 | 60 | 25 |

The factory must provide this protection, if the circuit provided by the factory requires the fuses. The factory will provide control circuit fuses in enclosed starters and contactors with pilot devices, control relays or other control components that are factory wired; when used with line voltage control; when the size listed below is being supplied.

Non-combination starters (CR305, CR306, CR309, CR385, CR386)

Size 4 and above

Combination starters

Size 0-3 with Mag-Break Protector

Size 3 with:

—Circuit Breaker greater than 100 amps, or

—Fuse Clips greater than 100 amps, or

Size 4 and above with any circuit breakers, circuit protector or fuse clips.

Control Circuit fuses (Modification 9) must be added to the enclosed starter or contactor pricing.

All CPTs will be supplied with primary fuses. CPTs without primary fuses are no longer available.

When control circuit fuses are not factory supplied, customer provided wiring or branch circuit protection sizing to these contactors and starters may still require that the customer/installer add the fusing in the field. It will be the customer/installer's responsibility to ensure code compliance under these conditions.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

Starter Modifications—Factory Installed

The general information at the top of page 1-124, regarding factory-installed modifications, also applies to those listed in the table below.

| Type of Installation/ Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | | | | | |
|---|------------------|---|----------------|-----------------------------|--------------|----------|----------|----------|----------|----------|--------------|--------------|--------------|--------------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | |
| | | | | List Price Addition, GO-10G | | | | | | | | | | |
| Pilot Devices Mounted in Cover or Flange of CR309, CR410, CR411, CR490 | 7 | Indicating Lights (Specify Color) ¹ | | | | | | | | | | | | |
| | 7a | Two | Any | ² | \$324.00 | \$324.00 | \$324.00 | \$324.00 | \$324.00 | \$324.00 | \$324.00 | \$324.00 | \$324.00 | |
| | 7b | Three | Any | ² | \$618.00 | \$618.00 | \$618.00 | \$618.00 | \$618.00 | \$618.00 | \$618.00 | \$618.00 | \$618.00 | |
| | 7c | Two Push-To-Test | Any | ² | \$360.00 | \$360.00 | \$360.00 | \$360.00 | \$360.00 | \$360.00 | \$360.00 | \$360.00 | \$360.00 | |
| | 7d | Three Push-To-Test | Any | ² | \$672.00 | \$672.00 | \$672.00 | \$672.00 | \$672.00 | \$672.00 | \$672.00 | \$672.00 | \$672.00 | |
| Control Circuit in CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 8 | Separate Control Circuit (Specify Voltage and Frequency, Reference Items 13a and 13b for Standard Voltages) | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | |
| | 9 | Fused Control Circuit—Two Fuses | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |
| | 10 | Control Transformer—Standard Capacity, 50 or 60 Hertz ³ Two Primary and One Fuse Secondary, (Specify Voltage Rating) Standard Voltages at 60 Hertz 220-230-240 Primary, 110-115-120 Secondary 440-460-480 Primary, 110-115-120 Secondary 550-575-600 Primary, 110-115-120 Secondary 200-208 Primary, 115-120 Secondary | Any | ² | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 | \$594.00 | \$594.00 | \$594.00 | \$594.00 | |
| | 11 | Control Transformer—100 VA Additional Capacity, 60 Hertz | Any | ² | \$420.00 | \$420.00 | \$504.00 | \$600.00 | \$660.00 | \$720.00 | \$720.00 | \$720.00 | \$720.00 | |
| | 12 | | | | | | | | | | | | | |
| | 13 | Operating Coil | | | | | | | | | | | | |
| | 13a ⁶ | Standard Voltages at 60 Hertz: 24, 115-120, 200-208, 230-240, 460-480, 575-600 | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | ⁶ | ⁶ | ⁶ | ⁶ |
| | 13b | Standard Voltages at 50 Hertz: 110, 220, 380-415, 440, 550 | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | 13d ⁴ | DC—Standard Voltages: 24, 115-125 | Any | ⁵ | ⁵ | \$102.00 | \$114.00 | \$198.00 | \$264.00 | \$720.00 | \$720.00 | \$720.00 | \$720.00 | |

¹ Two indicating lights have each one wired in parallel with each operating coil. (Both red or red/amber or red/green.) Three lights have one wired in parallel with each operating coil with the third one wired through two normally closed auxiliary contacts. (Both red or red/amber, with green "OFF.")

² Not available in NEMA Size 00. Use size 0 starter and modification.

³ The National Electrical Code, Article 450-3(B), requires primary fuses in most typical installations. Refer to the NEC, Article 450 prior to ordering control transformer without primary fuses to insure compliance. Control circuit fuse kits from page 1-136 may be used to provide primary fusing. Fuses must be sized to meet the requirements of the NEC according to the "Recommended Fuse" table.

⁴ Available in CR305 Contactor forms.

⁵ Not available in NEMA Sizes 00 or 0. Use Size 1 contactor and modification.

⁶ 24V coil not available on size 5 and 6.

Recommended Fuse

| CPT VA | Primary Voltage | | |
|--------|-----------------|-----|------|
| | 208/240 | 480 | 600 |
| 50 | 1 | 0.5 | 0.5 |
| 100 | 2 | 1 | 0.75 |
| 150 | 3 | 1.5 | 1 |
| 250 | 5 | 2 | 2 |
| 300 | 6 | 3 | 2 |

Control Circuit Fusing

Per the NEC and UL508 Section 18.2 - Control Circuit Fuses must be used when the branch circuit protective device rating is too large to serve as protection for the control circuit. This depends on the control wire size and whether all control circuit wires are within the enclosure. See table below:

| Control Circuit Wire Size (AWG) | Maximum Branch Circuit Protection Rating (Amperes) | | Maximum Supplemental Control Circuit Protection Rating (Amperes) |
|---------------------------------|--|------------------------------|--|
| | Conductors within Enclosure | Conductors outside Enclosure | |
| | 22 | 12 | |
| 20 | 20 | 5 | 5 |
| 18 | 25 | 7 | 7 |
| 16 | 40 | 10 | 10 |
| 14 | 100 | 45 | 20 |
| 12 | 120 | 60 | 25 |

Provide supplemental control circuit protection if control circuits with wires longer than 12 inches are connected to branch circuit protection exceeding the ratings below

The factory must provide this protection, if the circuit provided by the factory requires the fuses. The factory will provide control circuit fuses in enclosed starters and contactors with pilot devices, control relays or other control components that are factory wired; when used with line voltage control; when the size listed below is being supplied.

Non-combination starters (CR305, CR306, CR309, CR385, CR386)
Size 4 and above

Combination starters

Size 0-3 with Mag-Break Protector

Size 3 with:

—Circuit Breaker greater than 100 amps, or

—Fuse Clips greater than 100 amps, or

Size 4 and above with any circuit breakers, circuit protector or fuse clips.

Control Circuit fuses (Modification 9) must be added to the enclosed starter or contactor pricing.

All CPTs will be supplied with primary fuses. CPTs without primary fuses are no longer available.

When control circuit fuses are not factory supplied, customer provided wiring or branch circuit protection sizing to these contactors and starters may still require that the customer/installer add the fusing in the field. It will be the customer/installer's responsibility to ensure code compliance under these conditions.

Heater Selection Tables: See pages 1-153 to 1-159



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

Starter Modifications—Factory Installed

The general information at the top of page 1-124, regarding factory-installed modifications, also applies to those listed in the table below.

| Type of Installation/Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | | |
|--|--------------------------|--|-------------------|-----------------------------|-----------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | List Price Addition, GO-10G | | | | | | | |
| Auxiliary Relays Mounted In CR306, CR307, CR308, CR387, CR407, CR408, CR487 | 14 ¹ | Control Relay, Four-Pole (Convertible) Unwired (Specify Coil Voltage) | 1, 3R, 12 4/4X | ² | \$306.00 ³ | \$306.00 ³ | \$306.00 | \$306.00 | \$480.00 | \$540.00 | \$540.00 |
| | 15 ¹ | Time-Delay Relay, Unwired, Pneumatic—1 to 60 Seconds, 1 NO-1 NC (Specify TDD or TDE and Coil Voltage) ³ | 1, 3R, 12 4/4X | ² | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 |
| | 16 ¹ | Timing Relay, Motor Driven, Unwired (Specify Voltage & Timing Range) ³ | Any | ² | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| | 17 ¹ | Phase Loss, Phase Reversal, Three-Phase, Undervoltage Relay (Starting & Running Protection, Specify Voltage) | Any | ² | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| | 18 | Two-Speed Controllers | | | | | | | | | |
| Auxiliary Relays Mounted In CR309, CR310, CR311, CR390, CR410, CR411, CR490 | 18a | Compelling Relay (Forces Low-Speed Start) ³ | Any | ² | \$396.00 | \$396.00 | \$396.00 | \$396.00 | \$396.00 | \$396.00 | \$396.00 |
| | 18b | Accelerating or Decelerating, Timing Relay (Imposes Time-delay Between Speed Change) ³ | Any | ² | \$924.00 | \$924.00 | \$924.00 | \$924.00 | \$924.00 | \$924.00 | \$924.00 |
| Auxiliary Contacts Mounted In CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 19 | Magnetic Contactor or Starter (Specify Number of NO or NC) — Single Speed, Nonreversing: Four Maximum, Sizes 0, 1 Five Maximum, Size 2-6 Reversers and Two-Speed, Two Winding: Two Maximum, Per Contactor, Sizes 0-6 Two-Speed, One Winding: One on Left Contactor, Two on Right Contactor, Size 0, 1 Two Maximum Per Contactor, Sizes 2-6 | Any | ² | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 |
| Auxiliary Contacts on Operator Handle | 20 | Disconnect Switch | | | | | | | | | |
| | 20a | One Normally Open or One Normally Closed (Specify) | 1, 3R, 4/4X, 12 | ² | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 |
| | 20b | Single Pole Double Throw | 1, 3R, 4/4X, 12 | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 21 | Circuit Breaker | | | | | | | | | |
| | 21a | One Normally Open or One Normally Closed (Specify) | 1, 3R, 4/4X, 12 | ² | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 |
| 21b | Single Pole Double Throw | 1, 3R, 4/4X, 12 | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | |

¹ NEMA Type 1 enclosures require oiltight pilot devices when this modification is used with NEMA Starter sizes 0, 1, and 2. Only oiltight pilot devices will fit the oversized enclosure required. The list price addition for the oversized enclosure is already included in the published list price.

² Not available in NEMA Size 00. Use Size 0 starter and modification.

³ Requires 100 VA extra capacity control transformer.

Control Circuit Fusing

Per the NEC and UL508 Section 18.2 - Control Circuit Fuses must be used when the branch circuit protective device rating is too large to serve as protection for the control circuit. This depends on the control wire size and whether all control circuit wires are within the enclosure. See table below:

Provide supplemental control circuit protection if control circuits with wires longer than 12 inches are connected to branch circuit protection exceeding the ratings below

| Control Circuit Wire Size (AWG) | Maximum Branch Circuit Protection Rating (Amperes) | | Maximum Supplemental Control Circuit Protection Rating (Amperes) |
|---------------------------------|--|------------------------------|--|
| | Conductors within Enclosure | Conductors outside Enclosure | |
| 22 | 12 | 3 | 3 |
| 20 | 20 | 5 | 5 |
| 18 | 25 | 7 | 7 |
| 16 | 40 | 10 | 10 |
| 14 | 100 | 45 | 20 |
| 12 | 120 | 60 | 25 |

The factory must provide this protection, if the circuit provided by the factory requires the fuses. The factory will provide control circuit fuses in enclosed starters and contactors with pilot devices, control relays or other control components that are factory wired; when used with line voltage control; when the size listed below is being supplied.

Non-combination starters (CR305, CR306, CR309, CR385, CR386)

Size 4 and above

Combination starters

Size 0-3 with Mag-Break Protector

Size 3 with:

—Circuit Breaker greater than 100 amps, or

—Fuse Clips greater than 100 amps, or

Size 4 and above with any circuit breakers, circuit protector or fuse clips.

Control Circuit fuses (Modification 9) must be added to the enclosed starter or contactor pricing.

All CPTs will be supplied with primary fuses. CPTs without primary fuses are no longer available.

When control circuit fuses are not factory supplied, customer provided wiring or branch circuit protection sizing to these contactors and starters may still require that the customer/installer add the fusing in the field. It will be the customer/installer's responsibility to ensure code compliance under these conditions.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

Starter Modifications—Factory Installed

The general information at the top of page 1-124, regarding factory-installed modifications, also applies to those listed in the table below.

| Type of Installation/ Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | | |
|---|----------|---|----------------|-----------------------------|----------|----------|----------|----------|-----------|-----------|-----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | List Price Addition, GO-10G | | | | | | | |
| Overload Relay Mounted On CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 22a | 1 NC Contact, Manual Reset (Standard) | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | 22b | 1 NO and 1 NC Isolated Contact | Any | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 |
| | 22c | Ambient Compensated (1 NC Contact) | Any | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 |
| | 23 | Automatic Reset | Any | \$50.00 | \$50.00 | \$50.00 | \$50.00 | \$50.00 | \$50.00 | \$50.00 | \$50.00 |
| | 24 | Omit the Overload (Deduct) | Any | \$-30.00 | \$-30.00 | \$-30.00 | \$-54.00 | \$-90.00 | \$-144.00 | \$-504.00 | \$-504.00 |
| | 25 | Solid-State Overload ¹ | Any | — | — | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 | \$27.00 |
| Metering Mounted In CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 27 | Elapsed Time Meter | 1, 3R, 12 | ² | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 |
| | | | 4/4X | ² | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 |
| Fuse Clips Mounted In CR308, CR311, CR408, CR411 | 28 | Class H (Standard) | Any | ² | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | | Class J | Any | ² | \$18.00 | \$18.00 | \$30.00 | \$72.00 | \$120.00 | \$168.00 | — |
| | | Class R | Any | ² | \$9.00 | \$9.00 | \$9.00 | \$18.00 | \$18.00 | \$42.00 | — |
| Enclosure CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 30 | Space Heater ³ | Any | ² | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$420.00 |
| | | 50 Watts—NEMA Size 0-4 Contactor/Starter 100 Watts—NEMA Size 5 Contactor/Starter | | | | | | | | | |
| Misc. Mounted On CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 | 31 | Operating Coil Surge Suppressor (120 V/60 Hz) | Any | ² | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 |
| | 32 | Insulated Neutral Lug | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 33 | Ground Lug | Any | ² | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 |
| | 34 | Terminal Block, (Catalog Number CR151B) 30A, Unwired (per point) (Specify Points) | Any | ² | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 |
| | 35 | Power Factor Correction Capacitor Terminals | Any | ² | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 |

¹Solid-state overload is ambient insensitive and has 1 NO and 1 NC isolated contacts as standard.

²Not available in NEMA Size 00. Use Size 0 starter and modification.

³If connected to control circuit transformer, 115-Volt heater requires an extra capacity transformer for Size 0-1 and Size 5.

Control Circuit Fusing

Per the NEC and UL508 Section 18.2 - Control Circuit Fuses must be used when the branch circuit protective device rating is too large to serve as protection for the control circuit. This depends on the control wire size and whether all control circuit wires are within the enclosure. See table below:

Provide supplemental control circuit protection if control circuits with wires longer than 12 inches are connected to branch circuit protection exceeding the ratings below

| Control Circuit Wire Size (AWG) | Maximum Branch Circuit Protection Rating (Amperes) | | Maximum Supplemental Control Circuit Protection Rating (Amperes) |
|---------------------------------|--|------------------------------|--|
| | Conductors within Enclosure | Conductors outside Enclosure | |
| 22 | 12 | 3 | 3 |
| 20 | 20 | 5 | 5 |
| 18 | 25 | 7 | 7 |
| 16 | 40 | 10 | 10 |
| 14 | 100 | 45 | 20 |
| 12 | 120 | 60 | 25 |

The factory must provide this protection, if the circuit provided by the factory requires the fuses. The factory will provide control circuit fuses in enclosed starters and contactors with pilot devices, control relays or other control components that are factory wired; when used with line voltage control; when the size listed below is being supplied.

Non-combination starters (CR305, CR306, CR309, CR385, CR386)
Size 4 and above

Combination starters
Size 0-3 with Mag-Break Protector
Size 3 with:
—Circuit Breaker greater than 100 amps, or
—Fuse Clips greater than 100 amps, or
Size 4 and above with any circuit breakers, circuit protector or fuse clips.

Control Circuit fuses (Modification 9) must be added to the enclosed starter or contactor pricing.

All CPTs will be supplied with primary fuses. CPTs without primary fuses are no longer available.

When control circuit fuses are not factory supplied, customer provided wiring or branch circuit protection sizing to these contactors and starters may still require that the customer/installer add the fusing in the field. It will be the customer/installer's responsibility to ensure code compliance under these conditions.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Section 1

CR306, CR307, CR308, CR309, CR310, CR311, CR387, CR390, CR407, CR408, CR410, CR411, CR487, CR490 Magnetic Starters

Factory-Installed Modifications

Starter Modifications—Factory Installed

The general information at the top of page 1-124 regarding factory-installed modifications, also applies to those listed in the table below.

| Combination Type Starters | Item No. | Modifications | Enclosure Type | Starter NEMA Size | | | | | | |
|---|----------|-----------------------|----------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 |
| | | | | List Price Addition, GO-10G | | | | | | |
| CR309 Two-Speed with Nonfusible or Fusible Switch CR311 CR411 | 37 | Nonfusible | 1 | 1 | \$564.00 | \$564.00 | \$720.00 | \$912.00 | \$1260.00 | \$2256.00 |
| | | | 3R, 12 | 1 | \$576.00 | \$576.00 | \$768.00 | \$996.00 | \$2028.00 | \$2496.00 |
| | | | 4/4X | 1 | \$924.00 | \$924.00 | \$1176.00 | \$1848.00 | \$2244.00 | \$3240.00 |
| | 38 | Fusible 30A 250-600V | 1 | 1 | \$660.00 | \$660.00 | — | — | — | — |
| | | | 3R, 12 | 1 | \$672.00 | \$672.00 | — | — | — | — |
| | | | 4/4X | 1 | \$1020.00 | \$1020.00 | — | — | — | — |
| | 39 | Fusible 60A 250-600V | 1 | — | — | \$660.00 | \$768.00 | — | — | — |
| | | | 3R, 12 | — | — | \$672.00 | \$816.00 | — | — | — |
| | | | 4/4X | — | — | \$1020.00 | \$1224.00 | — | — | — |
| | 40 | Fusible 100A 250-600V | 1 | — | — | — | \$894.00 | \$984.00 | — | — |
| | | | 3R, 12 | — | — | — | \$942.00 | \$1068.00 | — | — |
| | | | 4/4X | — | — | — | \$1350.00 | \$1920.00 | — | — |
| | 41 | Fusible 200A 250-600V | 1 | — | — | — | — | \$1224.00 | \$1524.00 | — |
| | | | 3R, 12 | — | — | — | — | \$1308.00 | \$2244.00 | — |
| | | | 4/4X | — | — | — | — | \$2160.00 | \$2460.00 | — |
| | 42 | Fusible 400A 250-600V | 1 | — | — | — | — | — | \$2172.00 | \$2472.00 |
| | | | 3R, 12 | — | — | — | — | — | \$2568.00 | \$2712.00 |
| | | | 4/4X | — | — | — | — | — | \$3108.00 | \$3456.00 |
| CR309 Two-Speed with Circuit Breaker CR310, CR410 | 43 | Circuit Breaker | 1 | 1 | \$846.00 | \$846.00 | \$1002.00 | \$1122.00 | \$2052.00 | \$3990.00 |
| | | | 3R, 12 | 1 | \$846.00 | \$846.00 | \$1080.00 | \$1206.00 | \$2772.00 | \$4566.00 |
| | | | 4/4X | 1 | \$1206.00 | \$1206.00 | \$1488.00 | \$2058.00 | \$2988.00 | \$4974.00 |

¹ Not available in NEMA Size 00. Use Size 0 starter and modification.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR306, CR307, CR308, CR310 Magnetic Starters

Section 1

Factory-Installed Modifications for Magnetic Starters
NEMA Sizes 00-9

Factory-Installed Auxiliary Contacts

The final letter of the Product Number denotes extra auxiliary contacts (sometimes referred to as auxiliary interlocks). Order the desired extra auxiliary contacts, factory installed on the starter, by replacing the final letter of the Product Number with a letter from the first column of the auxiliary contact table.

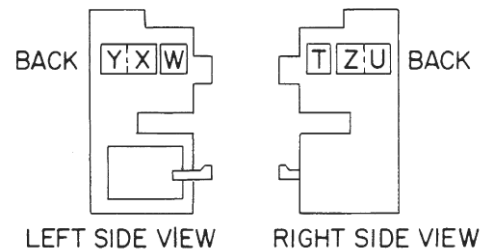
Example: CR307G104BAB is a Size 5 starter with one extra auxiliary contact, normally open.

If a 306 Product Number has no 3-letter suffix, first add an "AAA" suffix, and then substitute a letter from first column of the auxiliary contact table.

Example: CR306C022 becomes CR306C022AAD for a Size 1 starter with one extra NO and one extra NC auxiliary contact.

Extra Auxiliary Contact Table

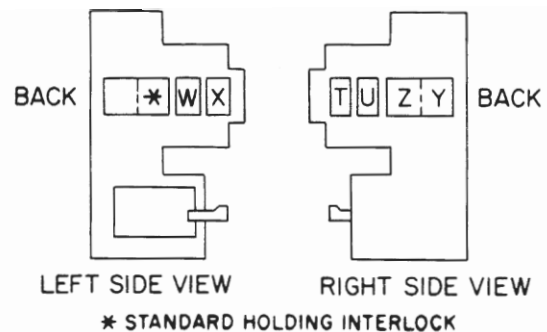
| Final Suffix Letter of Product No. on Starter | Contact Location 4 Contacts Max. | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| | W | X | Y | T | Z | U |
| A or None | | | | | | |
| B | | + | | | | |
| C | | | ⊗ | | | |
| D | | + | ⊗ | | | |
| E | + | + | | | | |
| F | ⊗ | | ⊗ | | | |
| G | + | + | ⊗ | | | |
| H | ⊗ | + | ⊗ | | | |
| J | + | + | | | + | |
| K | ⊗ | | ⊗ | | | ⊗ |
| L | + | + | | + | + | |
| M | ⊗ | | ⊗ | ⊗ | | ⊗ |
| N | | + | ⊗ | | + | ⊗ |
| P | + | + | ⊗ | | + | |
| R | ⊗ | + | ⊗ | | | ⊗ |



NEMA Sizes 0 and 1 Single-Speed, Nonreversing, 2- and 3-Pole Starters

Extra Auxiliary Contact Table

| Final Suffix Letter of Product No. on Starter | Contact Location 5 Contacts Max. | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| | W | X | Y | Z | T | U |
| A or None | | | | | | |
| B | + | | | | | |
| C | ⊗ | | | | | |
| D | | | ⊗ | + | | |
| E | + | + | | | | |
| F | ⊗ | ⊗ | | | | |
| G | + | | ⊗ | + | | |
| H | ⊗ | | ⊗ | + | | |
| J | + | + | | + | | |
| K | ⊗ | ⊗ | ⊗ | | | |
| L | + | + | | + | | + |
| M | ⊗ | ⊗ | ⊗ | | | ⊗ |
| N | ⊗ | + | ⊗ | + | | |
| P | + | + | ⊗ | + | | |
| R | ⊗ | ⊗ | ⊗ | + | | |
| S | ⊗ | + | ⊗ | + | | + |
| T | ⊗ | + | ⊗ | + | | ⊗ |
| U | + | + | ⊗ | + | | + |
| W | ⊗ | ⊗ | ⊗ | + | | ⊗ |
| X | + | + | | + | + | + |
| Y | ⊗ | ⊗ | ⊗ | | ⊗ | ⊗ |



* STANDARD HOLDING INTERLOCK

NEMA Sizes 2, 3 and 4, Single-Speed Nonreversing Starters



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

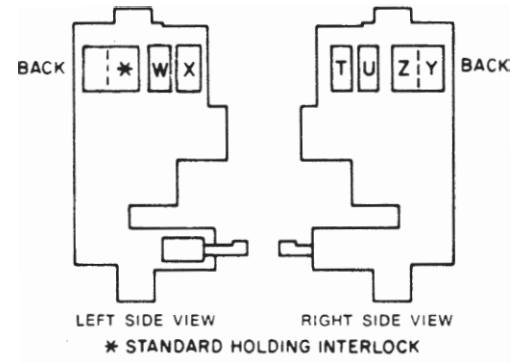
CR306, CR307, CR308, CR310 Magnetic Starters

Factory-Installed Modifications for Magnetic Starters
NEMA Sizes 0-9

Section 1

Extra Auxiliary Contact Table

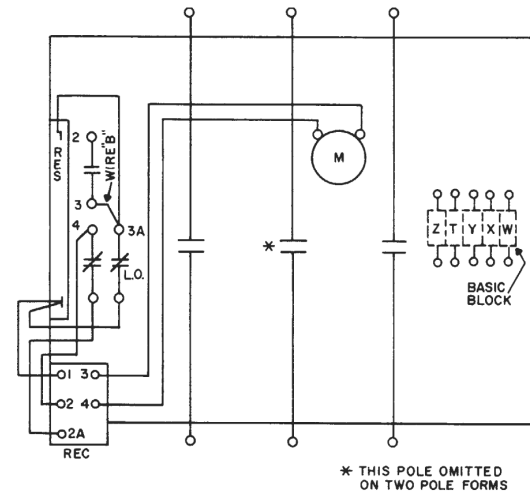
| Final Suffix Letter of Product No. on Starter | Contact Location 5 Contacts Max. | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| | W | X | Y | Z | T | U |
| A or None | | | | | | |
| B | † | | | | | |
| C | ✖ | | | | | |
| D | | | ✖ | † | | |
| E | † | † | | | | |
| F | ✖ | ✖ | | | | |
| G | † | | ✖ | † | | |
| H | ✖ | | ✖ | † | | |
| J | † | † | | † | | |
| K | ✖ | ✖ | ✖ | | | |
| L | † | † | | † | | † |
| M | ✖ | ✖ | ✖ | | | ✖ |
| N | ✖ | † | ✖ | † | | |
| P | † | † | ✖ | † | | |
| R | ✖ | ✖ | ✖ | † | | |
| S | ✖ | † | ✖ | † | | † |
| T | ✖ | † | ✖ | † | | ✖ |
| U | † | † | ✖ | † | | † |
| W | ✖ | ✖ | ✖ | † | | ✖ |
| X | † | † | | † | † | † |
| Y | ✖ | ✖ | ✖ | | ✖ | ✖ |



NEMA Sizes 5 and 6 Single-Speed, Nonreversing, Starters

Extra Auxiliary Contact Table

| Final Suffix Letter of Product No. on Starter | Contact Location 5 Contacts Max. | | | | |
|---|-------------------------------------|---|---|---|---|
| | W | X | Y | T | Z |
| A or None | | | | | |
| B | † | | | | |
| C | ✖ | | | | |
| D | ✖ | † | | | |
| E | † | † | | | |
| F | ✖ | ✖ | | | |
| G | † | ✖ | † | | |
| H | ✖ | ✖ | † | | |
| J | † | † | † | | |
| K | ✖ | ✖ | ✖ | | |
| L | † | † | † | † | |
| M | ✖ | ✖ | ✖ | ✖ | |
| N | ✖ | † | ✖ | † | |
| P | † | † | ✖ | † | |
| R | ✖ | ✖ | ✖ | † | |
| S | ✖ | † | ✖ | † | † |
| T | ✖ | † | ✖ | † | ✖ |
| U | † | † | ✖ | † | † |
| W | ✖ | ✖ | ✖ | † | ✖ |
| X | † | † | † | † | † |
| Y | ✖ | ✖ | ✖ | ✖ | ✖ |



Typical connection diagram
NEMA Sizes 7-9



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic

CR305X, CR385X Auxiliary Contact Kits

For Field Installation on Magnetic Starters

NEMA Sizes 0-7

Section 1

Application

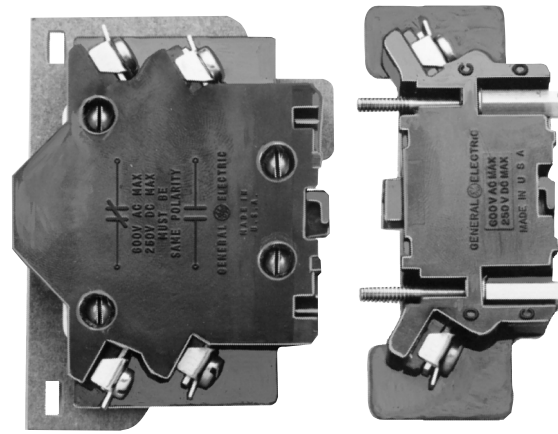
Auxiliary contacts can add to the versatility of magnetic starters by providing additional control circuits to do a variety of jobs without adding to the width of the starter.

Kits make it easy to add contacts to control accessory equipment such as indicating lights; to control sequencing of other motor starters; and in conjunction with a standard reversing starter and plugging switch, to plug-stop motors. Auxiliary contacts can be added to all across-the-line magnetic starters, combination magnetic starters, reversing and multi-speed starters.

Each auxiliary contact is rated 10 Amperes ac, resistive load, NEMA "A600," and is suitable for either right or left side mounting. An insulating shield is also provided between each auxiliary contact unit and the starter. Auxiliary contacts are furnished in the basic block design or as an adder block.

Each contact is marked NO or NC on the block and is not convertible.

Logic reed contacts suitable for low energy level circuits are also available. These are designed for applications on low-voltage control circuits (24 Volts and below), such as inputs to computers and programmable starters.



Basic Block and Adder Block

Product Number Selection Instructions

- Order by quantity and complete product number.
Example: Three CR305X300A at **\$36.00 each, GO-10G.**

Reference Publications

| Instructions | |
|-----------------|--------------------|
| NEMA Size | Publication Number |
| 0, 1 | GEH-4758 |
| 2 | GEH-4759 |
| 3, 4 | GEH-4760 |
| 5, 6 | GEH-4761 |
| 7-9 | GEH-5109 |
| 0, 1 Logic Reed | GEH-5178 |
| 2 Logic Reed | GEH-5185 |
| 3, 4 Logic Reed | GEH-5186 |
| 5, 6 Logic Reed | GEH-5187 |

Field-Installed Modifications for Magnetic Starters - Contents

| | |
|---|-------|
| Auxiliary Contact Kits (CR305X, CR385X) | 1-132 |
| Modification Kits | 1-135 |
| Fuse-Clip Kits (CR308X) | 1-139 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR305X, CR385X Auxiliary Contact Kits

Section 1

Field-Installed Modification Kits
For 300-Line Starters

Auxiliary Contact Kits - Basic Blocks

| NEMA Size | Contact Configuration | Block Design | Product Number | List Price GO-10G |
|-----------|-----------------------|--------------|----------------|----------------------|
| 0,1 | 1NO | Basic | CR305X100A | \$36.00 |
| 0,1 | 1NC | Basic | CR305X100B | \$36.00 |
| 0,1 | 1NO-1NC | Basic | CR305X100C | \$48.00 |
| 2 | 1NO | Basic | CR305X200A | \$36.00 |
| 2 | 1NC | Basic | CR305X200B | \$36.00 |
| 2 | 1NO-1NC | Basic | CR305X200C | \$48.00 |
| 3,4 | 1NO | Basic | CR305X300A | \$36.00 |
| 3,4 | 1NC | Basic | CR305X300B | \$36.00 |
| 3,4 | 1NO-1NC | Basic | CR305X300C | \$48.00 |
| 5,6 | 1NO | Basic | CR305X500A | \$36.00 |
| 5,6 | 1NC | Basic | CR305X500B | \$36.00 |
| 5,6 | 1NO-1NC | Basic | CR305X500C | \$48.00 |
| 7 | 1NO | Basic | CR385X600A | \$198.00 |
| 7 | 1NC | Basic | CR385X600B | \$198.00 |
| 7 | 1NO-1NC | Basic | CR385X600C | \$396.00 |
| 8-9 | 1NO | Basic | CR385X800A | \$198.00 |
| 8-9 | 1NC | Basic | CR385X800B | \$198.00 |
| 8-9 | 1NO-1NC | Basic | CR385X800C | \$396.00 |

Auxiliary Contact Kits - Adder Blocks

| NEMA Size | Contact Configuration | Block Design | Product Number | List Price GO-10G |
|-----------|-----------------------|--------------|-------------------------|----------------------|
| 0-9 | 1NO | Adder | CR305X100D ¹ | \$36.00 |
| 0-9 | 1NC | Adder | CR305X100E ¹ | \$36.00 |

Logic Reed Switch Auxiliary Contacts²

| NEMA Size | Contact Configuration | Product Number | List Price GO-10G |
|-----------|-----------------------|----------------|----------------------|
| 00, 0, 1 | 1NO-0NC | CR305X100RA | \$45.00 |
| 00, 0, 1 | 0NO-1NC | CR305X100RB | \$45.00 |
| 00, 0, 1 | 1NO-1NC | CR305X100RC | \$72.00 |
| 2 | 1NO-0NC | CR305X200RA | \$45.00 |
| 2 | 0NO-1NC | CR305X200RB | \$45.00 |
| 2 | 1NO-1NC | CR305X200RC | \$72.00 |
| 3, 4 | 1NO-0NC | CR305X300RA | \$45.00 |
| 3, 4 | 0NO-1NC | CR305X300RB | \$45.00 |
| 3, 4 | 1NO-1NC | CR305X300RC | \$72.00 |
| 5, 6 | 1NO-0NC | CR305X500RA | \$45.00 |
| 5, 6 | 0NO-1NC | CR305X500RB | \$45.00 |
| 5, 6 | 1NO-1NC | CR305X500RC | \$72.00 |

Contact Ratings - Basic Blocks

High Fidelity Contact Basic Block

120 VAC maximum .15 A maximum, 8 VA maximum resistive.
30 VDC maximum .15 A maximum, 4.5 VA maximum resistive.

Standard Block

| AC Volts | Continuous Current Amperes | Inrush Current Amperes | DC Volts | Continuous Current Amperes | Inrush Current Amperes |
|----------|-------------------------------|---------------------------|----------|-------------------------------|---------------------------|
| 115 | 6.0 | 60 | 125 | 1.1 | — |
| 230 | 3.0 | 30 | 250 | 0.5 | — |
| 460 | 1.5 | 15 | — | — | — |
| 575 | 1.2 | 12 | — | — | — |

¹First adder block must be mounted to a basic block. A second adder block can be added to the first adder block on size 2 through size 9 starters.

Four extra auxiliary contacts (not blocks) is the maximum that can be added to either a NEMA size 0 or 1 starter while five is the maximum extra auxiliary contacts that can be added to NEMA Size 2 through 6 devices.

²CR305X logic reed switch auxiliary contacts may be ordered as a factory-installed modification. Order by description. For factory-installed modification, add **\$75.00, GO-10G**, per circuit to price of starter.



NEMA Full Voltage Power Devices

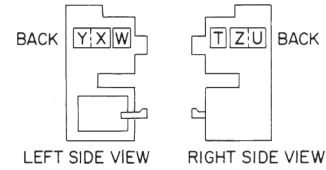
NEMA Rated Full Voltage Starters - Magnetic

CR305X Auxiliary Contact Kits

For Field Installation on Magnetic Starters (300-Line)
Selection and Installation Guides

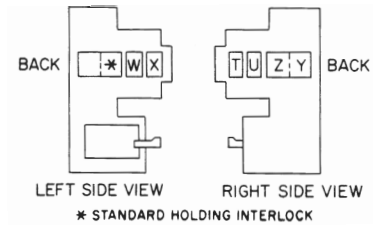
Section 1

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|--------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| W | X | Y | T | Z | U | X100A | X100B | X100C ¹ | X100D | X100E |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| | + | | | | | 1 | | | | |
| | + | ✖ | | | | | 1 | | | |
| | + | ✖ | | | | | | 1 | | |
| + | + | | | | | 1 | | | 1 | |
| ✖ | | ✖ | | | | | 1 | | | 1 |
| + | + | ✖ | | | | | | 1 | 1 | |
| + | + | ✖ | | | | | | 1 | | 1 |
| + | + | ✖ | | | | 2 | | | 1 | |
| ✖ | | ✖ | | | + | | 2 | | | |
| + | + | ✖ | | + | + | 2 | | | 2 | |
| ✖ | | ✖ | | + | ✖ | | 2 | | | 2 |
| + | + | ✖ | | + | ✖ | 1 | | 2 | | |
| ✖ | + | ✖ | | + | ✖ | | 1 | 1 | 1 | |
| ✖ | + | ✖ | | + | ✖ | | 1 | 1 | | 1 |



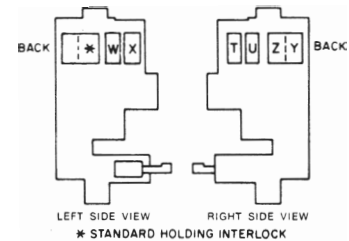
NEMA Sizes 0 and 1, Single-Speed, Nonreversing, 2- and 3-Pole and Starters (side views)

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|--------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| | | | | | | For Size 2 | | | | |
| W | X | Y | Z | T | U | X200A | X200B | X200C ¹ | X100D | X100E |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| | + | | | | | | | | 1 | |
| ✖ | | | | | | | | | | 1 |
| | + | | ✖ | | | | | 1 | | |
| + | + | | | | | | | | 2 | |
| ✖ | ✖ | | | | | | | 1 | | 2 |
| + | | ✖ | | | | | | 1 | 1 | |
| + | + | | ✖ | | | 1 | | | 2 | |
| ✖ | | ✖ | | | | | 1 | | | 2 |
| + | + | | ✖ | | + | 1 | | | 3 | |
| ✖ | | ✖ | | | ✖ | | 1 | | | 3 |
| + | + | ✖ | | | | | | 1 | 1 | 1 |
| + | + | ✖ | | | | | | 1 | 2 | |
| ✖ | | ✖ | | | + | | | 1 | 2 | 2 |
| ✖ | + | ✖ | | | + | | | 1 | 2 | 1 |
| + | + | ✖ | | | ✖ | | | 1 | 1 | 2 |
| + | + | ✖ | | | ✖ | | | 1 | 3 | |
| + | + | ✖ | | | ✖ | | | 1 | 3 | 3 |
| + | + | ✖ | | + | + | 1 | | | 4 | |
| ✖ | ✖ | ✖ | | ✖ | ✖ | | 1 | | | 4 |



NEMA Sizes 2, 3 and 4, Single-Speed, Nonreversing, Starters (side views)

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|--------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| W | X | Y | Z | T | U | X500A | X500B | X500C ¹ | X100D | X100E |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| | + | | | | | | | | 1 | |
| ✖ | | | | | | | | | | 1 |
| | + | | ✖ | | | | | 1 | | |
| + | + | | | | | | | | 2 | |
| ✖ | ✖ | | | | | | | 1 | | 2 |
| + | | ✖ | | | | | | 1 | 1 | |
| + | + | | ✖ | | | 1 | | | 2 | |
| ✖ | | ✖ | | | | | 1 | | | 2 |
| + | + | ✖ | | | + | 1 | | | 3 | |
| ✖ | | ✖ | | | ✖ | | 1 | | | 3 |
| + | + | ✖ | | | | | | 1 | 1 | 1 |
| + | + | ✖ | | | | | | 1 | 2 | |
| ✖ | | ✖ | | | + | | | 1 | 2 | 2 |
| ✖ | + | ✖ | | | + | | | 1 | 2 | 1 |
| + | + | ✖ | | | ✖ | | | 1 | 1 | 2 |
| + | + | ✖ | | | ✖ | | | 1 | 3 | |
| + | + | ✖ | | | ✖ | | | 1 | 3 | 3 |
| + | + | ✖ | | + | + | 1 | | | 4 | |
| ✖ | ✖ | ✖ | | ✖ | ✖ | | 1 | | | 4 |



NEMA Sizes 5 and 6 Single-Speed, Nonreversing, Starters (side views)

¹Both NO and NC contacts must be wired for same polarity



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic Field-Installed Modification Kits

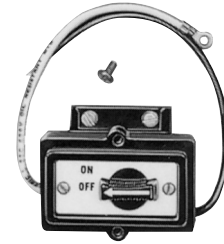
Section 1

For 300-Line Starters
NEMA Sizes 00-6

Pilot Device Modification Kits

The push button and selector switch kits listed here are supplied complete with the necessary components, hardware and written instructions for easy field installation on Type 1 enclosed starters—306.

| Kit Type | NEMA Size | Product Number | List Price GO-10G |
|---|-----------|----------------|----------------------|
| Momentary Contact Start-Stop Push Button Kits | 00, 0, 1 | CR305X120N | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 2 | CR305X220N | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 3, 4 | CR305X320B | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 5 | CR305X520B | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 00, 0, 1 | CR305X130N | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 2 | CR305X230N | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 3, 4 | CR305X330B | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 5 | CR305X530B | \$48.00 |
| Off-On Selector Switch Kits | 00, 0, 1 | CR305X130P | \$48.00 |
| Off-On Selector Switch Kits | 2 | CR305X230D | \$48.00 |
| Off-On Selector Switch Kits | 3, 4 | CR305X330D | \$48.00 |
| Off-On Selector Switch Kits | 5 | CR305X530D | \$48.00 |



Selector Switch Kits

Fifth-Pole Kits

To be installed on NEMA Size 0, 1, and 2 magnetic four-pole contactors and starters. Permits the addition of a fifth pole with the same rating as the main poles.

| NEMA Size | Mounting Position | Product Number | List Price GO-10G |
|------------------------|-------------------|----------------|----------------------|
| 0, 1 | Right | CR305X111B | \$66.00 |
| 2 (add to 4-pole form) | Left | CR305X211B | \$120.00 |



START-STOP Push Button kits

Adapter Mounting Plate

For mounting a 300-line magnetic starter in place of a competitive unit.

Adapter plate good for mounting in place of the following:

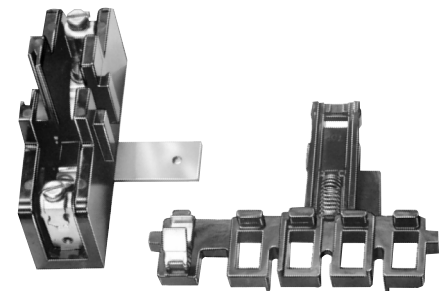
A-B 709. Size 1: W B200. Sizes 00-2: Furnas Sizes 00-1: GTE TM.

Sizes 00-2: Sq. D 8536, Sizes 00-2.

Not needed for C-H—same as GE.

Note: GTE now known as Joslyn Clark.

| NEMA Size | Product Number | List Price GO-10G |
|-----------|----------------|----------------------|
| 00-1 | CR306X191A | \$9.00 |



Fifth-Pole Kit

Indicating Light Kits (Red)

To be installed on contactor and extend through knockout in cover of CR305-306 and devices in Type 1 enclosures. Each kit has three resistors allowing light to be used with all voltages of 110 through 600. Uses NE-45 bulb. Can be used with push button or selector switch kit.

| NEMA Size | Product Number | List Price GO-10G |
|------------|----------------|----------------------|
| 00, 0, 1 | CR305X150N | \$90.00 |
| 2 | CR305X250N | \$90.00 |
| 3, 4 | CR305X350B | \$90.00 |
| 5 | CR305X550B | \$90.00 |
| NE-45 Bulb | CR2940U200BL | \$9.24 ¹ |

¹NE-45 bulb is GO-10P8.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic Field-Installed Modification Kits

For 300-Line Starters
NEMA Sizes 00-6

Section 1

Surge Suppression Kit

To be connected in parallel with operating coil where the demands of solid-state circuitry necessitate prevention of undesirable reactions in logic circuits. For use on 120 Volt ac only.

| NEMA Size | Product Number | List Price GO-10G |
|-----------|----------------|----------------------|
| 0-6 | CR305X146C | \$33.90 |



Surge Suppression Kit

Control Circuit Fuse Kits

Control circuit fuse kits are designed for installation on NEMA Size 00-5 across-the-line contactors and starters. They install on the side of the contactor and provide fuse protection for control circuit wiring.

These kits incorporate one or two 10 Ampere 600 Volt fuse holders for use with KTK or KTK-R fuses (or equivalent). The fuses are easily accessible with the starter enclosure covers open, and each kit contains instructions and hardware for easy installation. Instructions: GEH-4822.

| NEMA Size | No. of Fuses | Fuse Type | Product Number | List Price GO-10G |
|-----------|--------------|-----------|----------------|----------------------|
| 00-1 | 1 | KTK | CR305X141A | \$24.00 |
| 00-1 | 2 | KTK | CR305X141B | \$36.00 |
| 2 | 1 | KTK | CR305X241A | \$24.00 |
| 2 | 2 | KTK | CR305X241B | \$36.00 |
| 3, 4 | 1 | KTK | CR305X341A | \$24.00 |
| 3, 4 | 2 | KTK | CR305X341B | \$36.00 |
| 5, 6 | 1 | KTK | CR305X541A | \$24.00 |
| 5, 6 | 2 | KTK | CR305X541B | \$36.00 |
| 00-1 | 1 | KTK-R | CR305X141C | \$24.00 |
| 00-1 | 2 | KTK-R | CR305X141D | \$36.00 |
| 2 | 1 | KTK-R | CR305X241C | \$24.00 |
| 2 | 2 | KTK-R | CR305X241D | \$36.00 |
| 3, 4 | 1 | KTK-R | CR305X341C | \$24.00 |
| 3, 4 | 2 | KTK-R | CR305X341D | \$36.00 |
| 5, 6 | 1 | KTK-R | CR305X541C | \$24.00 |
| 5, 6 | 2 | KTK-R | CR305X541D | \$36.00 |

Reference Publications

Instructions, Indicating Light Kits for Type 1 Enclosure

| NEMA Size | Publication Number |
|-----------|--------------------|
| 00, 0, 1 | GEH-4767 |
| 2 | GEH-4768 |
| 3, 4 | GEH-4770 |

Instructions, Push Button and Selector Switch Kits for Type 1 Enclosure

| NEMA Size | Publication Number |
|-----------|--------------------|
| 00, 0, 1 | GEH-4763 |
| 2 | GEH-4764 |
| 3, 4 | GEH-4765 |
| 5 | GEH-4766 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic Field-Installed Modification Kits

For 300-Line Starters

Section 1

Combination Starter Transformer Kit

To be installed in CR307, CR308, and CR387 Size 0-6 combination starter. It supplies low-voltage control for such a device. Note: Control Circuit fuse kits from page 1-136 may be used, but refer to footnote 3 on page 1-126 for information regarding sizing of fuses to meet National Electrical Code (NEC) requirements. Secondary fuse is included in price.

Standard Capacity

| VA Capacity | NEMA Size | Product Number | List Price GO-10G1 |
|-------------|-----------|--------------------------|-----------------------|
| 50 | 0, 1 | CR308XT1**A | \$108.00 |
| 100 | 2 | CR308XT2**A | \$132.00 |
| 250 | 3 | CR308XT3**A | \$198.00 |
| 250 | 4 | CR308XT4**A | \$246.00 |
| | 5 | CR308XT5**A ¹ | \$282.00 |

Extra Capacity (100 Watts)

| VA Capacity | NEMA Size | Product Number | List Price GO-10G1 |
|-------------|-----------|--------------------------|-----------------------|
| 150 | 0, 1 | CR308XT1**B | \$180.00 |
| 150 | 2 | CR308XT2**B | \$204.00 |
| 300 | 3 | CR308XT3**B | \$270.00 |
| 300 | 4 | CR308XT4**B | \$318.00 |
| | 5 | CR308XT5**B ² | \$354.00 |

**Voltage and Frequency Suffixes (60 Hz)

Suffix

| | |
|----|---|
| 04 | 220-230-240/440-460-480-volt dual primary reconnectable, 110-115-120 volt secondary |
| 05 | 550-575-600-volt primary, 110-115-120 volt secondary |
| 23 | 200-208-volt primary, 115-120 volt secondary |

Control Amplifier

The GE CR305X control amplifier is suitable for applications with low level 24 Volt dc outputs. It allows the low level signals from a programmable control, microprocessor, or photoelectric cell to operate GE's 300-Line starters while their control coils operate at the line voltage. The control amplifier is UL listed and CSA Certified, and forms are available for NEMA Sizes 00 through 5.

| Operation Type | NEMA Size | Product Number | List Price GO-10G |
|----------------|---------------------|-------------------------|----------------------|
| Nonreversing | 00, 0, & 1 | CR305X112A | \$54.00 |
| Nonreversing | 2 | CR305X212A | \$54.00 |
| Nonreversing | 3 & 4 | CR305X312A | \$54.00 |
| Reversing | 00, 0, 1, 2, 3, & 4 | CR305X112P ³ | \$54.00 |

Space Heater Kits

CR305X701 and CR305X702 space heater kits (50 Watts, except size 5 and 6 at 100 Watts) come complete with one NC auxiliary contact, necessary hardware and ready for installation on any NEMA Size 0 through 6 enclosed starter, CR306, CR307, CR308, CR309, CR310, and CR311, or equivalent 200-Line devices.

| NEMA Size | Operating Voltage | Product Number | List Price GO-10G |
|-----------|-------------------|-------------------------|----------------------|
| 0-1 | 115 | CR305X701D ⁴ | \$120.00 |
| 0-1 | 230 | CR305X701A | \$120.00 |
| 0-1 | 460 | CR305X701B | \$120.00 |
| 0-1 | 600 | CR305X701C | \$120.00 |
| 2, 3, 4 | 115 | CR305X702D | \$120.00 |
| 2, 3, 4 | 230 | CR305X702A | \$120.00 |
| 2, 3, 4 | 460 | CR305X702B | \$120.00 |
| 2, 3, 4 | 600 | CR305X702C | \$120.00 |
| 5, 6 | 115 | CR305X705D ⁴ | \$120.00 |
| 5, 6 | 230 | CR305X705A | \$120.00 |
| 5, 6 | 460 | CR305X705B | \$120.00 |
| 5, 6 | 600 | CR305X705C | \$120.00 |

¹Consists of a 50 VA transformer and a relay. Use primary voltage for starter/contactors coil.

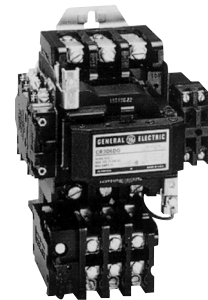
²Consists of a 150 VA transformer and a relay. Use primary voltage for starter/contactors coil.

³A quantity of two panel mount CR305X112P is required for use with reversing starters.

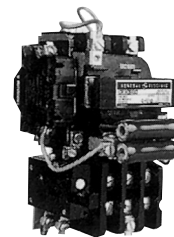
⁴If connected to control circuit transformer, 115-volt heater requires an extra-capacity transformer. Contact nearest GE Representative for additional information.



Transformer Kit



Typical Size 2 Starter with CR305X Control Amplifier Mounted on Right



Space Heater Installed on Typical NEMA Size 1 Starter



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic Field-Installed Modification Kits

For 300-Line Starters

Section 1

Mechanical Interlock Kits

To be installed on open CR306 or CR386 starters unless otherwise noted. If kit will not interlock starter you need, order a mechanically interlocked starter assembled complete at the factory. Kits include all parts to mechanically interlock 2 devices.

| NEMA Size | Mounting Position | Baseplate | Product Number | List Price GO-10G |
|-----------|-------------------|-----------|-------------------------|----------------------|
| 0-1 | Horizontal | No | CR309X100B | \$42.00 |
| 2 | Horizontal | No | CR309X200D | \$96.00 |
| 3-4 | Horizontal | No | CR309X300B | \$180.00 |
| 5 | Horizontal | Yes | CR309X501K | \$240.00 |
| 0-1 | Vertical | Yes | CR309X102B ⁵ | \$96.00 |
| 2 | Vertical | Yes | CR309X202B ⁵ | \$180.00 |
| 3-4 | Vertical | Yes | CR309X302B ⁵ | \$240.00 |
| 5 | Vertical | No | CR309X502K | \$240.00 |
| 6 | Vertical | No | CR309X602B ⁶ | \$450.00 |
| 7 | Vertical | No | CR389X100C | \$450.00 |
| 8-9 | Vertical | No | CR389X100H | \$450.00 |

Reference Publications

Instructions:

| | |
|--------------------------|----------|
| Space heater kits | GEH-4772 |
| Control transformer kits | GEH-4842 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308X Fuse-Clip Kits for Starters

Adapter Plate for Class J Fuses
NEMA Sizes 00-5

Section 1

Application - Fuse Clip Kits

These compact kits contain all necessary parts to convert a fusible starter to a different rating; to change a nonfusible starter over to the desired fusible rating; or to change a fusible starter to a nonfusible starter. Each kit includes six fuse-clip assemblies with mounting hardware.

Detailed instructions are furnished with every packaged unit to attain simplified conversion in the field. A screwdriver is the only tool required to make the changeover.

Product Number Selection Instructions

1. Order by complete Product Number.
Example: CR308X112B at **\$15.00, GO-10G1**.
2. Where Product Number is not available, order by complete description, using a listed Product Number as reference.
3. Motor full-load current should not exceed ampere rating of starter, as listed on page 1-4.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR308X Fuse-Clip Kits for Starters

For 300-Line Starters

Section 1

Fuse-Clip Kits Class NEC Fuses

| NEMA Size | Single Element NEC Fuse Max. | | Single Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Disconnect Switch Continuous Amperage Rating | Fuse Clip Rating @ 250 Volt Max. | Fuse Clip Rating @ 600 Volt Max. | Product Number | List Price GO-10G1 |
|-----------|------------------------------|------------|------------------------------|------------|----------------------------|------------|----------------------------|---|----------------------------|---|--|----------------------------------|----------------------------------|---------------------------|--------------------|
| | @ 200-208V | @ 230-240V | @ 460-480V | @ 575-600V | @ 200-208V | @ 230-240V | @ 460-600V | | | | | | | | |
| 0, | 3 | 3 | 5 | 5 | - | - | - | - | - | - | 30 | Non-fuse -straps | Non-fuse -straps | CR308X110A | \$6.80 |
| 1 | 7 1/2 | 7 1/2 | 10 | 10 | - | - | - | - | - | - | - | - | - | - | - |
| 0, | 3 | 3 | - | - | 3 | 3 | - | - | - | - | 30 | 30 | - | CR308X111B ¹ | \$15.00 |
| 1 | - | - | - | - | 7 1/2 | 7 1/2 | - | - | - | - | - | - | - | - | - |
| 0, | - | - | 5 | 5 | - | - | 5 | - | - | - | 30 | - | 30 | CR308X112B | \$15.00 |
| 1 | - | - | 7 1/2 | 7 1/2 | - | - | 10 | - | - | - | - | - | - | - | - |
| 2 | 10 | 15 | 25 | 25 | - | - | - | - | - | - | 60 | Non-fuse -straps | Non-fuse -straps | CR308X120A | \$7.80 |
| 1, | 7 1/2 | 7 1/2 | - | - | 7 1/2 | 7 1/2 | - | - | - | - | 30, | 60 | - | CR308X121C ¹ | \$15.00 |
| 2 | - | - | - | - | 10 | 15 | - | - | - | - | 60 | - | - | - | - |
| 1, | - | - | 10 | 10 | - | - | 25 | - | - | - | 30, | - | 60 | CR308X122C | \$21.00 |
| 2 | - | - | 15 | 20 | - | - | - | - | - | - | 60 | - | - | - | - |
| 3 | 25 | 30 | 50 | 50 | - | - | - | - | - | - | 100 | Non-fuse -straps | Non-fuse -straps | CR308X130A | \$13.80 |
| 2, | 10 | 15 | 25 | 25 | 25 | 15, | 50 | - | - | - | 60, | 100 | 100 | CR308X132D ^{1,2} | \$60.00 |
| 3 | - | - | 30 | 30 | - | 30 | - | - | - | - | 100 | - | - | - | - |
| 3 | 25 | 30 | 50 | 50 | 25 | 30 | - | - | - | - | 100 | 200 | 200 | CR308X132E ¹ | \$108.00 |
| 4 | 40 | 50 | 100 | 100 | - | - | - | - | - | - | 200 | Non-fuse -straps | Non-fuse -straps | CR308X140A | \$31.80 |
| 4 | - | - | 60 | 60 | 40 | 50 | 100 | - | - | - | 200 | 200 | 200 | CR308X142E ¹ | \$96.00 |
| 4 | 40 | 50 | 100 | 100 | - | - | - | - | - | - | 200 | 400 | 400 | CR308X142F | \$276.00 |

Fuse-Clip Kits Class R Fuses

| NEMA Size | Single Element NEC Fuse Max. | | Single Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Dual Element NEC Fuse Max. | | Disconnect Switch Continuous Amperage Rating | Fuse Clip Rating @ 250 Volt Max. | Fuse Clip Rating @ 600 Volt Max. | Product Number | List Price GO-10G1 |
|-----------|------------------------------|------------|------------------------------|------------|----------------------------|------------|----------------------------|---|----------------------------|---|--|----------------------------------|----------------------------------|-------------------------|--------------------|
| | @ 200-208V | @ 230-240V | @ 460-480V | @ 575-600V | @ 200-208V | @ 230-240V | @ 460-600V | | | | | | | | |
| 0 | 3 | 3 | - | - | 3 | 3 | - | - | - | - | 30 | 30 | - | CR308X611P ¹ | \$18.00 |
| 1 | - | - | - | - | 7 1/2 | 7 1/2 | - | - | - | - | - | - | - | CR308X611P ¹ | \$18.00 |
| 0 | - | - | 5 | 5 | - | - | 5 | - | - | - | 30 | - | 30 | CR308X612R | \$24.00 |
| 1 | - | - | 7 1/2 | 7 1/2 | - | - | 10 | - | - | - | - | - | - | CR308X612R | \$24.00 |
| 2 | - | - | - | - | 10 | 15 | - | - | - | - | 60 | 60 | - | CR308X621P ¹ | \$24.00 |
| 1 | 7 1/2 | 7 1/2 | - | - | 7 1/2 | 7 1/2 | - | - | - | - | 30 | 60 | - | CR308X621S ¹ | \$24.00 |
| 2 | - | - | 15 | 20 | - | - | 25 | - | - | - | 60 | - | 60 | CR308X622S | \$30.00 |
| 1 | - | - | 10 | 10 | - | - | - | - | - | - | 30 | - | 60 | CR308X622T | \$30.00 |
| 3 | - | - | - | - | 25 | 30 | - | - | - | - | 100 | 100 | - | CR308X631P ¹ | \$78.00 |
| 2 | 10 | 15 | - | - | 15 | 15 | - | - | - | - | 60 | 100 | - | CR308X631R ¹ | \$78.00 |
| 3 | - | - | 30 | 30 | - | - | 50 | - | - | - | 100 | - | 100 | CR308X632S ¹ | \$78.00 |
| 2 | - | - | 25 | 25 | - | - | - | - | - | - | 60 | - | 100 | CR308X632T ² | \$78.00 |
| 4 | - | - | - | - | 40 | 50 | - | - | - | - | 200 | 200 | - | CR308X641P | \$114.00 |
| 4 | - | - | 60 | 60 | - | - | 100 | - | - | - | 200 | - | 200 | CR308X642S ¹ | \$318.00 |

¹For ordinary starting duty only. Dual element or next larger size fuses are recommended for frequent starts or long accelerating time.

²Oversize enclosure required for NEMA Type 1 enclosure.

Adapter Plate for Class J Fuses

| Product Number | List Price GO-10G1 |
|----------------|--------------------|
| CR308X400A | \$10.50 |

Application - Adapter Plate for Class J Fuses

The CR308X400A is a universal-type adapter plate with hardware for converting to Class J fuses in combination-type magnetic motor starters, NEMA Sizes 0-3. Clips in standard NEMA Size 4 starters can be repositioned to accept Class J fuses without extra hardware. The adapter can be used to convert standard 600-Volt fusible starters by providing for easy relocation of the fuse clips in the starters. For most applications, clip sizes for Class J fuses are the same as those for ordinary NEC fuses.

The adapter can also be used to convert nonfusible starters by ordering the proper clips for Type QMR switches.

With Class J current-limiting fuses, the starters are rated at 100,000 Amperes rms symmetrical.

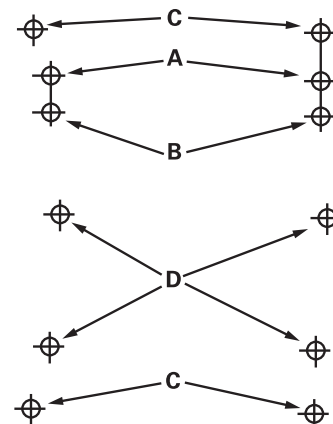
Mounting Hole Locations

A— 30-Ampere and 60-Ampere Class J fuse block location

B— 100-Ampere Class J fuse block location

C— Overfusing 100-Ampere to 200-Ampere Class J fuse block location

D— Mounting holes for installing adapter plate to enclosure box



Adapter Plate Mounting Hole Locations



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic Enclosures For NEMA Rated Full Voltage Starters (300-Line)

Application

To accommodate an occasional requirement for a starter in an enclosure, not stocked complete, it may be convenient and economical to stock enclosure kits for use with open starters; or even for conversion of a starter stocked in a different enclosure. UL listing can be maintained by use of these listed enclosures with listed starters, accessories, and modification kits.

Standard instructions, wiring-diagram labels and overload heater selection labels are included in each kit. Each enclosure includes an external reset for the starter overload relay, and provisions or plugged holes for optional addition of appropriate pilot devices. For example, push button(s), selector switch, and/or pilot light can be added, once the proper plug(s) is (are) removed. The external reset can be removed and replaced by use of a suitable hole plug kit.

Product Number Selection Instructions

- Order by complete product number.
Example: CR306X290B at **\$60.00, GO-10G.**

Reference Publications

| Instructions | | | | | |
|------------------------|----------|----------|----------|----------|----------|
| Base Product No. | Size 1 | Size 2 | Size 3 | Size 4 | Size 5 |
| CR306X, 309X, GEH-4879 | GEH-4880 | GEH-4881 | GEH-4882 | GEH-4883 | |
| CR307X, 308X, CR387X | GEH-4884 | GEH-4885 | GEH-4886 | GEH-4887 | GEH-4888 |
| CR310X, 311X, CR390X | GEH-4890 | GEH-4891 | GEH-4892 | GEH-4893 | — |

Enclosures for NEMA Rated Full Voltage Starters (300-Line) – Contents

| | |
|---|-------|
| Application Information and Selection Instructions..... | 1-141 |
| Selection Tables..... | 1-142 |
| Combination Starter Enclosure Kits..... | 1-143 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic Enclosures For NEMA Rated Full Voltage Starters (300-Line)

Section 1

Nonreversing

| Enclosure Type | NEMA Size | For Use With CR306 | Provision for Control Transformer | Width | Height | Depth | Outline Number | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------|--------|-------|----------------|-------------------------|--------------------|
| NEMA Type 1 | 00, 0, 1 | A, B, C | No | 6.00 | 10.00 | 4.63 | 55-178430P001 | CR306X190B | \$42.00 |
| NEMA Type 1 | 2 | D | No | 7.38 | 13.25 | 6.13 | 55-178434P001 | CR306X290B | \$86.00 |
| NEMA Type 1 | 3 | E | No | 8.75 | 20.25 | 7.31 | 55-200200 | CR306X390B | \$120.00 |
| NEMA Type 1 | 4 | F | No | 8.75 | 25.00 | 7.31 | 55-200202 | CR306X490B | \$252.00 |
| NEMA Type 1 | 5 | G | No | | | | | CR306X590B | \$462.00 |
| NEMA Type 1 | 00, 0, 1 | A, B, C | Yes | 10.00 | 10.00 | 4.63 | 55-178440P001 | CR306X190C | \$60.00 |
| NEMA Type 1 | 2 | D | Yes | 12.00 | 13.25 | 6.13 | 55-178441P001 | CR306X290C | \$96.00 |
| NEMA Type 1 | 3 | E | Yes | 18.00 | 21.62 | 8.62 | 55-200208 | CR306X390C | \$168.00 |
| NEMA Type 1 | 4 | F | Yes | | | | | CR306X490C | \$312.00 |
| NEMA Type 1 | 5 | G | Yes | | | | | CR306X590C | \$642.00 |
| NEMA Type 3R | 00, 0, 1 | A, B, C | No | 6.88 | 14.50 | 4.75 | 55-192653 | CR306X190K | \$96.00 |
| NEMA Type 3R | 2 | D | No | 7.84 | 16.50 | 6.50 | 55-192656 | CR306X290K | \$204.00 |
| NEMA Type 3R | 3 | E | Yes or No | 17.19 | 23.50 | 7.25 | 55-210105 | CR306X390K ¹ | \$288.00 |
| NEMA Type 3R | 4 | F | Yes or No | 17.19 | 27.50 | 7.25 | 55-210106 | CR306X490K ¹ | \$780.00 |
| NEMA Type 3R | 5 | G | Yes or No | | | | | CR306X590K ¹ | \$1794.00 |
| NEMA Type 3R | 00, 0, 1 | A, B, C | Yes | 10.38 | 14.50 | 4.75 | 55-205749 | CR306X190M | \$96.00 |
| NEMA Type 3R | 2 | D | Yes | 12.50 | 16.50 | 6.50 | 55-205749 | CR306X290M | \$204.00 |
| NEMA Type 12 | 00, 0, 1 | A, B, C | No | 6.25 | 14.25 | 4.75 | 55-184777 | CR306X190G | \$96.00 |
| NEMA Type 12 | 2 | D | No | 7.63 | 16.25 | 6.25 | 55-184781 | CR306X290G | \$204.00 |
| NEMA Type 12 | 3 | E | No | 10.00 | 27.25 | 7.25 | 55-200203 | CR306X390G | \$288.00 |
| NEMA Type 12 | 4 | F | No | | | | | CR306X490G | \$780.00 |
| NEMA Type 12 | 5 | G | No | | | | | CR306X590G | \$1794.00 |
| NEMA Type 12 | 00, 0, 1 | A, B, C | Yes | 10.25 | 14.25 | 4.75 | 55-188449 | CR306X190L | \$96.00 |
| NEMA Type 12 | 2 | D | Yes | 12.25 | 16.25 | 6.25 | 55-184780 | CR306X290L | \$204.00 |
| NEMA Type 12 | 3 | E | Yes | | | | | CR306X390L | \$288.00 |
| NEMA Type 12 | 4 | F | Yes | | | | | CR306X490L | \$780.00 |
| NEMA Type 12 | 5 | G | Yes | | | | | CR306X590L | \$1794.00 |
| NEMA Type 4/4X | 00, 0, 1 | A, B, C | Yes | | | | | CR306X190T | \$246.00 |
| NEMA Type 4/4X | 2 | D | Yes | | | | | CR306X290T | \$510.00 |
| NEMA Type 4/4X | 3 | E | Yes | | | | | CR306X390S | \$750.00 |
| NEMA Type 4/4X | 4 | F | Yes | | | | | CR306X490S | \$1314.00 |
| NEMA Type 4/4X | 5 | G | Yes | | | | | CR306X590S | \$1800.00 |

- NEMA Type 1: Includes provisions for 1 pilot device and 1 red neon light;
- NEMA Type 3R and 12 includes 2 plugged holes for heavy duty pilot device(s);
- NEMA Type 4/4X includes 3 plugged holes for heavy duty pilot devices.

Reversing

| Enclosure Type | NEMA Size | For Use With CR306 | Provision for Control Transformer | Width | Height | Depth | Outline Number | Product Number | List Price GO-10G |
|----------------|-----------|--------------------|-----------------------------------|-------|--------|-------|----------------|-------------------------|-------------------|
| NEMA Type 1 | 00, 0, 1 | A, B, C | Yes or No | | | | | CR309X190C ¹ | \$54.00 |
| NEMA Type 1 | 2 | D | Yes or No | | | | | CR309X290C ¹ | \$114.00 |
| NEMA Type 1 | 3 | E | No | | | | | CR309X390B | \$186.00 |
| NEMA Type 1 | 4 | F | No | | | | | CR309X490B | \$330.00 |
| NEMA Type 1 | 3 | E | Yes | | | | | CR309X390C | \$234.00 |
| NEMA Type 1 | 4 | F | Yes | | | | | CR309X490C | \$390.00 |
| NEMA Type 3R | 00, 0, 1 | A, B, C | Yes or No | 14.38 | 14.50 | 4.75 | 55-192655 | CR309X190J | \$162.00 |
| NEMA Type 3R | 2 | D | Yes or No | | | | | CR309X290J | \$294.00 |
| NEMA Type 3R | 3 | E | Yes or No | | | | | CR309X390J | \$582.00 |
| NEMA Type 3R | 4 | F | Yes or No | | | | | CR309X490J | \$942.00 |
| NEMA Type 12 | 00, 0, 1 | A, B, C | Yes or No | | | | | CR309X190L | \$162.00 |
| NEMA Type 12 | 2 | D | Yes or No | | | | | CR309X290L | \$294.00 |
| NEMA Type 12 | 3 | E | Yes or No | | | | | CR309X390L | \$582.00 |
| NEMA Type 12 | 4 | F | Yes or No | | | | | CR309X490L | \$942.00 |
| NEMA Type 4/4X | 00, 0, 1 | A, B, C | Yes or No | | | | | CR309X190S ² | \$450.00 |
| NEMA Type 4/4X | 2 | D | Yes or No | | | | | CR309X290S ² | \$750.00 |
| NEMA Type 4/4X | 3 | E | Yes or No | | | | | CR309X390S ² | \$1122.00 |
| NEMA Type 4/4X | 4 | F | Yes or No | | | | | CR309X490S ² | \$1974.00 |

- NEMA Types 1, 3R and 12 include 3 plugged holes for heavy duty pilot device(s);
- NEMA Type 4/4X includes 5 plugged holes for heavy duty pilot device(s).

¹For use with or without control transformer.

²Type 4/4X stainless steel reversers also include baseplate.

Product Number Selection Instructions: See page 1-141



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic Combination Starter Enclosure Kits

Section 1

For 300-Line Starters

All Include Handle Mechanism and Provision for Control Transformer

Nonreversing Fusible or Nonfusible Disconnect Type

| Enclosure Type | NEMA Size | For Use with CR308 | Provision for Control Transformer | Width | Height | Depth | Outline Number | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------|--------|-------|----------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | 10.00 | 24.00 | 6.13 | 55-178488 | CR308X190B | \$218.00 |
| NEMA Type 1 | 2 | D | Yes | | | | | CR308X290B | \$351.00 |
| NEMA Type 1 | 3 | E | Yes | | | | | CR308X390B | \$615.00 |
| NEMA Type 1 | 4 | F | Yes | | | | | CR308X490B | \$1004.00 |
| NEMA Type 1 | 5 | G | Yes | | | | | CR308X590B | \$2196.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | 11.00 | 25.25 | 7.92 | 55-209066 | CR308X190J ¹ | \$374.00 |
| NEMA Type 3R | 2 | D | Yes | | | | | CR308X290J ¹ | \$567.00 |
| NEMA Type 3R | 3 | E | Yes | | | | | CR308X390J ¹ | \$891.00 |
| NEMA Type 3R | 4 | F | Yes | | | | | CR308X490J ¹ | \$1748.00 |
| NEMA Type 3R | 5 | G | Yes | | | | | CR308X590J ¹ | \$3972.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | | | | | CR308X190E ¹ | \$374.00 |
| NEMA Type 12 | 2 | D | Yes | | | | | CR308X290E ¹ | \$567.00 |
| NEMA Type 12 | 3 | E | Yes | | | | | CR308X390E ¹ | \$891.00 |
| NEMA Type 12 | 4 | F | Yes | | | | | CR308X490E ¹ | \$1748.00 |
| NEMA Type 12 | 5 | G | Yes | | | | | CR308X590E ¹ | \$3972.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | | | | | CR308X190S ¹ | \$792.00 |
| NEMA Type 4/4X | 2 | D | Yes | | | | | CR308X290S ¹ | \$1239.00 |
| NEMA Type 4/4X | 3 | E | Yes | | | | | CR308X390S ¹ | \$2163.00 |
| NEMA Type 4/4X | 4 | F | Yes | | | | | CR308X490S ¹ | \$2984.00 |
| NEMA Type 4/4X | 5 | G | Yes | | | | | CR308X590S ¹ | \$7148.00 |

Note: Includes 2 plugged holes for Heavy-Duty Pilot Devices.

Reversing Fusible or Nonfusible Disconnect Type

| Enclosure Type | NEMA Size | For Use with CR311 | Provision for Control Transformer | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | CR311X190B | \$306.00 |
| NEMA Type 1 | 2 | D | Yes | CR311X290B | \$471.00 |
| NEMA Type 1 | 3 | E | Yes | CR311X390B | \$765.00 |
| NEMA Type 1 | 4 | F | Yes | CR311X490B | \$1184.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | CR311X190J ¹ | \$510.00 |
| NEMA Type 3R | 2 | D | Yes | CR311X290J ¹ | \$735.00 |
| NEMA Type 3R | 3 | E | Yes | CR311X390J ¹ | \$1113.00 |
| NEMA Type 3R | 4 | F | Yes | CR311X490J ¹ | \$2138.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | CR311X190E ¹ | \$510.00 |
| NEMA Type 12 | 2 | D | Yes | CR311X290E ¹ | \$735.00 |
| NEMA Type 12 | 3 | E | Yes | CR311X390E ¹ | \$1113.00 |
| NEMA Type 12 | 4 | F | Yes | CR311X490E ¹ | \$2138.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | CR311X190S ¹ | \$1038.00 |
| NEMA Type 4/4X | 2 | D | Yes | CR311X290S ¹ | \$1587.00 |
| NEMA Type 4/4X | 3 | E | Yes | CR311X390S ¹ | \$2721.00 |
| NEMA Type 4/4X | 4 | F | Yes | CR311X490S ¹ | \$3656.00 |

Note: Includes 3 plugged holes for Heavy-Duty Pilot Devices.

Nonreversing Thermal Magnetic Circuit Breaker Type

| Enclosure Type | NEMA Size | For Use with CR307 | Provision for Control Transformer | Width | Height | Depth | Outline Number | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------|--------|-------|----------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | 10.00 | 24.00 | 6.13 | 55-178488 | CR307X190B | \$258.00 |
| NEMA Type 1 | 2 | D | Yes | | | | | CR307X290B | \$426.00 |
| NEMA Type 1 | 3 | E | Yes | | | | | CR307X390B | \$576.00 |
| NEMA Type 1 | 4 | F | Yes | | | | | CR307X490B | \$1149.00 |
| NEMA Type 1 | 5 | G | Yes | | | | | CR307X590B | \$2783.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | 11.00 | 25.25 | 7.92 | 55-209066 | CR307X190J ¹ | \$408.00 |
| NEMA Type 3R | 2 | D | Yes | | | | | CR307X290J ¹ | \$642.00 |
| NEMA Type 3R | 3 | E | Yes | | | | | CR307X390J ¹ | \$852.00 |
| NEMA Type 3R | 4 | F | Yes | | | | | CR307X490J ¹ | \$1893.00 |
| NEMA Type 3R | 5 | G | Yes | | | | | CR307X590J ¹ | \$4103.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | | | | | CR307X190E ¹ | \$408.00 |
| NEMA Type 12 | 2 | D | Yes | | | | | CR307X290E ¹ | \$642.00 |
| NEMA Type 12 | 3 | E | Yes | | | | | CR307X390E ¹ | \$852.00 |
| NEMA Type 12 | 4 | F | Yes | | | | | CR307X490E ¹ | \$1893.00 |
| NEMA Type 12 | 5 | G | Yes | | | | | CR307X590E ¹ | \$4103.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | | | | | CR307X190S ¹ | \$834.00 |
| NEMA Type 4/4X | 2 | D | Yes | | | | | CR307X290S ¹ | \$1314.00 |
| NEMA Type 4/4X | 3 | E | Yes | | | | | CR307X390S ¹ | \$2124.00 |
| NEMA Type 4/4X | 4 | F | Yes | | | | | CR307X490S ¹ | \$3129.00 |
| NEMA Type 4/4X | 5 | G | Yes | | | | | CR307X590S ¹ | \$7835.00 |

Note: Includes 2 plugged holes for Heavy-Duty Pilot Devices.

¹Types 12, 3R, and 4/4X also include baseplate



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic Combination Starter Enclosure Kits

For 300-Line Starters

All Include Handle Mechanism and Provision for Control Transformer

Section 1

Reversing Thermal Magnetic Circuit Breaker Type

| Enclosure Type | NEMA Size | For Use with CR310 | Provision for Control Transformer | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | CR310X190B | \$306.00 |
| NEMA Type 1 | 2 | D | Yes | CR310X290B | \$546.00 |
| NEMA Type 1 | 3 | E | Yes | CR310X390B | \$726.00 |
| NEMA Type 1 | 4 | F | Yes | CR310X490B | \$1329.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | CR310X190J ¹ | \$530.00 |
| NEMA Type 3R | 2 | D | Yes | CR310X290J ¹ | \$810.00 |
| NEMA Type 3R | 3 | E | Yes | CR310X390J ¹ | \$1074.00 |
| NEMA Type 3R | 4 | F | Yes | CR310X490J ¹ | \$2283.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | CR310X190E ¹ | \$530.00 |
| NEMA Type 12 | 2 | D | Yes | CR310X290E ¹ | \$810.00 |
| NEMA Type 12 | 3 | E | Yes | CR310X390E ¹ | \$1074.00 |
| NEMA Type 12 | 4 | F | Yes | CR310X490E ¹ | \$2283.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | CR310X190S ¹ | \$1056.00 |
| NEMA Type 4/4X | 2 | D | Yes | CR310X290S ¹ | \$1662.00 |
| NEMA Type 4/4X | 3 | E | Yes | CR310X390S ¹ | \$2682.00 |
| NEMA Type 4/4X | 4 | F | Yes | CR310X490S ¹ | \$3801.00 |

Note: Includes 3 plugged holes for Heavy-Duty Pilot Devices.

Nonreversing Mag-Break Type

| Enclosure Type | NEMA Size | For Use with CR387 | Provision for Control Transformer | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | CR387X190B | \$258.00 |
| NEMA Type 1 | 2 | D | Yes | CR387X290B | \$426.00 |
| NEMA Type 1 | 3 | E | Yes | CR387X390B | \$576.00 |
| NEMA Type 1 | 4 | F | Yes | CR387X490B | \$2783.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | CR387X190J ¹ | \$408.00 |
| NEMA Type 3R | 2 | D | Yes | CR387X290J ¹ | \$642.00 |
| NEMA Type 3R | 3 | E | Yes | CR387X390J ¹ | \$852.00 |
| NEMA Type 3R | 4 | F | Yes | CR387X490J ¹ | \$1893.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | CR387X190E ¹ | \$408.00 |
| NEMA Type 12 | 2 | D | Yes | CR387X290E ¹ | \$642.00 |
| NEMA Type 12 | 3 | E | Yes | CR387X390E ¹ | \$852.00 |
| NEMA Type 12 | 4 | F | Yes | CR387X490E ¹ | \$1893.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | CR387X190S ¹ | \$834.00 |
| NEMA Type 4/4X | 2 | D | Yes | CR387X290S ¹ | \$1314.00 |
| NEMA Type 4/4X | 3 | E | Yes | CR387X390S ¹ | \$2124.00 |
| NEMA Type 4/4X | 4 | F | Yes | CR387X490S ¹ | \$3129.00 |

Note: Includes 2 plugged holes for Heavy-Duty Pilot Devices.

Reversing Mag-Break Type

| Enclosure Type | NEMA Size | For Use with CR390 | Provision for Control Transformer | Product Number | List Price GO-10G1 |
|----------------|-----------|--------------------|-----------------------------------|-------------------------|--------------------|
| NEMA Type 1 | 0, 1 | B, C | Yes | CR390X190B | \$324.00 |
| NEMA Type 1 | 2 | D | Yes | CR390X290B | \$546.00 |
| NEMA Type 1 | 3 | E | Yes | CR390X390B | \$726.00 |
| NEMA Type 1 | 4 | F | Yes | CR390X490B | \$1329.00 |
| NEMA Type 3R | 0, 1 | B, C | Yes | CR390X190J ¹ | \$528.00 |
| NEMA Type 3R | 2 | D | Yes | CR390X290J ¹ | \$810.00 |
| NEMA Type 3R | 3 | E | Yes | CR390X390J ¹ | \$1074.00 |
| NEMA Type 3R | 4 | F | Yes | CR390X490J ¹ | \$2283.00 |
| NEMA Type 12 | 0, 1 | B, C | Yes | CR390X190E ¹ | \$528.00 |
| NEMA Type 12 | 2 | D | Yes | CR390X290E ¹ | \$810.00 |
| NEMA Type 12 | 3 | E | Yes | CR390X390E ¹ | \$1074.00 |
| NEMA Type 12 | 4 | F | Yes | CR390X490E ¹ | \$2283.00 |
| NEMA Type 4/4X | 0, 1 | B, C | Yes | CR390X190S ¹ | \$1056.00 |
| NEMA Type 4/4X | 2 | D | Yes | CR390X290S ¹ | \$1662.00 |
| NEMA Type 4/4X | 3 | E | Yes | CR390X390S ¹ | \$2682.00 |
| NEMA Type 4/4X | 4 | F | Yes | CR390X490S ¹ | \$3816.00 |

Note: Includes 3 plugged holes for Heavy-Duty Pilot Devices.

Hole Plug Kits

| Hole For: | Enclosure Type | Product Number | List Price, GO-11G |
|-------------------------|----------------|----------------|---------------------|
| OL Reset | 1, 12, or 3R | 55-194336G005 | \$8.00 |
| Heavy-Duty Pilot Device | 1, 12, or 3R | CR104PXG103 | \$6.00 ² |
| OL Reset | 4/4X | 55-194336G003 | \$8.00 |
| Heavy-Duty Pilot Device | 4/4X | CR104PXG113 | \$6.00 ² |

¹Types 12, 3R, and 4/4X also include baseplate
²GO-10P1.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR324 Block Overload Relays for Panel Mounting

600 VAC/250 VDC, Three-Pole
135 Maximum Amperes Continuous

Application

The panel-mount block overload relay provides overload protection for motors having full-load currents up to 135 Amperes. The relays are furnished complete for use on control panels. When an overload condition occurs in any of the three legs in which heaters are inserted, it will cause the relay to trip, opening a normally closed contact, and, as an option, closing a normally open contact.

Standard and ambient compensated forms with various contact arrangements are available. A normally open circuit may be connected to a signal light, an alarm bell, or input circuit of a programmable controller, e.g., to provide indication of an overload relay trip.

Features

- Flexibility of operation; trip rating can be easily changed by replacing the front-accessible heaters.
- Dual Bimetal Current Monitoring; additional bimetal strip “anticipates” the rate of temperature rise in the motor winding; effectively reduces trip time in locked rotor conditions. It prevents dangerous temperature overshoot in the motor windings.

Product Number Selection Instructions

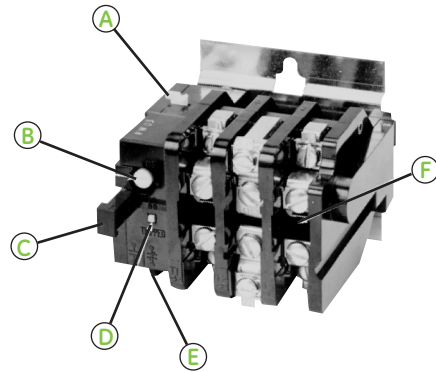
1. Order required relay by complete product number as shown in pricing table.
Example: An open block-type relay with one normally closed contact is to be mounted in a control panel. Three-leg overload protection is needed and the full-load current of the motor being controlled is 40.5 amperes. Order: CR324D310A at **\$78.00, GO-10H** and three CR123C400B heaters. List Price **\$9.00 each, GO-10H**. Heaters are selected from tables on page 1-157.

Reference Publications

| | |
|---------------------|----------|
| Time Current Curves | GES-7202 |
| Instructions | GEH-4821 |

Overload Relays for Panel Mounting (CR324) – Contents

| | |
|---|-------|
| Application Information and Selection Instructions..... | 1-145 |
| Three-Pole, 135 Maximum Amperes Continuous..... | 1-146 |
| Outlines and Dimensions | 1-147 |



Typical 300-line Overload Relay with Heater
Shown in Center Pole Only

- (A) Manual weld check for contacts
- (B) Overload trip adjustment $\pm 10\%$
- (C) Safe reset operates on upstroke only
- (D) Visual trip indication
- (E) Optional normally open isolated, high-fidelity contacts
- (F) GE exclusive dual bimetal overload protection



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR324 Block Overload Relays for Panel Mounting

Section 1

600 VAC/250 VDC, Three-Pole
135 Maximum Amperes Continuous

CR324 Block Overload Relays

| Current Rating (Amps) | NEMA Size | Contact Configuration | Manual Reset | | | | Automatic Reset | | | |
|--------------------------|--------------|--------------------------|----------------------------|----------------------|------------------------------------|----------------------|----------------------------|----------------------|------------------------------------|----------------------|
| | | | Standard Panel-Mount | | Ambient Compensated Panel-Mount | | Standard Panel-Mount | | Ambient Compensated Panel-Mount | |
| | | | Product Number CR324 | List Price GO-10H | Product Number CR324 | List Price GO-10H | Product Number CR324 | List Price GO-10H | Product Number CR324 | List Price GO-10H |
| 27 | 1 | 1NC | C310A | \$54.00 | C610A | \$66.00 | C310A1 ¹ | \$54.00 | C610A1 ¹ | \$66.00 |
| 27 | 1 | 1NO-1NC | C360A | \$78.00 | C660A | \$90.00 | - | - | - | - |
| 45 | 2 | 1NC | D310A | \$78.00 | D610A | \$90.00 | D310A1 ¹ | \$78.00 | D610A1 ¹ | \$90.00 |
| 45 | 2 | 1NO-1NC | D360A | \$102.00 | D660A | \$114.00 | - | - | - | - |
| 90 | 3 | 1NC | E310A | \$108.00 | E610A | \$120.00 | E310A1 ¹ | \$108.00 | E610A1 ¹ | \$120.00 |
| 90 | 3 | 1NO-1NC | E360A | \$132.00 | E660A | \$144.00 | - | - | - | - |
| 135 | 4 | 1NC | F310A | \$168.00 | F610A | \$180.00 | F310A1 ¹ | \$168.00 | F610A1 ¹ | \$180.00 |
| 135 | 4 | 1NO-1NC | F360A | \$192.00 | F660A | \$204.00 | - | - | - | - |

¹For NO/NC (SPDT) contact forms, contact nearest GE Representative.

Contact Ratings

| Continuous Rating Amperes | Make Amperes | Recommended Maximum Interrupting Capacity, Amperes | | | | | |
|---------------------------------|-----------------|--|-------|-------|-------------|-------|-------|
| | | DC Circuits | | | AC Circuits | | |
| | | 125 V | 250 V | 115 V | 230 V | 460 V | 575 V |
| 10 | 30 | 0.35 | 0.17 | 3 | 1.5 | 0.75 | 0.6 |

Accessories

External Reset Kit

| Enclosure Type | NEMA Size | Reset Distance (in.) Behind Panel | Product Number | List Price GO-10H |
|-------------------|--------------|--------------------------------------|-------------------|----------------------|
| NEMA Type 1 | 00-5 | 1 - 6 | CR124X100C | \$21.00 |
| NEMA Type 12 | | | | |
| NEMA Type 4/4X | 00-5 | 1 - 6 | CR124X100D | \$25.00 |

For Single or Block Overload Relays and 200-, 300- and 400-line Starters.



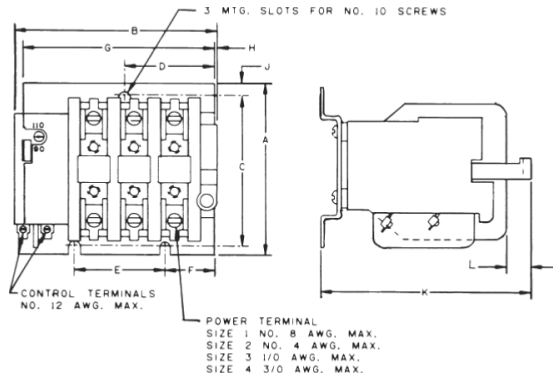
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

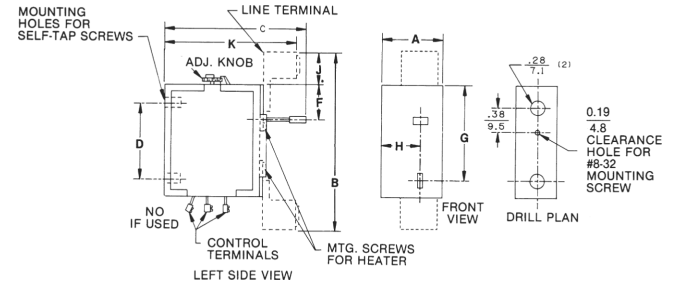
CR324, CR124 Thermal Overload Relays

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1



CR324



CR124

CR324 NEMA Sizes 1-4

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Dimension G | Dimension H | Dimension J | Dimension K | Dimension L | Mounting Screw Size |
|-----------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|---------------------|
| 1 | 3.19 (81.0) | 3.71 (94.2) | 2.75 (69.8) | 1.75 (44.4) | 1.50 (38.1) | 1.00 (25.4) | 3.50 (88.9) | 0.06 (1.5) | 0.22 (5.5) | 3.75 (95.2) | .66 (1.66) | #10 |
| 2 | 3.19 (81.0) | 3.71 (94.2) | 2.75 (69.8) | 1.75 (44.4) | 1.50 (38.1) | 1.00 (25.4) | 3.50 (88.9) | 0.06 (1.5) | 0.22 (5.5) | 3.75 (95.2) | .66 (1.66) | #10 |
| 3 | 4.62 (117.4) | 6.25 (158.8) | 4.00 (101.6) | 2.62 (66.5) | 3.00 (76.2) | 1.12 (28.4) | — | — | .38 (9.6) | 4.28 (108.7) | .54 (13.7) | 1/4" |
| 4 | 4.62 (117.4) | 6.25 (158.8) | 4.00 (101.6) | 2.62 (66.5) | 3.00 (76.2) | 1.12 (28.4) | — | — | .38 (9.6) | 4.28 (108.7) | .54 (13.7) | 1/4" |

CR124 NEMA Sizes 1-4

| NEMA Size | Product Number | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Dimension G | Dimension H | Dimension J | Dimension K | Shipping Weight |
|-----------|------------------------|-------------|--------------|--------------|----------------|-------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| 1 | CR124C | 0.94 (23.8) | 2.75 (70.0) | 3.41 (86.5) | See Drill Plan | 0.28 (7.1) | — | 1.38 (34.9) | 0.79 (20.0) | 0.58 (14.7) | — | 6 oz. |
| 1 | CR124K | 0.94 (23.8) | 3.25 (82.6) | 3.38 (86.0) | See Drill Plan | 0.28 (7.1) | — | 1.81 (46.0) | 0.79 (20.0) | 0.63 (15.9) | — | 6 oz. |
| 2 | CR124D | 0.94 (23.8) | 2.72 (69.1) | 3.41 (86.5) | See Drill Plan | 0.28 (7.1) | — | 1.38 (34.9) | 0.79 (20.0) | 0.34 (8.7) | — | 6 oz. |
| 2 | CR124L | 0.94 (23.8) | 3.06 (77.8) | 3.38 (86.0) | See Drill Plan | 0.28 (7.1) | — | 1.81 (46.0) | 0.79 (20.0) | 0.44 (11.1) | — | 6 oz. |
| 3 | CR124E | 1.50 (38.1) | 5.00 (127.0) | 4.28 (108.7) | 2.31 (58.7) | 0.50 (12.7) | 1.00 (25.4) | — | 1.13 (28.6) | 0.75 (19.1) | 3.8 (95.2) | 1 lb. |
| 3 | CR124M ¹ | 1.63 (41.3) | 6.28 (159.5) | 4.25 (108.0) | 2.31 (58.7) | 0.34 (8.7) | — | 0.50 (12.7) | 0.81 (20.6) | 1.63 (41.3) | 3.66 (92.9) | 1 lb. |
| 4 | CR124F | 1.50 (38.1) | 5.25 (133.4) | 4.28 (108.7) | 2.31 (58.7) | 0.50 (12.7) | 1.00 (25.4) | — | 1.13 (28.6) | 1.00 (25.4) | 3.94 (100.0) | 1.5 lbs. |
| 4 | CR124N ¹ | 1.63 (41.3) | 6.81 (173.0) | 4.25 (108.0) | 2.31 (58.7) | 0.34 (8.7) | — | 0.50 (12.7) | 0.81 (20.6) | 1.88 (47.6) | 4.47 (113.5) | 1.5 lbs. |
| 5 | CR124G011 ² | 3.00 (76.2) | 8.50 (215.9) | 5.44 (138.1) | 6.00 (152.4) | — | 1.00 (25.4) | — | — | 3.63 (92.2) | 5.63 (142.9) | 3 lbs. |
| 5 | CR124G019 ² | 3.00 (76.2) | 8.50 (215.9) | 5.44 (138.1) | 6.00 (152.4) | — | 1.00 (25.4) | — | — | 3.63 (92.2) | 5.63 (142.9) | 3 lbs. |

¹Control terminals are at top, adjusting knob at bottom on these forms.

²Between clearance holes through 3/4" thick compound base for 3/8" mounting bolts; upper hole is 2 3/8" above top of relay body (1 1/4" below top of top terminal).



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

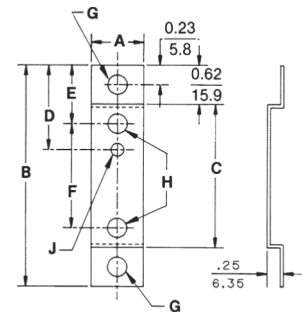
CR324, CR124 Thermal Overload Relays

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

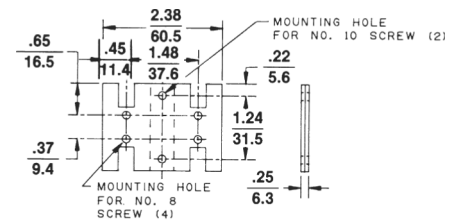
Section 1

CR124 Panel Mounting Bracket 1-Pole Sizes 1-4 Relays

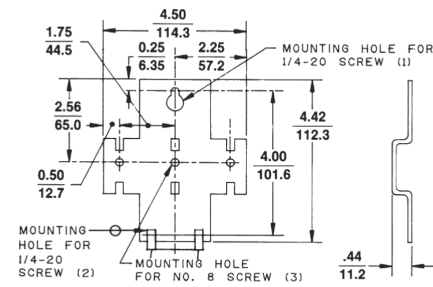
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Dimension G | Dimension H | Dimension J |
|-----------|-------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|
| 1, 2 | 0.75 (19.1) | 3.12 (79.4) | 2.50 (63.5) | 1.35 (34.3) | — | — | 0.28D (7.1D) | — | 0.19D (4.8) |
| 3, 4 | 1.00 (25.4) | 4.50 (114.3) | 3.13 (79.5) | — | 1.00 (25.4) | 2.31 (58.7) | 0.28D (7.1D) | 0.26D (6.5D) | — |



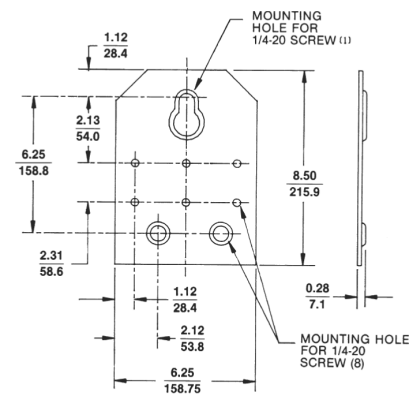
Panel Mounting Bracket,
1-Pole Sizes 1-4 Relays



Panel Mounting Bracket,
2-Pole Sizes 1 and 2 Relays



Panel Mounting Bracket,
3-Pole Sizes 1 and 2 Relays



Panel Mounting Bracket,
3-Pole Sizes 3 and 4 Relays



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic Electronic Overload Relays

Section 1

Features

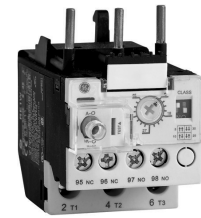
- Self powered
- Great accuracy
- Full reliability
- Phase unbalance protection
- Direct mount to IEC contactors, C-2000
- Panel mount adapter for NEMA contactors
- Interchangeable with thermal overload relay
- Multiple trip class selection; class 5-10-20-30
- Manual / Auto reset
- Setting range from 0.1 up to 150A
- Thermal memory
- Phase loss protection
- Increased flexibility; fewer product numbers; less stock required
- UL 508 certified

Electronic Overload Relays

| | Setting Range (A) | | Product Number | Reference Number | List Price GO-10GS |
|---------|-------------------|------|----------------|------------------|--------------------|
| | Min. | Max. | | | |
| Frame 1 | 0.1 | 0.5 | RE1D | 101866 | \$155.00 |
| | 0.4 | 2 | RE1H | 101867 | \$155.00 |
| | 1 | 5 | RE1K | 101868 | \$155.00 |
| | 1.6 | 8 | RE1M | 101869 | \$155.00 |
| | 6.4 | 32 | RE1S | 101870 | \$155.00 |
| Frame 2 | 9 | 45 | RE1W | 101871 | \$155.00 |
| | 15 | 75 | RE2H | 101872 | \$275.00 |
| Frame 3 | 22 | 110 | RE2M | 101873 | \$275.00 |
| | 30 | 150 | RE3E | 101874 | \$450.00 |

Accessories

| Size | Description | Product Number | Reference Number | List Price GO-10GS |
|--------|---------------------------|----------------|------------------|--------------------|
| Size 1 | Panel Mount Adapter | RE1XP | 247302 | \$24.00 |
| Size 2 | | RE2XP | 247303 | \$24.00 |
| | Remote Reset Button Cover | RETC | 247795 | \$4.00 |



Frame 1



Frame 2



Frame 3



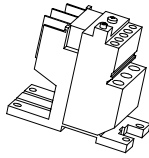
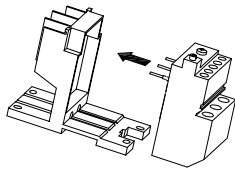
NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

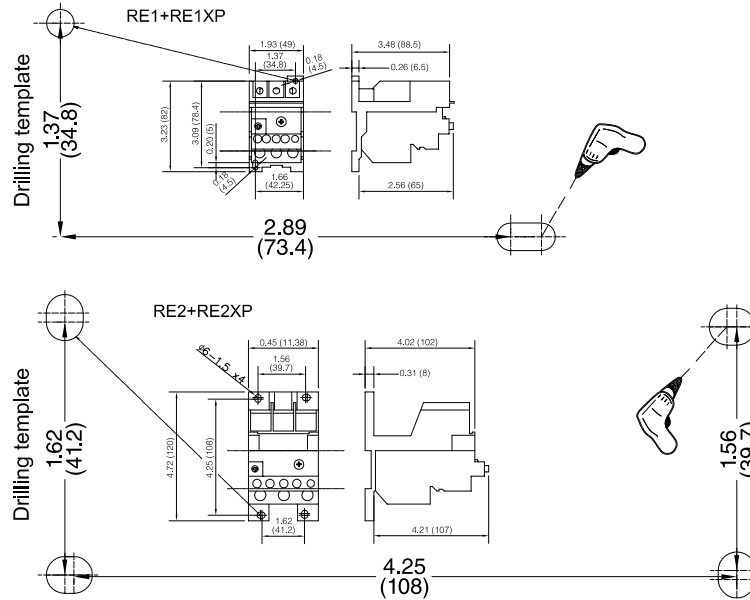
Electronic Overload Relays

Outlines, Dimensions in. (mm), Trip Curves

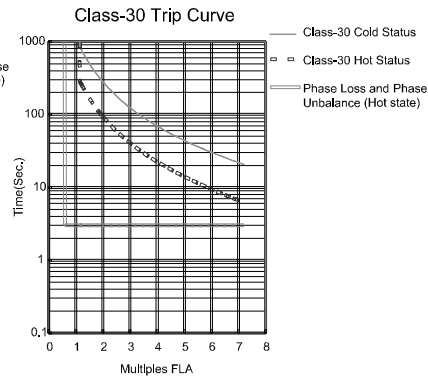
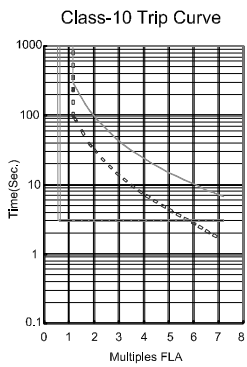
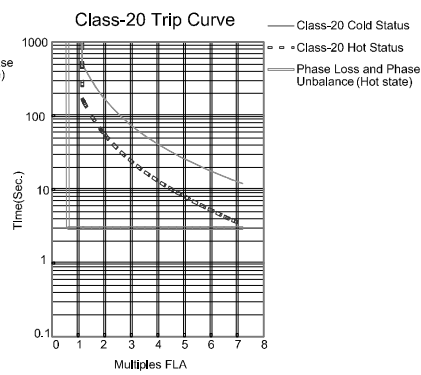
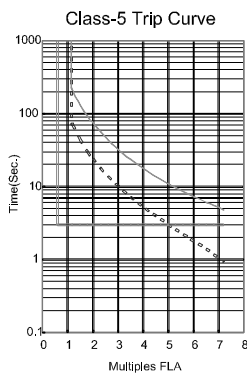
Section 1



RE3: USE LUG KIT CKX03



Panel Mount



Trip Curves



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Approximate Motor Full-Load Current Ratings

Full-Load Current of Normal Efficiency Motors—Average Expected Values

For three-phase, 60-Hertz, GE Type K (NEMA Design B) Tri-Clad 700-Line, normal efficiency, drip-proof, normal starting torque, continuous, 40°C ambient (1.15 service factor) horizontal induction motors.

| Motor Horse-power | Synchronous Speed RPM | Average Expected Values of Full-Load Currents ¹ | | | | Motor Horse-power | Synchronous Speed RPM | Average Expected Values of Full-Load Currents | | | |
|-------------------|-----------------------|--|------|------|------|-------------------|-----------------------|---|------|------|------|
| | | 200V | 230V | 460V | 575V | | | 200V | 230V | 460V | 575V |
| 1/4 ² | 1800 | 1.6 | 1.4 | 0.70 | 0.56 | 25 | 3600 | 72.0 | 62.6 | 31.3 | 25.0 |
| | 1200 | 1.7 | 1.5 | 0.75 | 0.60 | | 1800 | 71.3 | 62.0 | 31.0 | 24.8 |
| 1/3 ² | 3600 | 2.0 | 1.7 | 0.85 | 0.68 | 1200 | 73.8 | 64.2 | 32.1 | 25.7 | |
| | 1800 | 1.7 | 1.5 | 0.75 | 0.60 | 900 | 82.6 | 71.8 | 35.9 | 28.7 | |
| 1/2 | 1200 | 2.0 | 1.7 | 0.85 | 0.68 | 3600 | 85.6 | 74.4 | 37.2 | 29.8 | |
| | 3600 | 2.0 | 1.8 | 0.88 | 0.70 | 1800 | 86.0 | 74.8 | 37.4 | 29.9 | |
| 3/4 | 1800 | 2.3 | 2.0 | 1.0 | 0.80 | 1200 | 88.6 | 77.0 | 38.5 | 30.8 | |
| | 1200 | 2.3 | 2.0 | 1.0 | 0.80 | 900 | 92.2 | 80.2 | 40.1 | 32.1 | |
| 1 | 900 | 3.2 | 2.8 | 1.4 | 1.4 | 3600 | 110 | 95.6 | 47.8 | 39.2 | |
| | 3600 | 2.8 | 2.4 | 1.2 | 0.96 | 1800 | 116 | 100.9 | 50.4 | 40.3 | |
| 1 1/2 | 1800 | 3.2 | 2.8 | 1.4 | 1.1 | 1200 | 114 | 99.6 | 49.8 | 39.8 | |
| | 1200 | 3.7 | 3.2 | 1.6 | 1.3 | 900 | 122 | 105.8 | 52.9 | 42.3 | |
| 2 | 900 | 4.4 | 3.8 | 1.9 | 1.5 | 3600 | 140 | 122.2 | 61.1 | 48.9 | |
| | 3600 | 3.7 | 3.2 | 1.6 | 1.3 | 1800 | 142 | 123.6 | 61.8 | 49.4 | |
| 2 1/2 | 1800 | 4.1 | 3.6 | 1.8 | 1.4 | 1200 | 144 | 125.2 | 62.6 | 50.1 | |
| | 1200 | 4.4 | 3.8 | 1.9 | 1.5 | 900 | 159 | 138.2 | 69.1 | 55.3 | |
| 3 | 900 | 5.5 | 4.8 | 2.4 | 1.9 | 3600 | 163 | 141.4 | 70.7 | 56.6 | |
| | 3600 | 5.3 | 4.6 | 2.3 | 1.8 | 1800 | 172 | 149.8 | 74.9 | 59.9 | |
| 3 1/2 | 1800 | 6.0 | 5.2 | 2.6 | 2.1 | 1200 | 172 | 149.2 | 74.6 | 59.7 | |
| | 1200 | 6.0 | 5.2 | 2.6 | 2.1 | 900 | 176 | 153.4 | 76.7 | 61.4 | |
| 4 | 900 | 7.1 | 6.2 | 3.1 | 2.5 | 3600 | 206 | 178.8 | 89.4 | 71.5 | |
| | 3600 | 6.9 | 6.0 | 3.0 | 2.4 | 1800 | 207 | 180.0 | 90.0 | 72.0 | |
| 5 | 1800 | 7.1 | 6.2 | 3.1 | 2.5 | 1200 | 206 | 179.2 | 89.6 | 71.7 | |
| | 1200 | 7.6 | 6.6 | 3.3 | 2.6 | 900 | 221 | 191.8 | 95.9 | 76.7 | |
| 6 | 900 | 10.6 | 9.2 | 4.6 | 3.7 | 3600 | 262 | 228 | 114 | 91.2 | |
| | 3600 | 9.4 | 8.2 | 4.1 | 3.3 | 1800 | 281 | 244 | 122 | 97.7 | |
| 7 | 1800 | 9.9 | 8.6 | 4.3 | 3.4 | 1200 | 283 | 246 | 123 | 98.4 | |
| | 1200 | 12.0 | 10.4 | 5.2 | 4.2 | 900 | 296 | 258 | 129 | 103 | |
| 8 | 900 | 15.4 | 13.4 | 6.7 | 5.4 | 3600 | 334 | 290 | 145 | 116 | |
| | 3600 | 15.4 | 13.4 | 6.7 | 5.4 | 1800 | 340 | 296 | 148 | 118 | |
| 9 | 1800 | 16.3 | 14.2 | 7.1 | 5.7 | 1200 | 352 | 306 | 153 | 122 | |
| | 1200 | 19.3 | 16.8 | 8.4 | 6.7 | 900 | 370 | 322 | 161 | 129 | |
| 10 | 900 | 19.8 | 17.2 | 8.6 | 6.9 | 3600 | 398 | 346 | 173 | 138 | |
| | 3600 | 21.6 | 18.8 | 9.4 | 7.5 | 1800 | 412 | 348 | 179 | 143 | |
| 12 | 1800 | 23.7 | 20.6 | 10.3 | 8.2 | 1200 | 419 | 364 | 182 | 146 | |
| | 1200 | 26.0 | 23.6 | 11.3 | 9.0 | 900 | 435 | 378 | 189 | 151 | |
| 15 | 900 | 28.5 | 24.8 | 12.4 | 9.9 | 3600 | — | 446 | 223 | 178 | |
| | 3600 | 27.4 | 23.8 | 11.9 | 9.5 | 1800 | — | 468 | 234 | 187 | |
| 20 | 1800 | 31.3 | 27.2 | 13.6 | 10.9 | 1200 | — | 482 | 241 | 193 | |
| | 1200 | 32.7 | 28.4 | 14.2 | 11.4 | 900 | — | 574 | 287 | 230 | |
| 25 | 900 | 33.1 | 28.8 | 14.4 | 11.5 | 3600 | — | 590 | 295 | 236 | |
| | 3600 | 42.6 | 37.0 | 18.5 | 14.8 | 1800 | — | 594 | 297 | 238 | |
| 30 | 1800 | 46.7 | 40.6 | 20.3 | 16.2 | 1200 | — | 676 | 338 | 270 | |
| | 1200 | 45.1 | 39.2 | 19.6 | 15.7 | 900 | — | 686 | 343 | 274 | |
| 40 | 900 | 47.6 | 41.4 | 20.7 | 16.6 | 3600 | — | 774 | 387 | 310 | |
| | 3600 | 62.3 | 54.2 | 27.1 | 21.7 | 1800 | — | 792 | 396 | 317 | |
| 50 | 1800 | 59.3 | 51.6 | 25.8 | 20.6 | 1200 | — | 890 | 445 | 356 | |
| | 1200 | 56.6 | 48.2 | 24.6 | 19.7 | 900 | — | — | — | — | |
| 60 | 900 | 63.9 | 55.6 | 27.8 | 22.2 | 3600 | — | — | — | — | |
| | 3600 | — | — | — | — | 1800 | — | — | — | — | |

¹ For expected values on 208-Volt, 50-Hertz, three-phase motors, contact nearest GE Representative.

² Open, Type K, General-Purpose, NEMA SF, Solid-Base, Rolled-Steel-Shell, GE Induction Motors.

Note: The listed data is based on approximate full-load current ratings of standard, open, 1.15 service factor, continuous rated GE motors. Full-load current ratings of similar motors of other manufacturers may vary considerably. Therefore, whenever possible use actual full-load current rating given on motor nameplate. Contact motor manufacturer for full-load currents of single-phase and DC motors.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

Approximate Motor Full-Load Current Ratings

Section 1

Full-Load Current of Energy Saver™ Motors—Average Expected Values

For three-phase, 60-Hertz, GE Type KS (NEMA Design B) Energy Saver™ high-efficiency, drip-proof, normal starting torque, continuous, 40°C ambient (1.15 service factor) horizontal induction motors.

| Motor Horse-power | Synchronous Speed RPM | Average Expected Values of Full-Load Currents ¹ | | | |
|-------------------|-----------------------|--|------|------|------|
| | | 200V | 230V | 460V | 575V |
| 3 | 1200 | 10.4 | 9.0 | 4.5 | 3.6 |
| 5 | 1200 | 16.1 | 14.0 | 7.0 | 5.6 |
| | 3600 | 20.2 | 17.6 | 8.8 | 7.0 |
| 7 1/2 | 1800 | 20.7 | 18.0 | 9.0 | 7.2 |
| | 1200 | 22.5 | 19.6 | 9.8 | 7.8 |
| | 3600 | 26.2 | 22.8 | 11.4 | 9.1 |
| 10 | 1800 | 27.6 | 24.0 | 12.0 | 9.6 |
| | 1200 | 29.4 | 25.6 | 12.8 | 10.2 |
| | 3600 | 40.7 | 35.4 | 17.7 | 14.2 |
| 15 | 1800 | 42.1 | 36.6 | 18.3 | 14.6 |
| | 1200 | 42.1 | 36.4 | 18.2 | 14.6 |
| | 3600 | 52.2 | 45.4 | 22.7 | 18.1 |
| 20 | 1800 | 54.3 | 47.2 | 23.6 | 18.9 |
| | 1200 | 55.4 | 48.2 | 24.1 | 19.3 |
| | 3600 | 65.1 | 56.6 | 28.3 | 22.6 |
| 25 | 1800 | 66.0 | 57.4 | 28.7 | 23.0 |
| | 1200 | 69.9 | 60.8 | 30.4 | 24.3 |
| | 3600 | 76.4 | 66.4 | 33.2 | 26.6 |
| 30 | 1800 | 79.4 | 69.0 | 34.5 | 27.6 |
| | 1200 | 83.3 | 72.4 | 36.2 | 29.0 |
| | 3600 | 100.7 | 87.6 | 43.8 | 35.0 |
| 40 | 1800 | 104.6 | 91.0 | 45.5 | 36.4 |
| | 1200 | 108.3 | 94.2 | 47.1 | 37.7 |

| Motor Horse-power | Synchronous Speed RPM | Average Expected Values of Full-Load Currents ¹ | | | |
|-------------------|-----------------------|--|-------|-------|-------|
| | | 200V | 230V | 460V | 575V |
| | 3600 | 126.0 | 110.0 | 55.0 | 44.0 |
| 50 | 1800 | 132.2 | 115.0 | 57.5 | 46.0 |
| | 1200 | 134.6 | 117.0 | 58.5 | 46.8 |
| | 3600 | 151.6 | 131.8 | 65.9 | 52.7 |
| 60 | 1800 | 160.8 | 139.8 | 69.9 | 55.9 |
| | 1200 | 161.5 | 140.4 | 70.2 | 56.2 |
| | 3600 | 187.4 | 163.0 | 81.5 | 65.2 |
| 75 | 1800 | 198.7 | 172.8 | 86.4 | 69.1 |
| | 1200 | 199.4 | 173.4 | 86.7 | 69.4 |
| | 3600 | 253.0 | 220.0 | 110.0 | 88.0 |
| 100 | 1800 | 264.5 | 230.0 | 115.0 | 92.0 |
| | 1200 | 257.6 | 224.0 | 112.0 | 89.6 |
| | 3600 | 317.9 | 276.4 | 138.2 | 110.6 |
| 125 | 1800 | 314.6 | 273.6 | 136.8 | 109.4 |
| | 1200 | 319.7 | 278.0 | 139.0 | 111.2 |
| | 3600 | 381.3 | 331.6 | 165.8 | 132.6 |
| 150 | 1800 | 381.8 | 332.0 | 166.0 | 132.8 |
| | 1200 | 395.6 | 344.0 | 172.0 | 137.6 |
| | 3600 | 480.7 | 418.0 | 209.0 | 167.2 |
| 200 | 1800 | 499.1 | 434.0 | 217.0 | 173.6 |
| | 1200 | 522.1 | 454.0 | 227.0 | 181.6 |
| | 3600 | 637.1 | 554.0 | 277.0 | 221.6 |
| 250 | 1800 | 676.2 | 588.0 | 294.0 | 235.2 |

¹ For expected values on 208-Volt, 50-Hertz, three-phase motors, contact nearest GE Representative.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Motor Starter Heaters

Heater Selection

Section 1

Magnetic Starters—Full Voltage

Heater Selection Information

To prevent overloading the starter do not select heater(s) for a motor of larger rating than the maximum given on the nameplate for the starter.

For continuous rated motors, with a service factor of 1.15 to 1.25, select the heater with maximum motor Amperes equal to or immediately greater than the motor full-load current (provides a maximum of 125 percent protection). For continuous rated motors with no service factor, multiply the full-load current of the motor by 0.90 and use this value to select the heater.

To protect the heater and starter during a short circuit, provide motor-branch-circuit protection in accordance with Table 430-152 in Article 430 of the National Electrical Code. In no case should the fuse rating exceed 4 times the motor full-load current for single-element fuses, or 2.25 times for dual-element fuses, or the fuse size listed in heater table under Maximum Fuse Rating.

Caution: Overload relays, when furnished with automatic reset, should not be used with two-wire, maintained contact pilot devices such as pressure, float and limit switches, as inadvertent restarting of the motor can occur.

How To Select Heaters

The table below should be used to determine which column of motor full-load Amperes applies for heater selection. Select in order, the basic device—including product number and description, the NEMA Type of enclosure, and the column to be used in the proper table by NEMA Size.

If full-load Amperes of the motor falls between two ratings, select heaters for the higher rating.

Ordering Information

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

| Heater Product Number | List Price Each, GO-10H |
|-----------------------|-------------------------|
| CR123C (All) | \$9.00 |
| CR123F (All) | \$9.00 |

| Heater Rack Product Number | List Price Each, GO-10D |
|----------------------------|-------------------------|
| CR243X10049 | \$96.00 |

| Base Product Number Starter/Overload Relay | Description | NEMA Type Enclosure | Quantity Heaters Required | Heater Table Column (Pages 1-154 to 1-155) | |
|---|---|---------------------|------------------------------|--|---|
| CR306 | Single-Phase, 2-Pole, Size 00-2 | Open | 1 | A | |
| | Single-Phase, 2-Pole, Size 00-2 | 1, 3R, 4/4X, 12 | 1 | B | |
| | Single-Phase, 2-Pole, Size 3 | Open | 2 | A | |
| | Single-Phase, 2-Pole, Size 6 | 1, 3R, 4/4X, 12 | 2 | B | |
| CR306 | 3-Phase, 3-Pole, 3-Leg Protection standard, size 00-5 | Open | 3 | C | |
| | ambient compensated, size 00, 0, 1, 2 & 5 | Open | 3 | C | |
| | ambient compensated, size 3 | Open | 3 | D | |
| | ambient compensated, size 8 | Open | 3 | E | |
| CR306, CR307, CR308, CR387, CR407, CR408, CR487 | 3-Phase, 3-Pole, 3-Leg Protection standard, size 00-5 | 1, 3R, 4/4X, 12 | 3 | D | |
| | ambient compensated, size 00, 0, 1, 2 & 5 | 1, 3R, 4/4X, 12 | 3 | C | |
| | ambient compensated, size 3 | 1, 3R, 4/4X, 12 | 3 | D | |
| | ambient compensated, size 8 | 1, 3R, 4/4X, 12 | 3 | E | |
| CR309 | 3-Phase, 3 3-Pole, 3-Leg Protection standard, size 00-5 | Open | 3-Reverser | 6-Two-Speed | C |
| | ambient compensated, size 00, 0, 1, 2 & 5 | Open | 3-Reverser | 6-Two-Speed | C |
| | ambient compensated, size 3 | Open | 3-Reverser | 6-Two-Speed | D |
| | ambient compensated, size 8 | Open | 3-Reverser | 6-Two-Speed | E |
| CR309, CR410, CR411, CR490 | 3-Phase, 3 3-Pole, 3-Leg Protection standard, size 00-5 | 1, 3R, 4/4X, 12 | 3-Reverser | 6-Two-Speed | D |
| | ambient compensated, size 00, 0, 1, 2 & 5 | 1, 3R, 4/4X, 12 | 3-Reverser | 6-Two-Speed | C |
| | ambient compensated, size 3 | 1, 3R, 4/4X, 12 | 3-Reverser | 6-Two-Speed | D |
| | ambient compensated, size 8 | 1, 3R, 4/4X, 12 | 3-Reverser | 6-Two-Speed | E |
| CR324 | Panel-Mounted | | See tables, page 1-157 | | |
| All NEMA Sizes 6-9 | 3-Phase, 3-Leg Protection, Standard | | See tables, page 1-156 | | |
| CR124 | Single-Element, Panel-Mounted | | See tables, page 1-158 | | |
| CR124 | Single-Element, Ambient Compensated, Standard and Quick Trip | | See tables, page 1-157 | | |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Motor Starter Heaters

Heater Selection

Section 1

| Product | |
|--------------|--------|
| CR123C (All) | \$9.00 |
| CR123F (All) | \$9.00 |

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

NEMA Sizes 00, 0 and 1

| Maximum Motor Full-Load Amperes | | | | Heater Product Number |
|---------------------------------|------|------|------|-----------------------|
| A | B | C | D | |
| 0.48 | 0.46 | 0.45 | 0.43 | CR123C054A |
| 0.55 | 0.50 | 0.49 | 0.48 | CR123C060A |
| 0.57 | 0.57 | 0.53 | 0.53 | CR123C066A |
| 0.65 | 0.62 | 0.59 | 0.58 | CR123C071A |
| 0.69 | 0.68 | 0.65 | 0.64 | CR123C078A |
| 0.83 | 0.80 | 0.76 | 0.74 | CR123C087A |
| 0.97 | 0.91 | 0.84 | 0.84 | CR123C097A |
| 1.03 | 0.99 | 0.93 | 0.92 | CR123C109A |
| 1.12 | 1.09 | 1.04 | 1.02 | CR123C118A |
| 1.26 | 1.22 | 1.15 | 1.10 | CR123C131A |
| 1.40 | 1.31 | 1.27 | 1.23 | CR123C148A |
| 1.46 | 1.46 | 1.39 | 1.38 | CR123C163A |
| 1.63 | 1.59 | 1.55 | 1.49 | CR123C184A |
| 1.79 | 1.74 | 1.73 | 1.67 | CR123C196A |
| 1.97 | 1.93 | 1.89 | 1.79 | CR123C220A |
| 2.25 | 2.13 | 2.05 | 1.98 | CR123C239A |
| 2.43 | 2.37 | 2.28 | 2.24 | CR123C268A |
| 2.60 | 2.52 | 2.47 | 2.43 | CR123C301A |
| 2.96 | 2.87 | 2.79 | 2.75 | CR123C326A |
| 3.57 | 3.39 | 3.31 | 3.25 | CR123C356A |
| 3.86 | 3.59 | 3.70 | 3.43 | CR123C379A |
| 4.43 | 4.31 | 4.06 | 4.03 | CR123C419A |
| 4.87 | 4.57 | 4.47 | 4.43 | CR123C466A |
| 5.37 | 5.31 | 4.95 | 4.94 | CR123C526A |
| 5.99 | 5.86 | 5.49 | 5.36 | CR123C592A |
| 6.39 | 6.19 | 5.91 | 5.77 | CR123C630A |
| 6.87 | 6.61 | 6.47 | 6.35 | CR123C695A |
| 7.71 | 7.61 | 7.20 | 6.92 | CR123C778A |
| 8.72 | 8.46 | 8.22 | 7.99 | CR123C867A |
| 9.50 | 9.35 | 8.72 | 8.47 | CR123C955A |
| 10.5 | 10.4 | 9.67 | 9.19 | CR123C104B |
| 11.7 | 11.3 | 10.4 | 10.0 | CR123C113B |
| 12.2 | 11.9 | 11.0 | 10.7 | CR123C125B |
| 13.5 | 13.0 | 12.4 | 12.0 | CR123C137B |
| 15.1 | 14.5 | 13.2 | 12.9 | CR123C151B |
| 17.5 | 17.4 | 15.4 | 15.1 | CR123C163B |
| 18.9 | 18.6 | 17.1 | 16.3 | CR123C180B |
| 20.8 | 20.5 | 18.1 | 17.9 | CR123C198B |
| 22.4 | 22.3 | 20.0 | 19.7 | CR123C214B |
| 25.5 | 24.7 | 21.5 | 21.2 | CR123C228B |
| 26.2 | 25.7 | 22.5 | 22.3 | CR123C250B |
| 27.0 | 27.0 | 23.9 | 23.5 | CR123C273B |
| — | — | 26.3 | 25.5 | CR123C303B |
| — | — | 27.0 | 27.0 | CR123C330B |

NEMA Size 1P

| Maximum Motor Full-Load Amperes | | Heater Product Number |
|---------------------------------|------|-----------------------|
| A | B | |
| 14.2 | 14.2 | CR123C151B |
| 17.3 | 17.3 | CR123C163B |
| 18.7 | 18.7 | CR123C180B |
| 20.6 | 20.6 | CR123C198B |
| 22.5 | 22.5 | CR123C214B |
| 24.7 | 24.7 | CR123C228B |
| 25.5 | 25.5 | CR123C250B |
| 26.7 | 26.7 | CR123C273B |
| 27.9 | 27.9 | CR123C303B |
| 32.1 | 32.1 | CR123C330B |
| 36.0 | 36.0 | CR123C366B |

NEMA Size 2

| Maximum Motor Full-Load Amperes | | | | Heater Product Number |
|---------------------------------|------|------|------|-----------------------|
| A | B | C | D | |
| 5.92 | 5.79 | — | — | CR123C592A |
| 6.23 | 6.12 | 5.85 | 5.72 | CR123C630A |
| 6.63 | 6.49 | 6.47 | 6.30 | CR123C695A |
| 7.72 | 7.59 | 7.35 | 7.04 | CR123C778A |
| 8.96 | 8.71 | 8.06 | 7.91 | CR123C867A |
| 9.92 | 9.19 | 9.03 | 8.80 | CR123C955A |
| 10.4 | 10.1 | 9.61 | 9.27 | CR123C104B |
| 11.7 | 11.2 | 10.5 | 9.99 | CR123C113B |
| 12.1 | 11.9 | 11.6 | 11.1 | CR123C125B |
| 13.5 | 12.6 | 12.5 | 12.1 | CR123C137B |
| 14.7 | 14.5 | 13.6 | 13.1 | CR123C151B |
| 18.3 | 17.7 | 16.7 | 15.5 | CR123C163B |
| 20.1 | 19.1 | 17.9 | 16.8 | CR123C180B |
| 22.3 | 21.4 | 18.7 | 18.0 | CR123C198B |
| 25.0 | 22.9 | 20.4 | 19.7 | CR123C214B |
| 27.7 | 24.7 | 22.7 | 21.6 | CR123C228B |
| 29.3 | 25.9 | 24.7 | 23.9 | CR123C250B |
| 30.7 | 27.1 | 26.3 | 25.5 | CR123C273B |
| 32.7 | 30.2 | 29.5 | 28.2 | CR123C303B |
| 35.6 | 34.8 | 32.5 | 31.6 | CR123C330B |
| 39.4 | 38.7 | 36.7 | 34.7 | CR123C366B |
| 45.0 | 45.0 | 41.9 | 37.8 | CR123C400B |
| — | — | 43.2 | 40.6 | CR123C440B |
| — | — | 45.0 | 45.0 | CR123C460B |



Product Number Selection Instructions: See page 1-153

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Motor Starter Heaters

Heater Selection

Section 1

| Product Number | List Price Each, GO-10H |
|----------------|-------------------------|
| CR123C (All) | \$9.00 |
| CR123F (All) | \$9.00 |

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

NEMA Size 3

| Maximum Motor Full-Load Amperes | | | | Heater Product Number |
|---------------------------------|------|------|------|-----------------------|
| A | B | C | D | |
| 20.2 | 19.4 | — | — | CR123F199B |
| 21.0 | 20.1 | — | — | CR123F218B |
| 21.8 | 21.1 | 19.3 | 18.4 | CR123F233B |
| 24.5 | 24.6 | 22.1 | 21.1 | CR123F243B |
| 25.7 | 25.2 | 23.4 | 22.1 | CR123F270B |
| 29.2 | 29.2 | 27.0 | 26.1 | CR123F300B |
| 33.5 | 32.8 | 29.1 | 28.0 | CR123F327B |
| 37.0 | 35.1 | 31.8 | 31.3 | CR123F357B |
| 39.2 | 38.4 | 33.9 | 33.3 | CR123F395B |
| 42.7 | 40.4 | 37.6 | 34.3 | CR123F430B |
| 45.7 | 45.7 | 41.9 | 40.9 | CR123F487B |
| 48.4 | 48.9 | 47.7 | 44.7 | CR123F567B |
| 54.9 | 54.7 | 52.1 | 51.0 | CR123F614B |
| 62.7 | 58.6 | 55.8 | 52.0 | CR123F658B |
| 67.5 | 63.4 | 59.7 | 55.4 | CR123F719B |
| 77.1 | 72.3 | 68.1 | 63.3 | CR123F772B |
| 81.5 | 76.6 | 71.5 | 66.1 | CR123F848B |
| 86.3 | 83.8 | 78.2 | 73.5 | CR123F914B |
| 90.0 | 90.0 | 87.5 | 82.2 | CR123F104C |
| — | — | 90.0 | 90.0 | CR123F114C |

NEMA Size 5

| Maximum Motor Full-Load Amperes | | Heater Product Number |
|---------------------------------|-----|-----------------------|
| C | D | |
| 118 | 115 | CR123C592A |
| 128 | 125 | CR123C630A |
| 138 | 135 | CR123C695A |
| 155 | 151 | CR123C778A |
| 168 | 164 | CR123C867A |
| 184 | 179 | CR123C955A |
| 200 | 195 | CR123C104B |
| 221 | 215 | CR123C113B |
| 237 | 231 | CR123C125B |
| 262 | 255 | CR123C137B |
| 270 | 270 | CR123C151B |

NEMA Size 4

| Maximum Motor Full-Load Amperes | | | Heater Product Number |
|---------------------------------|-------|-------|-----------------------|
| C | D | E | |
| 32.2 | 32.0 | 32.0 | CR123F357B |
| 34.0 | 34.2 | 34.2 | CR123F395B |
| 36.8 | 36.7 | 36.7 | CR123F430B |
| 44.6 | 43.9 | 43.9 | CR123F487B |
| 48.4 | 46.6 | 46.6 | CR123F567B |
| 53.9 | 52.6 | 52.6 | CR123F614B |
| 57.4 | 55.6 | 55.6 | CR123F658B |
| 60.0 | 58.7 | 58.7 | CR123F719B |
| 69.5 | 67.1 | 67.1 | CR123F772B |
| 71.7 | 70.6 | 70.6 | CR123F848B |
| 79.9 | 76.3 | 76.3 | CR123F914B |
| 92.3 | 88.7 | 88.7 | CR123F104C |
| 97.0 | 93.4 | 93.4 | CR123F114C |
| 108.0 | 102.0 | 105.0 | CR123F118C |
| 118.0 | 110.0 | 114.0 | CR123F133C |
| 131.0 | 122.0 | 128.0 | CR123F149C |
| 135.0 | 131.0 | 131.0 | CR123F161C |
| — | 135.0 | 135.0 | CR123F174C |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Motor Starter Heaters

Heater Selection

Section 1

Heater Tables—NEMA Sizes 6-9

Information shown in tables for full voltage starters can be used by customer to select heaters for Size 6-9 combination starters also. However, for these combination forms, the factory will verify selection and install the required heaters based on available motor data.

| Product | |
|--------------|--------|
| CR123C (All) | \$9.00 |
| CR123F (All) | \$9.00 |

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

NEMA Sizes 6-9

| CR306HH—Size 6 Three Heaters Required | | CR386J—Size 7 Three Heaters Required | | CR386K—Size 8 Three Heaters Required | | CR386L—Size 9 Three Heaters Required | |
|--|-----------------------|---|-----------------------|---|-----------------------|---|-----------------------|
| Maximum Motor Amperes | Heater Product Number | Maximum Motor Amperes | Heater Product Number | Maximum Motor Amperes | Heater Product Number | Maximum Motor Amperes | Heater Product Number |
| 197 | CR123C220A | 387 | CR123C326A | 516 | CR123C301A | 1075 | CR123C301A |
| 214 | CR123C239A | 461 | CR123C356A | 580 | CR123C326A | 1210 | CR123C326A |
| 238 | CR123C268A | 515 | CR123C379A | 690 | CR123C356A | 1440 | CR123C356A |
| 258 | CR123C301A | 565 | CR123C419A | 772 | CR123C379A | 1610 | CR123C379A |
| 290 | CR123C326A | 622 | CR123C466A | 846 | CR123C419A | 1765 | CR123C419A |
| 346 | CR123C356A | 688 | CR123C526A | 934 | CR123C466A | 1950 | CR123C466A |
| 387 | CR123C379A | 763 | CR123C592A | 1030 | CR123C526A | 2150 | CR123C526A |
| 424 | CR123C419A | 810 | CR123C630A | 1147 | CR123C592A | 2250 | CR123C592A |
| 467 | CR123C466A | | | 1215 | CR123C630A | | |
| 516 | CR123C526A | | | | | | |
| 540 | CR123C592A | | | | | | |



Product Number Selection Instructions: See page 1-153

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Panel Mounted Overload Relay Heaters

Heater Selection

Overload Relays

For CR324 Standard and Ambient Compensated Block Overloads—Panel-Mounted

| Product Number | List Price Each, GO-10H |
|----------------|-------------------------|
| CR123C (All) | \$9.00 |
| CR123F (All) | \$9.00 |

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

| Three Heaters | | | | | |
|---------------------------------|-----------------------|---------------------|---------------------------------|-------------------------|---------------------|
| Maximum Motor Full-Load Amperes | Heater Product Number | Maximum Fuse Rating | Maximum Motor Full-Load Amperes | Heater Product Number | Maximum Fuse Rating |
| CR324C (Size 0, 1) | | | | | |
| 0.39 | CR123C054A | 3 | 3.89 | CR123C466A | 15 |
| 0.42 | CR123C060A | 3 | 4.30 | CR123C526A | 15 |
| 0.45 | CR123C066A | 3 | 4.77 | CR123C592A | 15 |
| 0.51 | CR123C071A | 3 | 5.14 | CR123C630A | 20 |
| 0.56 | CR123C078A | 3 | 5.63 | CR123C695A | 20 |
| 0.65 | CR123C087A | 3 | 6.26 | CR123C778A | 25 |
| 0.73 | CR123C097A | 3 | 7.15 | CR123C867A | 25 |
| 0.81 | CR123C109A | 3 | 7.58 | CR123C955A | 30 |
| 0.90 | CR123C118A | 3 | 8.39 | CR123C104B | 30 |
| 1.00 | CR123C131A | 3 | 9.11 | CR123C113B | 35 |
| 1.10 | CR123C148A | 3 | 9.67 | CR123C125B | 35 |
| 1.21 | CR123C163A | 3 | 11.0 | CR123C137B | 40 |
| 1.35 | CR123C184A | 3 | 11.9 | CR123C151B | 45 |
| 1.50 | CR123C196A | 6 | 14.3 | CR123C163B | 50 |
| 1.64 | CR123C220A | 6 | 16.1 | CR123C180B | 60 |
| 1.78 | CR123C239A | 6 | 17.2 | CR123C198B | 60 |
| 1.98 | CR123C268A | 6 | 19.2 | CR123C214B ¹ | 70 |
| 2.15 | CR123C301A | 6 | 20.6 | CR123C228B ¹ | 80 |
| 2.42 | CR123C326A | 6 | 21.8 | CR123C250B ¹ | 80 |
| 2.88 | CR123C356A | 10 | 23.4 | CR123C273B ¹ | 80 |
| 3.22 | CR123C379A | 12 | 26.1 | CR123C303B ¹ | 90 |
| 3.53 | CR123C419A | 12 | 27.0 | CR123C330B ¹ | 90 |
| CR324D (Size 2) | | | | | |
| 5.14 | CR123C630A | 20 | 8.39 | CR123C104B | 30 |
| 5.63 | CR123C695A | 20 | 9.11 | CR123C113B | 35 |
| 6.26 | CR123C778A | 20 | 9.67 | CR123C125B | 35 |
| 7.15 | CR123C867A | 25 | 11.0 | CR123C137B | 40 |
| 7.58 | CR123C955A | 30 | 12.0 | CR123C151B | 45 |
| 14.4 | CR123C163B | 60 | 28.0 | CR123C303B | 100 |
| 16.3 | CR123C180B | 60 | 32.1 | CR123C330B | 110 |
| 17.3 | CR123C198B | 60 | 35.9 | CR123C366B | 125 |
| 19.3 | CR123C214B | 70 | 41.5 | CR123C400B | 150 |
| 20.9 | CR123C228B | 80 | 43.4 | CR123C440B | 150 |
| 22.9 | CR123C250B | 90 | 45.0 | CR123C460B | 150 |
| 24.7 | CR123C273B | 90 | | | |

¹Size 1 only.

| Three Heaters | | | | | |
|---------------------------------|-----------------------|---------------------|---------------------------------|-----------------------|---------------------|
| Maximum Motor Full-Load Amperes | Heater Product Number | Maximum Fuse Rating | Maximum Motor Full-Load Amperes | Heater Product Number | Maximum Fuse Rating |
| CR324E (Size 3) | | | | | |
| 18.0 | CR123F233B | 70 | 44.4 | CR123F567B | 175 |
| 20.5 | CR123F243B | 80 | 48.4 | CR123F614B | 175 |
| 21.7 | CR123F270B | 80 | 52.4 | CR123F658B | 200 |
| 25.1 | CR123F300B | 90 | 57.0 | CR123F719B | 225 |
| 27.0 | CR123F327B | 100 | 64.5 | CR123F772B | 225 |
| 30.5 | CR123F357B | 110 | 68.8 | CR123F848B | 250 |
| 32.5 | CR123F395B | 125 | 75.7 | CR123F914B | 275 |
| 33.9 | CR123F430B | 125 | 86.2 | CR123F104C | 275 |
| 38.9 | CR123F487B | 150 | 90.0 | CR123F114C | 300 |
| CR324F (Size 4) | | | | | |
| 30.5 | CR123F357B | 100 | 68.6 | CR123F848B | 250 |
| 32.5 | CR123F395B | 125 | 75.7 | CR123F914B | 275 |
| 33.9 | CR123F430B | 125 | 86.2 | CR123F104C | 275 |
| 38.9 | CR123F487B | 150 | 93.0 | CR123F114C | 300 |
| 44.4 | CR123F567B | 175 | 109.0 | CR123F118C | 350 |
| 48.4 | CR123F614B | 175 | 123.0 | CR123F133C | 400 |
| 52.4 | CR123F658B | 200 | 131.0 | CR123F149C | 400 |
| 57.0 | CR123F719B | 225 | 135.0 | CR123F161C | 400 |
| 64.5 | CR123F772B | 225 | | | |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123C, CR123F Panel Mounted Overload Relay Heaters

Section 1

Heater Selection

Overload Relays

| Product | Price |
|--------------|--------|
| CR123K (All) | \$9.00 |
| CR123L (All) | \$9.00 |

All CR123C and 123F heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

| Maximum Motor Full-Load Amperes | Heater Product | Maximum Motor Full-Load Amperes | Heater Product Number | Maximum Motor Full-Load Amperes | Heater Product Number |
|---------------------------------|-------------------------|---------------------------------|-----------------------|--|-----------------------|
| For CR124C (Size 0, 1) | | For CR124D (Size 2) | | For CR124F (Size 4) | |
| 0.33 | CR123C036A | 6.63 | CR123C695A | 17.2 | CR123F181B |
| .37 | CR123C039A | 7.59 | CR123C778A | 19.0 | CR123F199B |
| .41 | CR123C043A | 8.39 | CR123C867A | 21.0 | CR123F218B |
| .46 | CR123C048A | 9.20 | CR123C955A | 22.9 | CR123F233B |
| .52 | CR123C054A | 9.93 | CR123C104B | 24.8 | CR123F243B |
| .57 | CR123C060A | 11.2 | CR123C113B | 27.2 | CR123F270B |
| .61 | CR123C066A | 12.5 | CR123C125B | 30.0 | CR123F300B |
| .67 | CR123C071A | 14.1 | CR123C137B | 33.0 | CR123F327B |
| .75 | CR123C078A | 15.5 | CR123C151B | 36.2 | CR123F357B |
| .84 | CR123C087A | 17.4 | CR123C163B | 40.0 | CR123F395B |
| .94 | CR123C097A | 19.8 | CR123C180B | 44.0 | CR123F430B |
| 1.03 | CR123C109A | 21.2 | CR123C198B | 49.6 | CR123F487B |
| 1.14 | CR123C118A | 22.7 | CR123C214B | 56.5 | CR123F567B |
| 1.30 | CR123C131A | 24.9 | CR123C228B | 64.2 | CR123F614B |
| 1.42 | CR123C148A | 27.3 | CR123C250B | 71.8 | CR123F658B |
| 1.61 | CR123C163A | 29.7 | CR123C273B | 76.4 | CR123F719B |
| 1.72 | CR123C184A | 33.2 | CR123C303B | 86.6 | CR123F772B |
| 1.93 | CR123C196A | 39.0 | CR123C330B | 94.7 | CR123F848B |
| 2.10 | CR123C220A | 45.0 | CR123C366B | 103 | CR123F914B |
| 2.34 | CR123C239A | For CR124E (Size 3) | | 115 | CR123F104C |
| 2.64 | CR123C268A | 17.2 | CR123F181B | 130 | CR123F114C |
| 2.86 | CR123C301A | 19.0 | CR123F199B | 135 | CR123F118C |
| 3.13 | CR123C326A | 21.0 | CR123F218B | For CR124G (Size 5)² | |
| 3.32 | CR123C356A | 22.9 | CR123F233B | 89 | CR123F395B |
| 3.68 | CR123C379A | 24.8 | CR123F243B | 93 | CR123F430B |
| 4.08 | CR123C419A | 27.2 | CR123F270B | 100 | CR123F487B |
| 4.61 | CR123C466A | 30.0 | CR123F300B | 110 | CR123F567B |
| 5.21 | CR123C526A | 33.0 | CR123F327B | 120 | CR123F614B |
| 5.62 | CR123C592A | 36.2 | CR123F357B | 132 | CR123F658B |
| 6.12 | CR123C630A | 40.0 | CR123F395B | 145 | CR123F719B |
| 6.83 | CR123C695A | 44.0 | CR123F430B | 160 | CR123F772B |
| 7.70 | CR123C778A | 48.4 | CR123F487B | 176 | CR123F848B |
| 8.48 | CR123C867A | 53.3 | CR123F567B | 191 | CR123F914B |
| 9.19 | CR123C955A | 58.6 | CR123F614B | 213 | CR123F104C |
| 9.92 | CR123C104B | 64.4 | CR123F658B | 237 | CR123F114C |
| 11.1 | CR123C113B | 71.3 | CR123F719B | 258 | CR123F118C |
| 12.2 | CR123C125B | 78.0 | CR123F772B | 270 | CR123F133C |
| 13.5 | CR123C137B | 86.0 | CR123F848B | | |
| 14.6 | CR123C151B | 90.0 | CR123F914B | | |
| 16.1 | CR123C163B | | | | |
| 17.9 | CR123C180B | | | | |
| 19.3 | CR123C198B ¹ | | | | |
| 20.6 | CR123C214B ¹ | | | | |
| 22.6 | CR123C228B ¹ | | | | |
| 24.8 | CR123C250B ¹ | | | | |
| 27.0 | CR123C273B ¹ | | | | |

¹For use on size 1 only.

²Two heaters required.

Product Number Selection Instructions: See page 1-153



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR123K, CR123L Panel Mounted Overload Relay Heaters

Section 1

Heater Selection Overload Relays

| Product | List Price Each, GO-10H |
|--------------|-------------------------|
| CR123K (All) | \$9.00 |
| CR123L (All) | \$9.00 |

Standard-Trip Overload Heaters

| Maximum Motor Full-Load Amperes | | | | | Heater Product Number |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------------|
| CR124K (Size 1) | CR124L (Size 2) | CR124M (Size 3) | CR124N (Size 4) | CR124P (Size 5) | |
| 1.07 | — | — | — | — | CR123K123A |
| 1.19 | — | — | — | — | CR123K135A |
| 1.31 | — | — | — | — | CR123K150A |
| 1.45 | — | — | — | — | CR123K165A |
| 1.59 | — | — | — | — | CR123K182A |
| 1.77 | — | — | — | — | CR123K200A |
| 1.98 | — | — | — | — | CR123K222A |
| 2.21 | — | — | — | — | CR123K249A |
| 2.40 | — | — | — | — | CR123K277A |
| 2.62 | — | — | — | — | CR123K301A |
| 2.89 | — | — | — | — | CR123K329A |
| 3.17 | — | — | — | — | CR123K362A |
| 3.49 | — | — | — | 69.4 | CR123K398A |
| 3.82 | — | — | — | 76.8 | CR123K438A |
| 4.21 | — | — | — | 84.7 | CR123K479A |
| 4.65 | 4.65 | — | — | 99.2 | CR123K527A |
| 5.13 | 5.13 | — | — | 108 | CR123K582A |
| 5.69 | 5.69 | — | — | 120 | CR123K642A |
| 6.32 | 6.32 | — | — | 133 | CR123K713A |
| 6.99 | 6.99 | — | — | 144 | CR123K791A |
| 7.69 | 7.69 | — | — | 156 | CR123K875A |
| 8.37 | 8.37 | — | — | 167 | CR123K963A |
| 9.13 | 9.13 | — | — | 177 | CR123K105B |
| 9.96 | 9.96 | — | — | 199 | CR123K114B |
| 10.8 | 10.8 | — | — | 219 | CR123K125B |
| 11.7 | 11.7 | — | — | 242 | CR123K136B |
| 12.9 | 12.9 | — | — | 267 | CR123K148B |
| 14.1 | 14.1 | — | — | 270 | CR123K163B |
| 15.4 | 15.4 | — | — | — | CR123K178B |
| 16.9 | 16.9 | — | — | — | CR123K194B |
| 18.8 | 18.8 | 20.1 | — | — | CR123K213B |
| 20.7 | 20.7 | 22.5 | — | — | CR123K236B |
| 22.9 | 22.9 | 24.8 | — | — | CR123K260B |
| 25.5 | 25.5 | 27.3 | — | — | CR123K288B |
| 27.0 | 28.1 | 30.5 | — | — | CR123K320B |
| — | 30.9 | 32.2 | — | — | CR123K352B |
| — | 32.9 | 34.6 | 35.2 | — | CR123K387B |
| — | 36.2 | 40.9 | 42.7 | — | CR123K425B |
| — | 40.0 | 43.6 | 45.2 | — | CR123K468B |
| — | 45.0 | 45.3 | 48.2 | — | CR123K515B |
| — | — | 50.3 | 55.2 | — | CR123K585B |
| — | — | 55.8 | 57.2 | — | CR123K650B |
| — | — | 61.2 | 67.5 | — | CR123K720B |
| — | — | 67.0 | 69.0 | — | CR123K790B |
| — | — | 72.8 | 74.7 | — | CR123K865B |
| — | — | 81.4 | 82.4 | — | CR123K940B |
| — | — | 90.0 | 90.7 | — | CR123K105C |
| — | — | — | 103 | — | CR123K118C |
| — | — | — | 113 | — | CR123K130C |
| — | — | — | 125 | — | CR123K143C |
| — | — | — | 133 | — | CR123K157C |

All CR123K and 123L heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.). Minimum order quantity is three.

For CR124 Single-Element Overloads—Not mounted directly on starters.

Quick-Trip Overload Heaters

| Maximum Motor Full-Load Amperes | | | | | Heater Product Number |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------------|
| CR124K (Size 1) | CR124L (Size 2) | CR124M (Size 3) | CR124N (Size 4) | CR124P (Size 5) | |
| 1.53 | — | — | — | — | CR123L174A |
| 1.68 | — | — | — | — | CR123L193A |
| 1.84 | — | — | — | — | CR123L211A |
| 2.03 | — | — | — | — | CR123L232A |
| 2.25 | — | — | — | — | CR123L255A |
| 2.47 | — | — | — | — | CR123L282A |
| 2.73 | — | — | — | — | CR123L310A |
| 3.03 | — | — | — | — | CR123L343A |
| 3.35 | — | — | — | — | CR123L380A |
| 3.69 | — | — | — | 73.9 | CR123L420A |
| 4.07 | — | — | — | 81.6 | CR123L463A |
| 4.48 | — | — | — | 89.6 | CR123L510A |
| 4.93 | — | — | — | 99.2 | CR123L561A |
| 5.43 | 5.43 | — | — | 108 | CR123L618A |
| 5.99 | 5.99 | — | — | 119 | CR123L680A |
| 6.59 | 6.59 | — | — | 131 | CR123L750A |
| 7.27 | 7.27 | — | — | 144 | CR123L825A |
| 7.99 | 7.99 | — | — | 159 | CR123L910A |
| 8.87 | 8.87 | — | — | 177 | CR123L100B |
| 9.76 | 9.76 | — | — | 194 | CR123L111B |
| 10.7 | 10.7 | — | — | 215 | CR123L122B |
| 11.6 | 11.6 | — | — | 237 | CR123L135B |
| 13.1 | 13.1 | — | — | 263 | CR123L147B |
| 14.4 | 14.4 | — | — | 270 | CR123L165B |
| 15.8 | 15.8 | — | — | — | CR123L181B |
| 17.5 | 17.5 | — | — | — | CR123L199B |
| 19.2 | 19.2 | 21.7 | — | — | CR123L220B |
| 21.1 | 21.1 | 23.7 | — | — | CR123L241B |
| 23.3 | 23.3 | 25.0 | — | — | CR123L265B |
| 25.7 | 25.7 | 29.1 | — | — | CR123L293B |
| 27.0 | 28.0 | 29.9 | — | — | CR123L322B |
| — | 31.1 | 32.8 | — | — | CR123L352B |
| — | 32.9 | 34.9 | 34.2 | — | CR123L390B |
| — | 35.9 | 37.3 | 38.6 | — | CR123L426B |
| — | 41.5 | 42.9 | 45.4 | — | CR123L464B |
| — | 45.0 | 45.9 | 48.3 | — | CR123L520B |
| — | — | 50.3 | 54.0 | — | CR123L593B |
| — | — | 55.0 | 57.5 | — | CR123L650B |
| — | — | 61.0 | 62.6 | — | CR123L710B |
| — | — | 67.1 | 68.3 | — | CR123L787B |
| — | — | 73.6 | 75.6 | — | CR123L866B |
| — | — | 82.9 | 88.8 | — | CR123L950B |
| — | — | 90.0 | 100 | — | CR123L107C |
| — | — | — | 113 | — | CR123L126C |
| — | — | — | 123 | — | CR123L142C |
| — | — | — | 133 | — | CCR123L155C |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

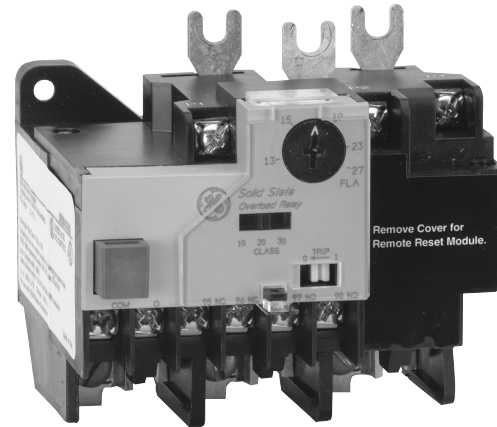
CR324X Solid State Overload Relays

For Panel Mounting
3-Pole, 600 VAC

Section 1

Technical Features

- 2:1 Adjustable full load amps with tactile feedback dial
- Selectable 10/20/30 protection class
- Ambient insensitive within the stated operating temperature range of -20° to +70°C
- Built-in thermal memory to prevent hot motor restarts
- Protection against complete phase current loss
- Manual reset (standard) and remote reset (optional) 120 VAC
- Accuracy: ± 2%
- Repeatability: ± 2%
- Self-powered @ 50% of minimum current range
- Size: 1-6 (0.40A-540A, 600 V, 50/60 Hz)
- Unbalance trip signal for PLC operation
- Manual trip
- Visual trip indication
- Standard isolated 1 NO and 1 NC aux. contact (A600, Q600)
- Built-in line/load straps
- Fits with existing 300-Line Starters
- Power factor correction terminals (sizes 1-4)
- DIN rail mountable sizes 1 & 2



CR324X Overload Relay (Panel-Mount)

Solid State Overload Relays for Panel Mounting (CR324X) – Contents

| | |
|-------------------------------|-------|
| Technical Features | 1-160 |
| Selection Instructions..... | 1-161 |
| Outlines and Dimensions | 1-163 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR324X Solid State Overload Relays

Section 1

For Panel Mounting
3-Pole, 600 VAC

Product Number Selection Instructions

1. Replace * in product number with appropriate digit from Full Load Current Selection Table below.

Solid State Overload Relays

| NEMA Size | Continuous Ampere Rating | Mounting Position | Product Number | List Price GO-10GS |
|-----------|--------------------------|-----------------------|--------------------------|-----------------------|
| 1 | 27 | Panel Mount | CR324CX*P | \$162.00 |
| 2 | 45 | Panel Mount | CR324DX*P | \$177.00 |
| 3, 4 | 90,135 | Panel Mount | CR324FX*P | \$255.00 |
| 1 | 27 | for MRO & Replacement | CR324CX*S | \$150.00 |
| 2 | 45 | for MRO & Replacement | CR324DX*S | \$165.00 |
| 3, 4 | 90,135 | for MRO & Replacement | CR324FX*S ^{1,2} | \$255.00 |
| 5 | 270 | for MRO & Replacement | CR324GX*S ³ | \$162.00 |
| 6 | 540 | for MRO & Replacement | CR324HX*K ⁴ | \$750.00 |
| 6 | 540 | for MRO & Replacement | CR324HX*S ⁵ | \$162.00 |

¹If Product No. digit "K" is selected from Full Load Current Selection Table, deduct \$55.00 from list price.

²Reset on CR324FX*S overloads is approximately 1" longer than on equivalent bimetal overloads. For GE 300-Line enclosures, perform the actions noted below:

| Enclosure Reset Extension Type | Adjustment Required |
|--------------------------------|--|
| Threaded Rod (standard) | Cut threaded shaft 1" and adjust for 1/8" gap. |
| "U" Style, 2 1/8" long | Replace extension with product number 55-512811G005. |
| "U" Style, 1 1/2" long | Replace extension with product number 55-512811G002. |

³CR324GX*S may be used as replacement for bimetal overload on size 5 starters. Use existing CTs.

⁴CR324HX*K kit must be used as solid-state replacement for bimetal overloads on size 6, since CT ratio changes, CTs included.

⁵CR324HX*S may be used as a replacement for existing solid-state overload on size 6. Use existing CTs.

Solid State Overload Relay Options

| Item | NEMA Size | Voltage | Product Number | List Price GO-10GS |
|---------------------|-----------|---------|----------------|-----------------------|
| Remote Reset | 1-6 | 120 VAC | CR324XRRM02 | \$32.00 |
| Panel Mount Adapter | 1 | N/A | CR324CXPMA | \$12.00 |
| | 2 | N/A | CR324DXPMA | \$12.00 |

Full Load Current Selection Table

For continuous rated motors, with a service factor of 1.15 to 1.25, select the heater with maximum motor Amperes equal to or immediately greater than the motor full-load current (provides a maximum of 125 percent protection). For continuous rated motors with no service factor, multiply the full-load current of the motor by 0.90 and use this value to select the heater.

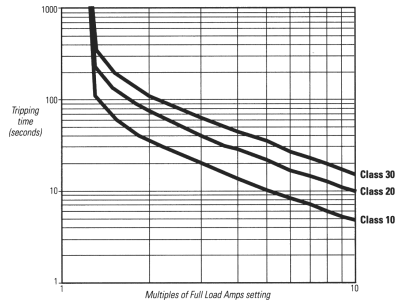
| Overload Range for Solid State Starters | NEMA Size | Fuse Max. | Breaker Max. | Insert Digit in Product Number |
|--|--------------|--------------|-----------------|-----------------------------------|
| 0.4-0.85 | 00-1 | 3 | 15 | C |
| 0.8-1.7 | 00-1 | 6 | 15 | D |
| 1.6-3.4 | 00-1 | 12 | 15 | E |
| 3.2-6.8 | 00-1 | 25 | 25 | F |
| 6.5-13.5 | 00-1 | 50 | 50 | G |
| 13-27 | 00-1 | 100 | 100 | H |
| 6.5-13.5 | 2 | 50 | 50 | G |
| 13-27 | 2 | 100 | 100 | H |
| 25-50 | 2 | 200 | 200 | J |
| 17-35 | 3 & 4 | 125 | 125 | K |
| 35-70 | 3 & 4 | 250 | 250 | L |
| 65-135 | 3 & 4 | 500 | 400 | M |
| 35-70 | 5 | | | N |
| 65-135 | 5 | 500 | 400 | P |
| 130-270 | 5 | 600 | 800 | Q |
| 130-270 | 6 | 1200 | 800 | S |
| 260-540 | 6 | 1200 | 800 | T |



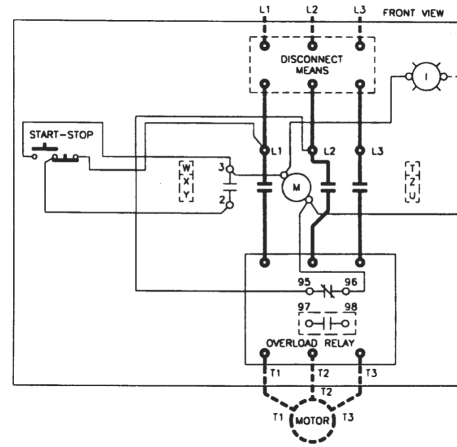
NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Magnetic CR324X Solid State Overload Relays

Section 1

For Panel Mounting
3-Pole, 600 VAC



Tripping Time (sec.) vs. Multiples of F.L.A. for
GE CR324X overload, cold state



Typical 3-Phase Diagram

Fusible Combination Starter Short Circuit Ratings

Fusible Combination Starters & CR324X Solid-State Overload Relays

| NEMA Size | Fuse Type | Maximum Symmetrical rms Amperes |
|-----------|----------------|---------------------------------|
| 0-3 | H, K | 5,000 at 600 V |
| 4, 5 | H, K | 10,000 at 600 V |
| 0-4 | J | 100,000 at 600 V |
| 0-4 | RK1, RK5 | 65,000 at 480 V |
| 5 | J, RK1, RK5 | 100,000 at 600 V |
| 6 | J, L, RK1, RK5 | 100,000 at 600 V |

CR324X Circuit Breaker Combination Starter Short Circuit Ratings

Circuit Breaker Combination Starters & CR324X Solid-State Overload Relays

| Breaker Type | Rating | NEMA Size | Maximum Symmetrical rms Amperes | | |
|--|---------|-----------|---------------------------------|-----------|-----------|
| | | | 240 Volts | 480 Volts | 600 Volts |
| TEB | 15-50 | 0 | 5,000 | — | — |
| | 15-70 | 1 | 5,000 | — | — |
| | 15-100 | 2 | 5,000 | — | — |
| | 25-150 | 3 | 5,000 | — | — |
| TEC Mag-Break® Breaker | 3-15 | 0 | 25,000 | 25,000 | 5,000 |
| | 3-15 | 1 | 25,000 | 25,000 | 5,000 |
| | 15-50 | 2 | 25,000 | 25,000 | 5,000 |
| | 30-100 | 3 | 25,000 | 25,000 | 5,000 |
| | 50-150 | 4 | 25,000 | 25,000 | 5,000 |
| TEC/TECL | 3-30 | 0 | 100,000 | 100,000 | 100,000 |
| | 3-50 | 1 | 100,000 | 100,000 | 100,000 |
| | 15-50 | 2 | 100,000 | 100,000 | 100,000 |
| | 30-100 | 3 | 100,000 | 100,000 | 100,000 |
| | 50-100 | 4 | 100,000 | 100,000 | 100,000 |
| TED | 15-50 | 0 | 5,000 | 5,000 | 5,000 |
| | 15-30 | 1 | 25,000 | 25,000 | 5,000 |
| | 35-70 | 1 | 5,000 | 5,000 | 5,000 |
| | 15-50 | 2 | 25,000 | 25,000 | 5,000 |
| | 60-100 | 2 | 5,000 | 5,000 | 5,000 |
| | 25-100 | 3 | 25,000 | 25,000 | 5,000 |
| TFJ, TFK & TFC THFK TJJ, TJK & TJC THJK | 110-150 | 3 | 5,000 | 5,000 | 5,000 |
| | 70-225 | 4 | 25,000 | 25,000 | 18,000 |
| | 70-225 | 4 | 25,000 | 25,000 | 18,000 |
| | 225-600 | 5 | 10,000 | 10,000 | 10,000 |
| | 225-400 | 5 | 35,000 | 35,000 | 25,000 |
| TKM, TKC THKMB TB6, TBC | 450-600 | 5 | 35,000 | 35,000 | 25,000 |
| | 300-800 | 6 | 42,000 | 42,000 | 22,000 |
| | 300-800 | 6 | 65,000 | 35,000 | 25,000 |
| | 300-800 | 6 | 65,000 | 65,000 | 42,000 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Magnetic

CR324X Solid State Overload Relays

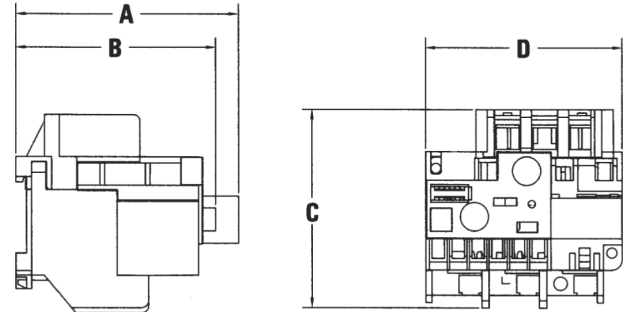
Section 1

For Panel Mounting
3-Pole, 600 VAC

Panel Mount

| Size | A* | B | C | D |
|------|------|------|------|------|
| 1 | 4.11 | 3.77 | 3.60 | 3.70 |
| 2 | 4.11 | 3.77 | 3.60 | 3.70 |
| 3 | 5.60 | 5.26 | 5.06 | 6.25 |
| 4 | 5.60 | 5.26 | 5.06 | 6.25 |

*If used

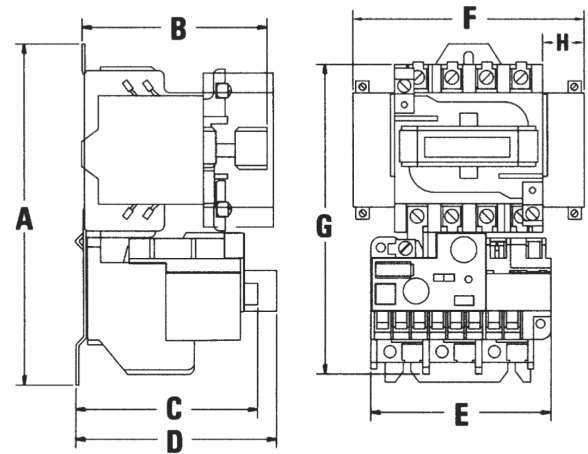


Panel Mount

Open NEMA Starter

| Size | A | B | C | D* | E | F* | G | H* |
|------|-------|------|------|------|------|------|-------|-----|
| 1 | 7.00 | 3.63 | 3.94 | 3.92 | 3.70 | 4.76 | 6.50 | .84 |
| 2 | 9.12 | 4.57 | 5.50 | 4.91 | 3.70 | 5.44 | 8.50 | .84 |
| 3 | 11.62 | 5.32 | 6.50 | 5.66 | 6.24 | 7.50 | 10.62 | .88 |
| 4 | 11.62 | 5.32 | 6.50 | 5.66 | 6.24 | 7.50 | 10.62 | .88 |

*If used



Open NEMA Starter

Current Ranges Available

| | 0.4- 0.85 | 0.8- 1.7 | 1.6- 3.4 | 3.2- 6.8 | 6.5- 13.5 | 13- 27 | 25- 50 | 17- 35 | 35- 70 | 65- 135 | 130- 270 | 260- 540 |
|---------|--------------|-------------|-------------|-------------|--------------|-----------|-----------|-----------|-----------|------------|-------------|-------------|
| Size 1 | √ | √ | √ | √ | √ | | | | | | | |
| Size 2 | | | | | √ | √ | √ | | | | | |
| Size 3* | | | | | | | | √ | √ | √* | | |
| Size 4 | | | | | | | | √ | √ | √ | | |
| Size 5 | | | | | | | | | | √ | √ | |
| Size 6 | | | | | | | | | | | √ | √ |

*Size 3, 90 amps max.

Outline Drawings

| NEMA Size | Pub. # |
|-----------|-----------|
| 1 | 55-534723 |
| 2 | 55-216101 |
| 3 | 55-216103 |
| 4 | 55-216103 |
| 5 | 55-194095 |
| 6 | 55-194096 |

For modified starters: Refer to DEU-005, or price as a similar standard starter and include adder from page 1-128 and change discount to GO-10GS.

Reference Publications

| | |
|--|------------------|
| UL File E103664 | CAS File LR30821 |
| Publication | DEP-058 |
| Order Motor Starter publications from Section 16 | |
| Instructions - NEMA Size 1, 2 | GEH-6430 |
| Instructions - NEMA Size 3, 4 | GEH-6431 |
| Instructions - NEMA Size 5, 6 | GEH-6432 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Manual

CR101H, CR101Y

Single-Phase

1 Hp Maximum @ 115V or 230V

3/4 Hp Maximum @ 277V for 2-pole Forms

25-60 Hz

The CR101H and CR101Y manual motor starters provide dependable overload protection for single-phase motors up to one horsepower (115 or 230 Volts), and are the most economical starter choices where undervoltage protection is not required.

CR1062 series of manual starters are designed for infrequent starting of single-phase and polyphase motors up to ten horsepower on applications where they can be directly operated.

Application

Designed for starting and stopping single-phase motors up to 10 HP. These manual starters have provision for overload protection and their low cost provides economical starter selection for applications where no undervoltage protection is required. This line of starters may be used on such equipment as grinders, conveyors, fans, mixers, and blowers.

Features

- Terminal design; box terminals provide easy access for wiring.
- Molded plastic switch housing; protects starter mechanism.
- Small size; open starter fits GEM™ or handy box.

Product Number Selection Instructions

Order starter by complete product number and specify overload heater as a separate item by complete product number.

Examples:

1. A general-purpose enclosed starter for surface wall mounting is desired. The starter is to break both lines. Motor to be started with this device has a full-load current of 0.6 Ampere.
Order:
1 CR101H1 manual motor starter at **\$45.00 each, GO-10G3**.
1 CR123H074A heater at **\$6.00 each, GO-10G3**.
2. The complete combination surface-mounted station, CR101H12, may also be ordered by components, e.g. order 1-CR101X10 flush plate, at **\$71.00 each, GO-10G3**; 1-CR101X14 box at **\$6.00 each, GO-10G3**; and 1-CR101H manual starter at **\$39.00 each, GO-10G3**. The other complete general-purpose manual starters may be broken down in this manner.

NEMA Rated Full Voltage Manual Starters – Contents

| | |
|---|-------|
| Application Information and Selection Instructions (CR101H, CR101Y) | 1-164 |
| Non-combination, Single Phase | 1-165 |
| Enclosure Components..... | 1-166 |
| Outlines and Dimensions (CR101H, CR101Y)..... | 1-167 |
| Application Information and Selection Instructions (CR1062) | 1-168 |
| Single-Phase and Polyphase..... | 1-169 |
| Outlines and Dimensions (CR1062)..... | 1-171 |
| Manual Starter Heaters for Single-phase and Polyphase | 1-172 |

Section 1



Open Starter



Manual Starter in NEMA Type 1 General Purpose Enclosure



NEMA Type 4 Water- and Dust-Tight Manual Starter



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual

Section 1

CR101H, CR101Y

Single-Phase

Non-combination

1 HP Maximum at 115 or 230 Volts

3/4 HP Maximum at 277 Volts for 2 pole forms

25 to 60 Hz

CR101H, CR101Y

Open starters include an unmounted nameplate. List prices do not include heater(s). Heaters can be selected from the table at right and ordered as a separate item at **\$6.00 each, GO-10H**.

One heater is required per starter (two for 2-speed forms and for combination starter CR101H13).

Toggle-Operated Nonreversing Open¹

| No. of Poles | Product Number | List Price GO-10G3 |
|--------------|---------------------|--------------------|
| 1 | CR101Y ² | \$33.00 |
| 2 | CR101H ² | \$39.00 |

¹For flush or outlet box mounting.

²Units are individually boxed and "Poly-Packed" 10 per carton as standard.

Toggle-Operated Nonreversing Enclosed NEMA Type 1³

| No. of Poles | Indicating Light | Product Number | List Price GO-10G3 |
|--------------|------------------|-----------------------|--------------------|
| 1 | No | CR101Y1 ² | \$39.00 |
| 2 | No | CR101H1 ² | \$45.00 |
| 1 | Yes | CR101Y11 ⁴ | \$57.00 |
| 2 | Yes | CR101H11 ⁴ | \$63.00 |

²Units are individually boxed and "Poly-Packed" 10 per carton as standard.

³Surface mounting.

⁴Includes a 115/230-Volt neon lamp(s). Not available at 277 Volts.

Lever-Operated Nonreversing Enclosed NEMA Type 3/4/12

| No. of Poles | Hubs | Product Number | List Price GO-10G3 |
|--------------|---------------------------|----------------|--------------------|
| 1 | 3/4-inch Hub on One End | CR101Y400H | \$138.00 |
| 2 | 3/4-inch Hub on One End | CR101H400H | \$144.00 |
| 1 | 3/4-inch Hub on Both Ends | CR101Y400J | \$150.00 |
| 2 | 3/4-inch Hub on Both Ends | CR101H400J | \$156.00 |

Multi-speed Enclosed NEMA Type 1 Surface Mount

| No. of Poles | Indicating Light | Product Number | List Price GO-10G3 |
|--------------|------------------|-------------------------|--------------------|
| 1 | None | CR101Y600B | \$172.00 |
| 1 | Two | CR101Y610B ⁴ | \$255.00 |
| 2 | None | CR101H600B | \$187.00 |
| 2 | Two | CR101H610B ⁴ | \$270.00 |

⁴Includes a 115/230-Volt neon lamp(s). Not available at 277 Volts.

Multi-speed Enclosed NEMA Type 1 Gray Flush-Plate

| No. of Poles | Indicating Light | Product Number | List Price GO-10G3 |
|--------------|------------------|-------------------------|--------------------|
| 1 | None | CR101Y600A | \$165.00 |
| 1 | Two | CR101Y610A ⁴ | \$247.00 |
| 2 | None | CR101H600A | \$180.00 |
| 2 | Two | CR101H610A ⁴ | \$262.00 |

⁴Includes a 115/230-Volt neon lamp(s). Not available at 277 Volts.

Multi-speed Enclosed NEMA Type 1 Stainless-Steel Flush-Plate

| No. of Poles | Indicating Light | Product Number | List Price GO-10G3 |
|--------------|------------------|-------------------------|--------------------|
| 1 | None | CR101Y608A | \$172.00 |
| 1 | Two | CR101Y618A ⁴ | \$255.00 |
| 2 | None | CR101H608A | \$187.00 |
| 2 | Two | CR101H618A ⁴ | \$270.00 |

⁴Includes a 115/230-Volt neon lamp(s). Not available at 277 Volts.

Combination Device Enclosed NEMA Type 1

| No. of Poles | Description | Product Number | List Price GO-10G3 |
|--------------|------------------------|----------------|--------------------|
| 2 | CR101H + Base Unit HOA | CR101H12 | \$102.00 |
| 2 | 2 (CR101H) | CR101H13 | \$108.00 |

Overload Heater Units for CR101H, Y

All CR123H heaters are packaged as single units.

| Product Number | List Price Each, GO-10H |
|----------------|-------------------------|
| CR123H (all) | \$6.00 |

The table below gives a proper size heater to trip the switch on approximately 125 percent motor current.

Listed values are for motors with 1.15-1.25 service factor. For motors with 1.0 service factor continuously, multiply full-load current of motor by 0.9 and use this value to select heater. Contact nearest GE Representative for recommendation on heaters to be used with definite-purpose motors. If motor full-load Amperes falls between two ratings, select heater for the highest of those two.

For 1.35 service factor motors, multiply full-load current of motor by 1.15 and use this value to select heater(s).

| Maximum Motor Full-Load Amperes | Heater Product Number |
|---------------------------------|-----------------------|
| .48 | CR123H055A |
| .53 | CR123H061A |
| .58 | CR123H067A |
| .65 | CR123H074A |
| .71 | CR123H082A |
| .78 | CR123H090A |
| .86 | CR123H099A |
| .95 | CR123H108A |
| 1.04 | CR123H120A |
| 1.14 | CR123H132A |
| 1.25 | CR123H144A |
| 1.37 | CR123H158A |
| 1.49 | CR123H172A |
| 1.63 | CR123H188A |
| 1.78 | CR123H205A |
| 1.95 | CR123H224A |
| 2.13 | CR123H245A |
| 2.32 | CR123H267A |
| 2.53 | CR123H291A |
| 2.76 | CR123H317A |
| 3.01 | CR123H346A |
| 3.27 | CR123H377A |
| 3.56 | CR123H410A |
| 3.88 | CR123H446A |
| 4.22 | CR123H486A |
| 4.60 | CR123H529A |
| 5.00 | CR123H575A |
| 5.43 | CR123H625A |
| 5.90 | CR123H680A |
| 6.41 | CR123H739A |
| 6.98 | CR123H802A |
| 7.60 | CR123H873A |
| 8.25 | CR123H950A |
| 8.95 | CR123H103B |
| 9.75 | CR123H112B |
| 10.6 | CR123H122B |
| 11.4 | CR123H132B |
| 12.5 | CR123H144B |
| 13.6 | CR123H157B |
| 14.8 | CR123H171B |
| 16.0 | CR123H186B |

Maximum Horsepower Ratings-AC or DC

Continuous Carry-16 Amperes

| Product Number | No. of Poles | Horsepower @ 32 V AC | Horsepower @ 115 V AC | Horsepower @ 230 V AC | Horsepower @ 277 V AC | Horsepower @ 115 V DC | Horsepower @ 230 V DC |
|----------------|--------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| CR101Y | 1 | 1/4 | 1 | 1 | — | 1 | 1/4 |
| CR101H | 2 | 1/4 | 1 | 1 | 3/4 | 1 | 1 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Starters - Manual

CR101H, CR101Y

Enclosure Components

Enclosure Components - Single Units

Flush plates painted gray or of stainless steel are available for flush mounting of all listed open manual starters.

Safety to maintenance personnel and operators and security to equipment is provided by locking attachment, CR101X3, for use on all toggle-operated manual starter forms.

Customers can assemble CR101H1, H11, Y1, or Y11 general-purpose manual starters by adding either an open CR101H or Y manual starter to a CR101X6 back and a CR101X4 or X5 cover.

| Product Description | Product Number | List Price GO-10G3 |
|---|----------------|-----------------------|
| Flush plate with 115/230-Volt indicating light and screws | CR101X1 | \$21.00 |
| Standard flush plate with screws | CR101X2 | \$3.00 |
| Locking attachment (lock not included) | CR101X3 | \$6.00 |
| Cover (front with 115/230-Volt neon indicating light and screws) | CR101X4 | \$21.00 |
| Standard cover (front with screws) | CR101X5 | \$3.00 |
| Enclosure back with screws (surface-mounting) | CR101X6 | \$3.00 |
| Stainless-steel flush plate with 115/230-Volt indicating light and screws | CR101X7 | \$24.00 |
| Stainless-steel flush plate with screws | CR101X8 | \$6.00 |

Combination Plates and Box

Customer convenience and flexibility is made possible by the availability of combination flush plates. These plates may be used flush mounted with a CR101X14 or other 2-1/2-inch deep, two gang boxes to make a general-purpose surface-mounted installation. Open manual starters must be ordered separately.

| Product Description | Product Number | List Price GO-10G3 |
|--|----------------|-----------------------|
| Combination flush plate with HAND-AUTO switch | CR101X10 | \$71.00 |
| Combination flush plate with HAND-AUTO switch and 115/230-Volt neon indicating light | CR101X11 | \$84.00 |
| Combination flush plate for 2—CR101 open starters | CR101X12 | \$30.00 |
| Combination flush plate for 2—CR101 open starters with 2—115/230-Volt neon indicating lights | CR101X13 | \$60.00 |
| Box (back) for combination forms | CR101X14 | \$6.00 |

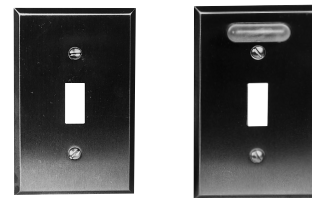
Section 1



CR101X4 Enclosure Components



CR101X6 Enclosure Components



CR101X8 and CR101X7
Stainless Steel Flush Plates



CR101X11 Enclosure Components



CR101X3 Locking Attachment



CR101X14 Combination Flush Plate
and Box (Back)



Product Number Selection Instructions: See page 1-164

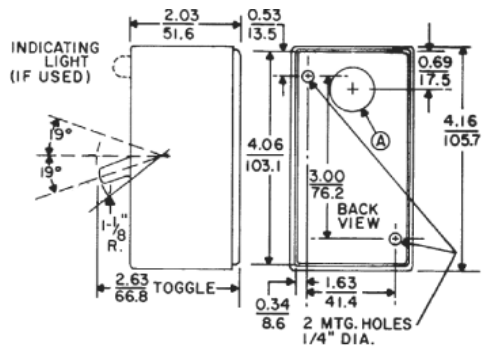
NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual

Section 1

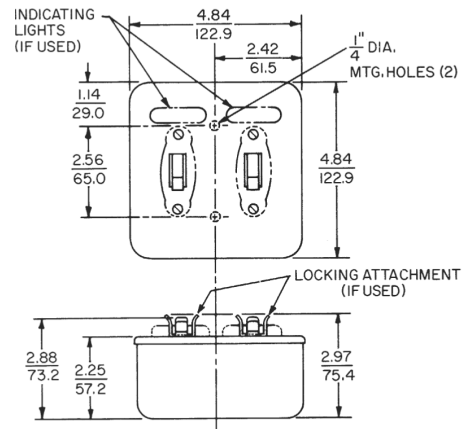
CR101H, CR101Y

CR101 Open, Types 1, 4

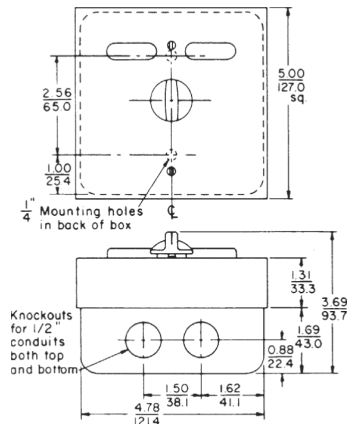
Outlines and Dimensions (in/mm), and Weights (For Estimating Only)



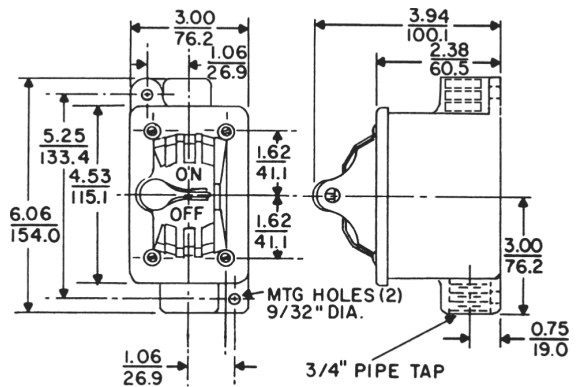
CR101 Manual Starter in Type 1 Enclosure, 2 lbs.



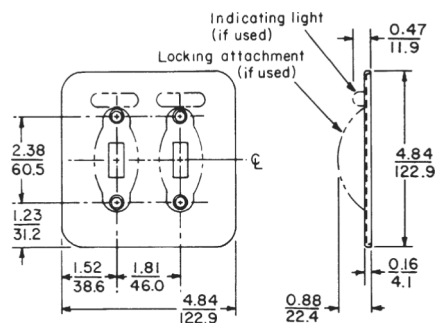
CR101H12 or CR101X13 Combination Starter, 4 lbs.



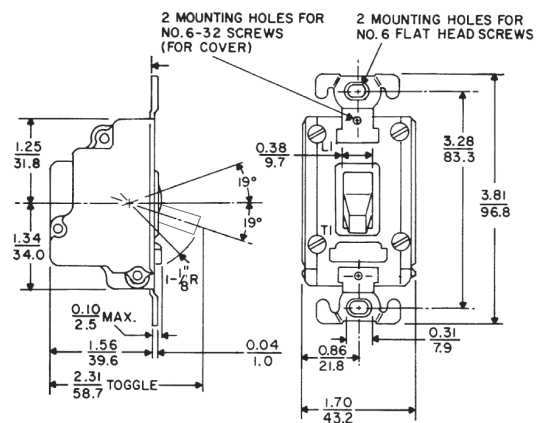
CR101 Two-Speed Manual Starter in Type 1 Enclosure, 3 lbs.



CR101 Manual Starter in Type 4 Enclosure, 4 lbs.



CR101X12 or CR101X13 Combination Flush Plate, 1 lb.



CR101 Manual Starter, Open Type, 1 lb.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual

Section 1

CR1062

Single-Phase and Polyphase

10 HP Maximum

600 Volts

25 to 60 Hertz

Application

Designed for controlling small ac motors. Standard CR1062R and S starter forms provide overload protection but cannot be used where undervoltage protection is required or for remote or automatic operation.

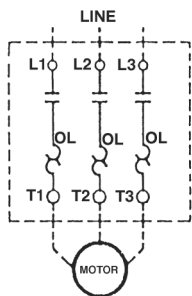
Features

- Front-connected; clamp-type terminals for easy wiring.
- Trip-free overload mechanism; can't be held closed.
- Knockout in enclosure cover permits installation of indicating light kit.

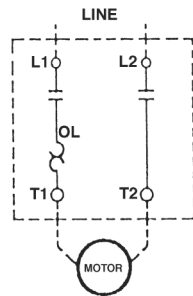
Product Number Selection Instructions

1. Devices may be ordered under the new easy-to-use product numbering system outlined on page 1-169. Customers may still use the original product numbering system for devices listed on page 1-170.
2. Select overload relay heaters from tables on page 1-172. Three heaters should be specified and ordered as separate items. **List Price \$9.00 each, GO-10H.** Packaged in quantities of three; must be ordered in multiples of three. Single-phase forms require one heater, four-pole forms require two heaters and three-pole forms require three heaters.

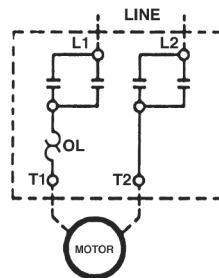
Schematic Diagrams



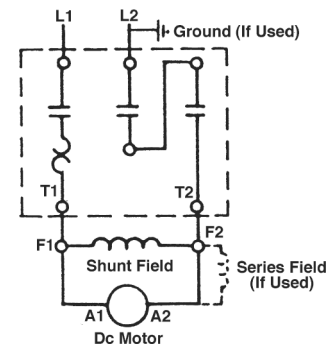
Typical 3-Phase
Connections CR1062R & S



Typical Single-Phase
Connections CR1062R & S



Typical Single-Phase
Connections CR1062T



Typical Connections
for DC Starters

Horsepower Ratings

| | | Maximum Horsepower Ratings | | | | | |
|--------|-----------|----------------------------------|-----------|-----------|----------|-----------|-------|
| | | Coil Motor Voltage and Frequency | | | | | |
| | | 60 Hertz | | | 50 Hertz | | |
| Phase | NEMA Size | 115 V | 200-208 V | 230-240 V | 277 V | 460-600 V | 380 V |
| Single | M-0 | 1 | — | 2 | 2 | — | — |
| | M-1 | 2 | — | 3 | 2 | — | — |
| | M-1P | 3 | — | 5 | 2 | — | — |
| Three | M-0 | — | 3 | 3 | — | 5 | 5 |
| | M-1 | — | 7-1/2 | 7-1/2 | — | 10 | 10 |

Reference Publications

Instructions

GEH-4737



Product Number Selection Instructions: See page 1-168

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual

Section 1

CR1062

Single-Phase and Polyphase

10 HP Maximum

600 Volts

25 to 60 Hertz

1 Select NEMA Size and Number of Poles

| NEMA Size | Number of Poles | Product No. Digits | List Price Adder, GO-10G3 |
|-----------|-----------------------------|--------------------|---------------------------|
| M-0 | Single-Phase DC (in series) | R1 | \$120.00 |
| | Single-Phase (AC) | R2 | \$99.00 |
| | 3-Pole Three-Phase | R3 | \$120.00 |
| M-1 | Single-Phase DC (in series) | S1 | \$150.00 |
| | Single-Phase (AC) | S2 | \$129.00 |
| | 3-Pole Three-Phase | S3 | \$150.00 |
| M-1P | Single-Phase DC (in series) | — | — |
| | Single-Phase AC in Parallel | T2 | \$195.00 |
| | 3-Pole Three-Phase | — | — |

2 Select Protection

| Protection | Single-Phase | | Three-Phase | |
|-------------------|-------------------|---------------------------|-------------------|---------------------------|
| | Product No. Digit | List Price Adder, GO-10G3 | Product No. Digit | List Price Adder, GO-10G3 |
| Standard Overload | A | \$0.00 | A | \$0.00 |
| Omit Overload | B | Deduct \$9.00 | B | Deduct \$24.00 |

Order heaters as a separate item from Heater Selection Tables, page 1-172.

3 Select Auxiliary Contacts

| Auxiliary Contacts | Size 0 | | Size 1 | | Size 1-P | |
|--------------------|-------------------|---------------------------|-------------------|---------------------------|-------------------|---------------------------|
| | Product No. Digit | List Price Adder, GO-10G3 | Product No. Digit | List Price Adder, GO-10G3 | Product No. Digit | List Price Adder, GO-10G3 |
| None | A | \$0.00 | A | \$0.00 | A | \$0.00 |
| 1 NO | B | \$60.00 | B | \$72.00 | B | \$72.00 |
| 2 NO | C | \$120.00 | C | \$144.00 | — | — |

Cannot have 2 auxiliary contacts with size 1-P device.

4 Select Type of Operator and Enclosure Type

| Type of Operator | Enclosure Class | Product No. Digit | List Price Adder, GO-10G3 |
|------------------|-----------------|-------------------|---------------------------|
| Push Button | Open | P1 | \$0.00 |
| | Type 1 | P2 | \$12.00 |
| | Type 3/12/13 | — | — |
| | Type 4/4X | — | — |
| | Flush Mounted | P5 | \$146.00 |
| Toggle Lever | Open | T1 | \$0.00 |
| | Type 1 | T2 | \$12.00 |
| | Type 3/12/13 | T3 | \$54.00 |
| | Type 4/4X | T4 | \$246.00 |
| | Flush Mounted | T5 | \$146.00 |

No hubs installed on Types 1, 3, 12, and 13 enclosures. 3/4-inch hubs standard on Type 4X enclosures.

5 Select Indicating Light Option

| | Product No. Digit | | | |
|-------------------------|-------------------|---------------------------|----------------------------------|---------------------------|
| | Type 1 Enclosure | List Price Adder, GO-10G3 | Type 3/12/13 and 4/4X Enclosures | List Price Adder, GO-10G3 |
| No Indicating Light | 00 | \$0.00 | 00 | \$0.00 |
| 120 V/60 Hz 100 V/50 Hz | 02 | \$48.00 | 02 | \$162.00 |
| 240 V/60 Hz 220 V/50 Hz | 03 | \$48.00 | 03 | \$162.00 |
| 480 V/60 Hz 440 V/50 Hz | 04 | \$48.00 | 04 | \$162.00 |
| 600 V/60 Hz | 05 | \$48.00 | 05 | \$162.00 |

6 Select Indicating Light Color

| Indicating Light Color | Product No. Digit |
|------------------------|-------------------|
| No Indicating Light | Ø |
| Red Light | R |
| Green Light | G |

Enclosure Kits

| Description | Product Number | List Price, GO-10G3 |
|--|----------------|---------------------|
| Type 1 Enclosure for Toggle-Operated 2- to 4-Pole Starters | CR1062X9 | \$12.00 |
| Type 1 Enclosure for Push Button-Operated 2- to 4-Pole Starters | CR1062X10 | \$12.00 |
| Type 3/12/13 Enclosure (no hubs) Toggle Devices Only | CR1062X28 | \$54.00 |
| Type 4X Enclosure (with hubs) Toggle Devices Only | CR1062X23 | \$246.00 |
| Type 1 Flush-Mounted Enclosure for Toggle-Operated Starters | CR1062X30 | \$146.00 |
| Type 1 Flush-Mounted Enclosure for Push Button-Operated Starters | CR1062X31 | \$146.00 |

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| C | R | 1 | 0 | 6 | 2 | |

Example: CR1062S3ABT302R is a Size M-1 three-phase starter with overload protection, 1NO auxiliary contact and toggle operation in a NEMA Type 3/12/13 enclosure with a red 120V indicating light at \$150.00 + 72.00 + 54.00 + 162.00 = \$438.00 each.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual

Section 1

CR1062

Single-Phase and Polyphase

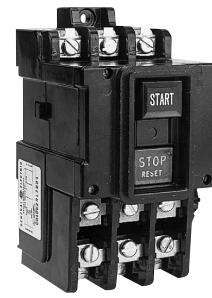
10 HP Maximum

600 Volts

25 to 60 Hertz

Across-the-Line Forms, Surface-Mounted

Single-phase starters require one heater. Three-phase nonreversing starters require three heaters. Specify quantity and order as separate items. **List Price \$9.00 each, GO-10H.** Packaged in quantities of three; must be ordered in multiples of three. Select heater(s) from tables on page 1-172. No hubs installed on Types 1, 3R, 12, and 13 enclosures. 3/4-inch hubs standard on Type 4X enclosures.



Open Type

Open

| NEMA Size | Motor Type | Operator Type | Product Number | List Price GO-10G3 |
|-----------|--------------|---------------|-----------------|-----------------------|
| M-0 | Single Phase | Push Button | CR1062R2AAP1000 | \$99.00 |
| M-1 | Single Phase | Push Button | CR1062S2AAP1000 | \$129.00 |
| M-1P | Single Phase | Push Button | CR1062T2AAP1000 | \$195.00 |
| M-0 | Three Phase | Push Button | CR1062R3AAP1000 | \$120.00 |
| M-1 | Three Phase | Push Button | CR1062S3AAP1000 | \$150.00 |
| M-0 | Single Phase | Toggle | CR1062R2AAT1000 | \$99.00 |
| M-1 | Single Phase | Toggle | CR1062S2AAT1000 | \$129.00 |
| M-1P | Single Phase | Toggle | CR1062T2AAT1000 | \$195.00 |
| M-0 | Three Phase | Toggle | CR1062R3AAT1000 | \$120.00 |
| M-1 | Three Phase | Toggle | CR1062S3AAT1000 | \$150.00 |

Enclosed NEMA Type 1

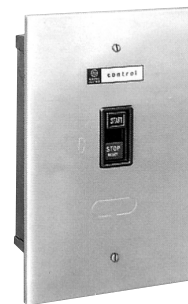
| NEMA Size | Motor Type | Operator Type | Product Number | List Price GO-10G3 |
|-----------|--------------|---------------|-----------------|-----------------------|
| M-0 | Single Phase | Push Button | CR1062R2AAP2000 | \$111.00 |
| M-1 | Single Phase | Push Button | CR1062S2AAP2000 | \$141.00 |
| M-1P | Single Phase | Push Button | CR1062T2AAP2000 | \$207.00 |
| M-0 | Three Phase | Push Button | CR1062R3AAP2000 | \$132.00 |
| M-1 | Three Phase | Push Button | CR1062S3AAP2000 | \$162.00 |
| M-0 | Single Phase | Toggle | CR1062R2AAT2000 | \$111.00 |
| M-1 | Single Phase | Toggle | CR1062S2AAT2000 | \$141.00 |
| M-1P | Single Phase | Toggle | CR1062T2AAT2000 | \$207.00 |
| M-0 | Three Phase | Toggle | CR1062R3AAT2000 | \$132.00 |
| M-1 | Three Phase | Toggle | CR1062S3AAT2000 | \$162.00 |



Type 1 Surface Mounting

Enclosed NEMA Type 3R/12/13

| NEMA Size | Motor Type | Operator Type | Product Number | List Price GO-10G3 |
|-----------|--------------|---------------|-----------------|-----------------------|
| M-0 | Single Phase | Toggle | CR1062R2AAT3000 | \$153.00 |
| M-1 | Single Phase | Toggle | CR1062S2AAT3000 | \$183.00 |
| M-1P | Single Phase | Toggle | CR1062T2AAT3000 | \$249.00 |
| M-0 | Three Phase | Toggle | CR1062R3AAT3000 | \$174.00 |
| M-1 | Three Phase | Toggle | CR1062S3AAT3000 | \$204.00 |



Type 1 Flush Mounting

Enclosed NEMA Type 4/4X

| NEMA Size | Motor Type | Operator Type | Product Number | List Price GO-10G3 |
|-----------|--------------|---------------|-----------------|-----------------------|
| M-0 | Single Phase | Toggle | CR1062R2AAT4000 | \$345.00 |
| M-1 | Single Phase | Toggle | CR1062S2AAT4000 | \$375.00 |
| M-1P | Single Phase | Toggle | CR1062T2AAT4000 | \$441.00 |
| M-0 | Three Phase | Toggle | CR1062R3AAT4000 | \$366.00 |
| M-1 | Three Phase | Toggle | CR1062S3AAT4000 | \$396.00 |



Type 4-4X

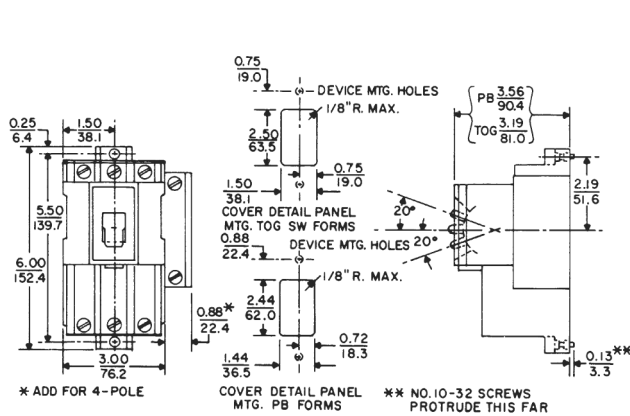


NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual CR1062

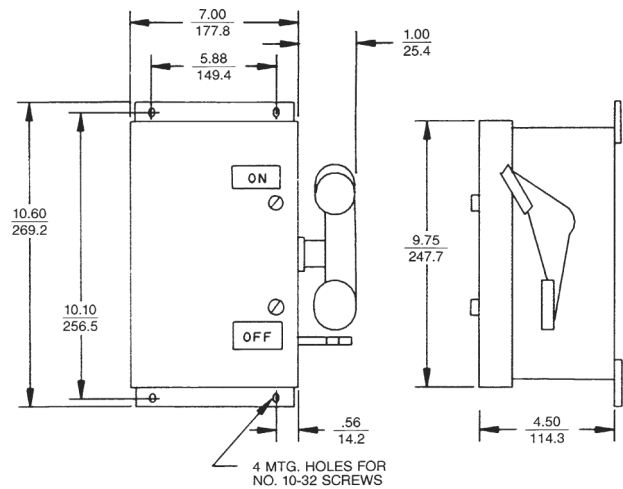
Standard

Outlines and Dimensions ($\frac{in}{mm}$), and Weights (For Estimating Only)

Section 1

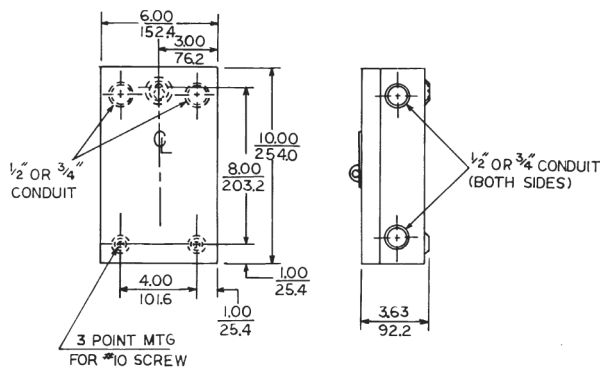


Open Type Toggle and Push Button Operated, NEMA Sizes M-0 and M-1; 2-, 3- and 4-Pole;
Approximate shipping weight 2 1/2 lbs.

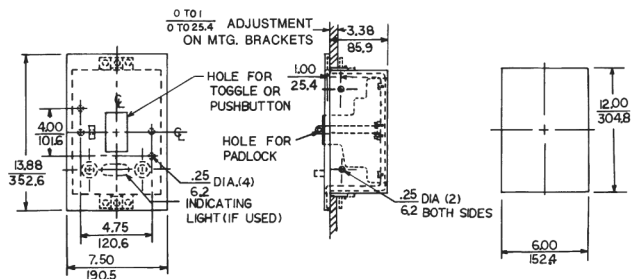


NEMA Type 3/12/13/4/4X Enclosure, NEMA Sizes M-0, M-1 and M-1P; 2-, 3- and 4-Pole;
Approximate shipping weight 6 lbs.

M-1P meets 1984 Wire Bending Space Requirements.



NEMA Type 1 Enclosure, NEMA Sizes M-0, M-1 and M-1P; 2-, 3- and 4-Pole;
Approximate shipping weight 4 1/2 lbs.



NEMA Type 1 Flush-Mounted Enclosure



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual CR1062

Heaters

Manual Starters—Single-Phase and Polyphase

Section 1

How To Select Heaters

Select proper Maximum Motor Full-Load Motor Ampere table per size, pole arrangement, and number of overload relays. One heater is required for each overload relay. If motor full-load amperes falls between two ratings, select heater for the higher rating.

The tables below give a proper size heater to trip the switch on approximately 125 percent motor current.

Listed values are for motors with 1.15-1.25 service factor. For motors with 1.0 service factor continuously, multiply full-load current of motor by 0.9 and use this value to select heater. Contact nearest GE Representative for recommendation for heaters to be used with definite-purpose motors.

For 1.35 service factor motors, multiply full-load current of motor by 1.15 and use this value to select heater(s).

Heater Ordering Information

All CR123C and 123R heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.) Minimum order quantity is three.

| Heater Product Number | List Price Each, GO-10H |
|-----------------------|-------------------------|
| CR123C,R (All) | \$9.00 |

Note: The National Electrical Code requires running overcurrent protection in all three lines of three-phase motors.

Heaters for CR1062R, CR1062S Starters

NEMA Sizes M-0, M-1, Single-Phase, One Overload

| Max. Motor Full-Load Amperes | General-Use Heater Product Number | Group Fusing Size M-0 Only ² | |
|------------------------------|-----------------------------------|---|----------------------------|
| | | Heater Product Number | Max. Fuse Rating 115-230 V |
| 0.34 | CR123C036A | CR123R036A | 60A |
| .37 | CR123C039A | CR123R039A | 60A |
| .42 | CR123C043A | CR123R043A | 60A |
| .47 | CR123C048A | CR123R048A | 60A |
| .52 | CR123C054A | CR123R054A | 60A |
| .57 | CR123C060A | CR123R060A | 60A |
| .63 | CR123C066A | CR123R066A | 60A |
| .69 | CR123C071A | CR123R071A | 60A |
| .77 | CR123C078A | CR123R078A | 60A |
| .87 | CR123C087A | CR123R087A | 60A |
| .97 | CR123C097A | CR123R097A | 60A |
| 1.06 | CR123C109A | CR123R109A | 60A |
| 1.18 | CR123C118A | CR123R118A | 60A |
| 1.33 | CR123C131A | CR123R131A | 60A |
| 1.47 | CR123C148A | CR123R148A | 60A |
| 1.66 | CR123C163A | CR123R163A | 60A |
| 1.78 | CR123C184A | CR123R184A | 60A |
| 2.00 | CR123C196A | CR123R196A | 60A |
| 2.18 | CR123C220A | CR123R220A | 60A |
| 2.45 | CR123C239A | CR123R239A | 60A |
| 2.76 | CR123C268A | CR123R268A | 60A |
| 3.00 | CR123C301A | CR123R301A | 60A |
| 3.27 | CR123C326A | CR123R326A | 60A |
| 3.49 | CR123C356A | CR123R356A | 100A |
| 3.86 | CR123C379A | CR123R379A | 100A |
| 4.30 | CR123C419A | CR123R419A | 100A |
| 4.88 | CR123C466A | CR123R466A | 100A |
| 5.49 | CR123C526A | CR123R526A | 100A |
| 5.85 | CR123C592A | CR123R592A | 100A |
| 6.45 | CR123C630A | CR123R630A | 100A |
| 7.22 | CR123C695A | CR123R695A | 100A |
| 8.05 | CR123C778A | CR123R778A | 100A |
| 8.88 | CR123C867A | CR123R867A | 100A |
| 9.66 | CR123C955A | CR123R955A | 100A |
| 10.5 | CR123C104B | CR123C104B | 100A |
| 11.6 | CR123C113B | CR123C113B | 100A |
| 12.7 | CR123C125B | CR123C125B | 100A |
| 13.2 | CR123C137B | CR123C137B | 100A |
| 15.1 | CR123C151B | CR123C151B | 100A |
| 16.6 | CR123C163B | CR123C163B | 100A |
| 17.6 | CR123C180B | CR123C180B | 100A |
| 19.8 ¹ | CR123C198B | — | — |
| 21.1 ¹ | CR123C214B | — | — |
| 23.1 ¹ | CR123C228B | — | — |
| 25.2 ¹ | CR123C250B | — | — |

¹Size M-1 only.

²Does not apply to NEMA Type 7 forms.

Reference Publications

Heater Selection Guide

GET-2681



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Starters - Manual CR1062

Section 1

Heaters

Manual Starters—Single-Phase and Polyphase

Heaters for CR1062R, CR1062S Starters

NEMA Sizes M-0, M-1, Three-Phase, Three Overloads

| Max. Motor Full-Load Amperes | General-Use Heater Product Number | Group Fusing Size M-0 Only ² | | | |
|------------------------------|-----------------------------------|---|------------------|-----------|--|
| | | Heater Product Number | Max. Fuse Rating | | |
| | | | 115-230 V | 460-600 V | |
| 0.29 | CR123C036A | CR123R036A | 60A | 30A | |
| .31 | CR123C039A | CR123R039A | 60A | 30A | |
| .34 | CR123C043A | CR123R043A | 60A | 30A | |
| .40 | CR123C048A | CR123R048A | 60A | 30A | |
| .44 | CR123C054A | CR123R054A | 60A | 30A | |
| .48 | CR123C060A | CR123R060A | 60A | 30A | |
| .52 | CR123C066A | CR123R066A | 60A | 30A | |
| .58 | CR123C071A | CR123R071A | 60A | 30A | |
| .64 | CR123C078A | CR123R078A | 60A | 30A | |
| .71 | CR123C087A | CR123R087A | 60A | 30A | |
| .81 | CR123C097A | CR123R097A | 60A | 30A | |
| .89 | CR123C109A | CR123R109A | 60A | 30A | |
| .98 | CR123C118A | CR123R118A | 60A | 30A | |
| 1.12 | CR123C131A | CR123R131A | 60A | 30A | |
| 1.22 | CR123C148A | CR123R148A | 60A | 30A | |
| 1.38 | CR123C163A | CR123R163A | 60A | 30A | |
| 1.48 | CR123C184A | CR123R184A | 60A | 30A | |
| 1.66 | CR123C196A | CR123R196A | 60A | 30A | |
| 1.80 | CR123C220A | CR123R220A | 60A | 30A | |
| 2.03 | CR123C239A | CR123R239A | 60A | 30A | |
| 2.28 | CR123C268A | CR123R268A | 60A | 30A | |
| 2.47 | CR123C301A | CR123R301A | 60A | 30A | |
| 2.71 | CR123C326A | CR123R326A | 60A | 30A | |
| 2.87 | CR123C356A | CR123R356A | 60A | 30A | |
| 3.18 | CR123C379A | CR123R379A | 60A | 30A | |
| 3.54 | CR123C419A | CR123R419A | 100A | 30A | |
| 3.89 | CR123C466A | CR123R466A | 100A | 30A | |
| 4.51 | CR123C526A | CR123R526A | 100A | 30A | |
| 4.90 | CR123C592A | CR123R592A | 100A | 30A | |
| 5.30 | CR123C630A | CR123R630A | 100A | 30A | |
| 5.94 | CR123C695A | CR123R695A | 100A | 30A | |
| 6.70 | CR123C778A | CR123R778A | 100A | — | |
| 7.36 | CR123C867A | CR123R867A | 100A | — | |
| 7.98 | CR123C955A | CR123R955A | 100A | — | |
| 8.59 | CR123C104B | CR123C104B | 100A | — | |
| 9.46 | CR123C113B | CR123C113B | 100A | — | |
| 10.3 | CR123C125B | CR123C125B | 100A | — | |
| 11.7 | CR123C137B | CR123C137B | 100A | — | |
| 12.6 | CR123C151B | CR123C151B | 100A | — | |
| 13.8 | CR123C163B | CR123C163B | 100A | — | |
| 15.4 | CR123C180B | CR123C180B | 100A | — | |
| 16.6 | CR123C198B | CR123C198B | 100A | — | |
| 17.4 | CR123C214B | CR123C214B | 100A | — | |
| 19.4 ¹ | CR123C228B | — | — | — | |
| 20.6 ¹ | CR123C250B | — | — | — | |
| 22.0 ¹ | CR123C273B | — | — | — | |
| 25.3 ¹ | CR123C303B | — | — | — | |

¹Size M-1 only.

²Does not apply to NEMA Type 7 forms.

Heaters for CR1062T Starters

NEMA Size M-1P, Single-Phase, One Overload

| Maximum Motor Full-Load Amperes | Heater Product Number |
|---------------------------------|-----------------------|
| 8.56 | CR123C778A |
| 9.43 | CR123C867A |
| 10.3 | CR123C955A |
| 11.0 | CR123C104B |
| 12.1 | CR123C113B |
| 13.2 | CR123C125B |
| 15.0 | CR123C137B |
| 16.2 | CR123C151B |
| 17.7 | CR123C163B |
| 19.7 | CR123C180B |
| 21.2 | CR123C198B |
| 22.2 | CR123C214B |
| 24.9 | CR123C228B |
| 26.4 | CR123C250B |
| 30.0 | CR123C273B |
| 32.7 | CR123C303B |
| 34.0 | CR123C330B |

Heater Ordering Information

All CR123C and 123R heaters are packaged three to a carton. Items of these heaters, being ordered for either customer's stock or any other purpose, are to be specified in multiples of three (such as 3, 6, 9, 12, 15, etc.) Minimum order quantity is three.

| Heater Product Number | List Price Each, GO-10H |
|-----------------------|-------------------------|
| CR123C,R (All) | \$9.00 |

Note: The National Electrical Code requires running overcurrent protection in all three lines of three-phase motors.



NEMA Full Voltage Power Devices Pumping Panels

CR340, CR341 Pumping Panels

100 Hp Max. @ 240V, 600 Hp Max. @ 600V
NEMA Sizes 1-7

Application

Specifically designed for outdoor installation, these pumping panels provide full voltage control of squirrel-cage pump motors. They offer protection from motor burnouts due to overloading, protection against untimely restarts after power failure, and protection of the motor circuit against damage from short circuits. Enclosure provides additional space for customer to mount desired modifications and accessories. Custom panel designs available upon request. Contact nearest GE representative or authorized distributor for additional information.

Product Number Selection Instructions

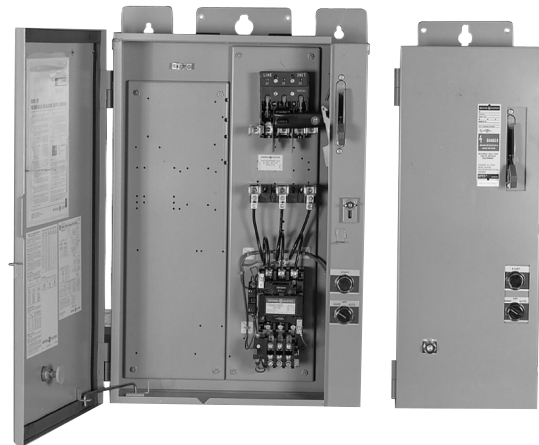
1. The GE pumping panels are specifically designed for outdoor installation. They provide full-voltage control of squirrel-cage pump motors. Overload, undervoltage, and short-circuit protection is included as standard.
2. GE pumping panels are available with traditional NEMA Class 20 bimetal thermal overloads, Class 10/20/30 selectable and adjustable electronic overloads with phase loss protection and Class 10 adjustable thermal overloads with differential protection.
3. In addition, pump panels can be provided with no overload relay, Class 10 overloads with fixed heaters, adjustable trip and differential trip; standard NEMA Class 20 overload relays or the Class 10/20/30 Electronic overload relay. Note the full line of Class 10 overload relays are approved for use with Franklin Electric vertical pump motors.
4. **50 Hertz Starters**
50 Hertz forms are available. Contact your nearest GE Representative for proper selection and pricing.
5. **Product Notes**
Fuse clips are sized for dual element time-delay fuses.
Order heaters by complete product number from tables on pages 1-188 and 1-189.

Reference Publications

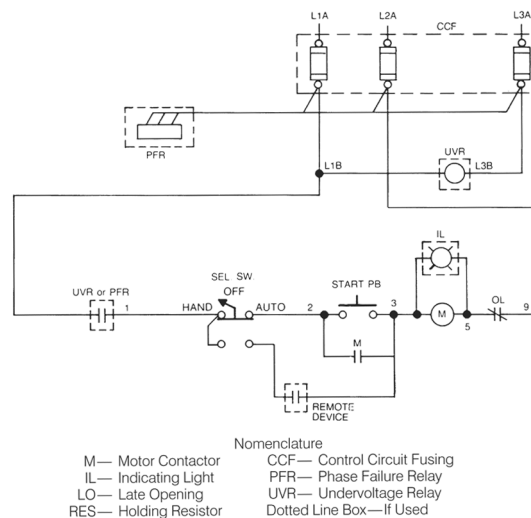
| | |
|---------------------------|----------|
| Instructions | GEH-4715 |
| Installation Instructions | GEH-4142 |



Section 1



Typical CR341 Pumping Panels, Wide Case (Left) and Narrow Case (Right)



Typical CR340 and CR341, NEMA Sizes 1-6

Pumping Panels – Contents

| | |
|---|-------|
| Application Information and Selection Instructions (CR340, CR341)..... | 1-174 |
| Fusible Disconnect Type with Thermal Overload Relays, Thermal Class 20 (CR341)..... | 1-175 |
| Fusible Disconnect Type with Thermal Overload Relays, Thermal Class 10 (CR341)..... | 1-176 |
| Fusible Disconnect Type with Solid State Overload Relays, Class 10-20-30 (CR341)..... | 1-178 |
| Fusible Disconnect Type Part Number Configuration (CR341)..... | 1-179 |
| With Thermal Overload Relay, Relay Class 20 (CR340)..... | 1-182 |
| Mag-Break Type with Thermal Overload Relays, Thermal Class 10 (CR340)..... | 1-183 |
| Mag-Break Type with Solid State Overload Relays, Class 10-20-30 (CR340)..... | 1-184 |
| Mag-Break Type Part Number Configuration (CR340)..... | 1-185 |
| Heaters (CR340, CR341)..... | 1-188 |
| Outlines and Dimensions (CR340, CR341)..... | 1-190 |

NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

With Thermal Overload Relay

Thermal Class 20 (Fuses not included except where footnoted)

Fusible Disconnect

List price includes complete starter with fusible switch, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure. Three heaters should be ordered as separate items. See table on page 1-188. Fuses are not included except where footnoted.

Mag-Break and Thermal Magnetic

List price includes complete starter with circuit breaker, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure. Three heaters should be ordered as separate items. See table on page 1-188.

The following tables contain common product numbers. Use the selection guide starting on page 1-179 to select other configurations.

Class H Fuse Clips

| Coil Voltage (60Hz) | NEMA Size | Horsepower | Fuse Clip Rating (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|---------------------|-----------|------------|-------------------------|---------------------|--------------------|------------------------------|--------------------|
| | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 230-240 | 1 | 7 1/2 | 30 | 341K013BAA1AA | \$741.00 | 341C013BAA1AA | \$768.00 |
| 230-240 | 2 | 15 | 60 | 341L013CAA1AA | \$1011.00 | 341D013CAA1AA | \$1038.00 |
| 230-240 | 3 | 20 | 60 | - | - | 341E013CAA1AA | \$1686.00 |
| 230-240 | 3 | 30 | 100 | - | - | 341E013DAA1AA | \$1686.00 |
| 230-240 | 4 | 50 | 200 | - | - | 341F013EAC1AA ¹ | \$3276.00 |
| 230-240 | 5 | 60 | 200 | - | - | 341G013EAC1AA ¹ | \$6876.00 |
| 230-240 | 5 | 100 | 400 | - | - | 341G013FAC1AA ¹ | \$6876.00 |
| 460-480 | 2 | 10 | 30 | 341K014BAA1AA | \$753.00 | 341C014BAA1AA | \$780.00 |
| 460-480 | 2 | 15 | 30 | 341L014BAA1AA | \$1029.00 | 341D014BAA1AA | \$1056.00 |
| 460-480 | 2 | 25 | 60 | 341L014CAA1AA | \$1029.00 | 341D014CAA1AA | \$1056.00 |
| 460-480 | 3 | 30 | 60 | - | - | 341E014CAA1AA | \$1722.00 |
| 460-480 | 3 | 50 | 100 | - | - | 341E014DAA1AA | \$1722.00 |
| 460-480 | 4 | 60 | 100 | - | - | 341F014DAA1AA | \$3168.00 |
| 460-480 | 4 | 100 | 200 | - | - | 341F014EAC1AA ¹ | \$3300.00 |
| 460-480 | 5 | 125 | 200 | - | - | 341G014EAC1AA ¹ | \$7020.00 |
| 460-480 | 5 | 200 | 400 | - | - | 341G014FAC1AA ¹ | \$7020.00 |
| 460-480 | 6 | 400 | 600 | - | - | 341H014GAD1AA ^{1,2} | \$18303.00 |
| 460-480 | 7 | 500 | 1600 | - | - | 341J014NAD1AA ^{1,2} | \$27738.00 |
| 460-480 | 7 | 600 | 1800 | - | - | 341J014PAD1AA ^{1,2} | \$27738.00 |

For pump panel without overload, change 8th digit in product number from "1" to "4" and subtract price according to table below.

Class R Fuse Clips

| Coil Voltage (60Hz) | NEMA Size | Horsepower | Fuse Clip Rating (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|---------------------|-----------|------------|-------------------------|---------------------|--------------------|----------------------------|--------------------|
| | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 230-240 | 1 | 7 1/2 | 30 | 341K113BAA1AA | \$750.00 | 341C113BAA1AA | \$777.00 |
| 230-240 | 2 | 15 | 60 | 341L113CAA1AA | \$1020.00 | 341D113CAA1AA | \$1047.00 |
| 230-240 | 3 | 20 | 60 | - | - | 341E113CAA1AA | \$1704.00 |
| 230-240 | 3 | 30 | 100 | - | - | 341E113DAA1AA | \$1704.00 |
| 230-240 | 4 | 50 | 200 | - | - | 341F113EAC1AA ¹ | \$3294.00 |
| 230-240 | 5 | 60 | 200 | - | - | 341G113EAC1AA ¹ | \$6918.00 |
| 230-240 | 5 | 100 | 400 | - | - | 341G113FAC1AA ¹ | \$6918.00 |
| 460-480 | 1 | 10 | 30 | 341K114BAA1AA | \$762.00 | 341C114BAA1AA | \$789.00 |
| 460-480 | 2 | 15 | 30 | 341L114BAA1AA | \$1038.00 | 341D114BAA1AA | \$1065.00 |
| 460-480 | 2 | 25 | 60 | 341L114CAA1AA | \$1038.00 | 341D114CAA1AA | \$1065.00 |
| 460-480 | 3 | 30 | 60 | - | - | 341E114CAA1AA | \$1740.00 |
| 460-480 | 3 | 50 | 100 | - | - | 341E114DAA1AA | \$1740.00 |
| 460-480 | 4 | 60 | 100 | - | - | 341F114DAA1AA | \$3186.00 |
| 460-480 | 4 | 100 | 200 | - | - | 341F114EAC1AA ¹ | \$3318.00 |
| 460-480 | 5 | 125 | 200 | - | - | 341G114EAC1AA ¹ | \$7062.00 |
| 460-480 | 5 | 200 | 400 | - | - | 341G114FAC1AA ¹ | \$7062.00 |

For pump panel without overload, change 8th digit in product number from "1" to "4" and subtract price according to table below.

¹Control Circuit Fusing included in pricing.

²List Price includes CLF fuses.

Without Overload

| NEMA Size | No overload list price deduction |
|-----------|----------------------------------|
| 1 | \$30.00 |
| 2 | \$54.00 |
| 3 | \$90.00 |
| 4 | \$144.00 |
| 5 | \$504.00 |

Example: CR341K013BAA1AA becomes CR341K043BAA1AA at \$711.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

With Thermal Overload Relay

Thermal Class 10 with Differential Protection

List price includes complete starter with fusible switch, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure with manual reset. Heaters are included in Class 10 overloads. Horsepower ratings are based on standard NEC motor data and normal service conditions. All forms are UL listed and CSA certified.

The following tables contain common product numbers. Use the selection guide starting on page 1-179 to select other configurations.

Class H Fuse Clips

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | Fuse Clip Rating (Amps) | Maximum Fuse Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|--|--|-------------------------|----------------------------|-----------------------|---------------------|--------------------|-----------------------------|--------------------|
| | | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | 1 | 30 | 6 | 1.3-1.9 | 341K09*BAA1AAG | \$753.00 | 341C09*BAA1AAG | \$780.00 |
| 1 | 1/2 | 1 1/2 | 30 | 10 | 1.8-2.7 | 341K09*BAA1AAH | \$753.00 | 341C09*BAA1AAH | \$780.00 |
| 1 | 1 | 2 | 30 | 15 | 2.5-4.1 | 341K09*BAA1AAJ | \$753.00 | 341C09*BAA1AAJ | \$780.00 |
| 1 | 1 1/2 | 3 | 30 | 20 | 4.0-6.3 | 341K09*BAA1AAK | \$753.00 | 341C09*BAA1AAK | \$780.00 |
| 1 | 2 | 5 | 30 | 25 | 5.5-8.5 | 341K09*BAA1AAL | \$753.00 | 341C09*BAA1AAL | \$780.00 |
| 1 | 3 | 7 1/2 | 30 | 30 | 8.0-12.0 | 341K09*BAA1AAM | \$753.00 | 341C09*BAA1AAM | \$780.00 |
| 1 | 5 | 10 | 30 | 30 | 10.0-16.0 | 341K09*BAA1AAP | \$753.00 | 341C09*BAA1AAP | \$780.00 |
| 1 | - | - | 30 | 30 | 14.5-18.0 | 341K09*BAA1AAR | \$753.00 | 341C09*BAA1AAR | \$780.00 |
| 1 | - | - | 30 | 30 | 17.5-22.0 | 341K09*BAA1AAS | \$753.00 | 341C09*BAA1AAS | \$780.00 |
| 1 | 7 1/2 | - | 30 | 30 | 21.0-26.0 | 341K09*BAA1AAT | \$753.00 | 341C09*BAA1AAT | \$780.00 |
| 2 | - | 15 | 60 | 60 | 17.5-22.0 | 341L09*CAA1AAG | \$1029.00 | 341D09*CAA1AAG | \$1056.00 |
| 2 | - | - | 60 | 60 | 21-26 | 341L09*CAA1AAH | \$1029.00 | 341D09*CAA1AAH | \$1056.00 |
| 2 | 10 | 20 | 60 | 60 | 25-32 | 341L09*CAA1AAJ | \$1029.00 | 341D09*CAA1AAJ | \$1056.00 |
| 2 | - | 25 | 60 | 60 | 30-43 | 341L09*CAA1AAK | \$1029.00 | 341D09*CAA1AAK | \$1056.00 |
| 2 | 15 | - | 60 | 60 | 42-55 | 341L09*CAA1AAL | \$1029.00 | 341D09*CAA1AAL | \$1056.00 |
| 3 | - | 30 | 100 | 100 | 30-43 | - | - | 341E09*DAA1AAG | \$1722.00 |
| 3 | 20 | 40 | 100 | 100 | 42-55 | - | - | 341E09*DAA1AAH | \$1722.00 |
| 3 | - | - | 100 | 100 | 54-65 | - | - | 341E09*DAA1AAJ | \$1722.00 |
| 3 | 30 | 50 | 100 | 100 | 63-90 | - | - | 341E09*DAA1AAK | \$1722.00 |
| 4 | - | 60 | 200 | 200 | 63-90 | - | - | 341F09*EAC1AAG ² | \$3300.00 |
| 4 | 40 | 100 | 200 | 200 | 90-120 | - | - | 341F09*EAC1AAH ² | \$3300.00 |
| 4 | 50 | - | 200 | 200 | 110-140 | - | - | 341F09*EAC1AAJ ² | \$3300.00 |
| 5 | 75 | 150 | 400 | 400 | 120-190 | - | - | 341G09*FAC1AAG ² | \$7020.00 |
| 5 | - | 200 | 400 | 400 | 175-280 | - | - | 341G09*FAC1AAH ² | \$7020.00 |
| 5 | 100 | - | 400 | 400 | 200-310 | - | - | 341G09*FAC1AAJ ² | \$7020.00 |

* Insert number from coil table on next page in place of asterisk in product number for voltage/frequency desired.

Class R Fuse Clips

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | Fuse Clip Rating (Amps) | Maximum Fuse Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|--|--|-------------------------|----------------------------|-----------------------|---------------------|--------------------|-----------------------------|--------------------|
| | | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | 1 | 30 | 6 | 1.3-1.9 | 341K19*BAA1AAG | \$762.00 | 341C19*BAA1AAG | \$789.00 |
| 1 | 1/2 | 1 1/2 | 30 | 10 | 1.8-2.7 | 341K19*BAA1AAH | \$762.00 | 341C19*BAA1AAH | \$789.00 |
| 1 | 1 | 2 | 30 | 15 | 2.5-4.1 | 341K19*BAA1AAJ | \$762.00 | 341C19*BAA1AAJ | \$789.00 |
| 1 | 1 1/2 | 3 | 30 | 20 | 4.0-6.3 | 341K19*BAA1AAK | \$762.00 | 341C19*BAA1AAK | \$789.00 |
| 1 | 2 | 5 | 30 | 25 | 5.5-8.5 | 341K19*BAA1AAL | \$762.00 | 341C19*BAA1AAL | \$789.00 |
| 1 | 3 | 7 1/2 | 30 | 30 | 8.0-12.0 | 341K19*BAA1AAM | \$762.00 | 341C19*BAA1AAM | \$789.00 |
| 1 | 5 | 10 | 30 | 30 | 10.0-16.0 | 341K19*BAA1AAP | \$762.00 | 341C19*BAA1AAP | \$789.00 |
| 1 | - | - | 30 | 30 | 14.5-18.0 | 341K19*BAA1AAR | \$762.00 | 341C19*BAA1AAR | \$789.00 |
| 1 | - | - | 30 | 30 | 17.5-22.0 | 341K19*BAA1AAS | \$762.00 | 341C19*BAA1AAS | \$789.00 |
| 1 | 7 1/2 | - | 30 | 30 | 21.0-26.0 | 341K19*BAA1AAT | \$762.00 | 341C19*BAA1AAT | \$789.00 |
| 2 | - | 15 | 60 | 60 | 17.5-22.0 | 341L19*CAA1AAG | \$1038.00 | 341D19*CAA1AAG | \$1065.00 |
| 2 | - | - | 60 | 60 | 21-26 | 341L19*CAA1AAH | \$1038.00 | 341D19*CAA1AAH | \$1065.00 |
| 2 | 10 | 20 | 60 | 60 | 25-32 | 341L19*CAA1AAJ | \$1038.00 | 341D19*CAA1AAJ | \$1065.00 |
| 2 | - | 25 | 60 | 60 | 30-43 | 341L19*CAA1AAK | \$1038.00 | 341D19*CAA1AAK | \$1065.00 |
| 2 | 15 | - | 60 | 60 | 42-55 | 341L19*CAA1AAL | \$1038.00 | 341D19*CAA1AAL | \$1065.00 |
| 3 | - | 30 | 100 | 100 | 30-43 | - | - | 341E19*DAA1AAG | \$1740.00 |
| 3 | 20 | 40 | 100 | 100 | 42-55 | - | - | 341E19*DAA1AAH | \$1740.00 |
| 3 | - | - | 100 | 100 | 54-65 | - | - | 341E19*DAA1AAJ | \$1740.00 |
| 3 | 30 | 50 | 100 | 100 | 63-90 | - | - | 341E19*DAA1AAK | \$1740.00 |
| 4 | - | 60 | 200 | 200 | 63-90 | - | - | 341F19*EAC1AAG ² | \$3318.00 |
| 4 | 40 | 100 | 200 | 200 | 90-120 | - | - | 341F19*EAC1AAH ² | \$3318.00 |
| 4 | 50 | - | 200 | 200 | 110-140 | - | - | 341F19*EAC1AAJ ² | \$3318.00 |
| 5 | 75 | 150 | 400 | 400 | 120-190 | - | - | 341G19*FAC1AAG ² | \$7062.00 |
| 5 | - | 200 | 400 | 400 | 175-280 | - | - | 341G19*FAC1AAH ² | \$7062.00 |
| 5 | 100 | - | 400 | 400 | 200-310 | - | - | 341G19*FAC1AAJ ² | \$7062.00 |

* Insert number from coil table on next page in place of asterisk in product number for voltage/frequency desired.

• NEMA sizes 1-3 rated 5,000 rms symmetrical amperes maximum.

• NEMA sizes 4 & 5 rated 10,000 rms symmetrical amperes maximum.

¹Horsepower ratings are based on standard NEC motor data and normal service conditions.

²Control Circuit Fusing included in pricing.



Product Number Selection Instructions: See page 1-174

NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

With Thermal Overload Relay

Thermal Class 10 with Differential Protection

List price includes complete starter with fusible switch, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure with manual reset. Heaters are included in Class 10 overloads. Horsepower ratings are based on standard NEC motor data and normal service conditions. All forms are UL listed and CSA certified.

*Coil Table

(To Complete Product Number)

| Coil Number ¹ | Voltage | Frequency |
|--------------------------|-----------|-----------|
| 1 | 200-208 V | 60 Hertz |
| 3 | 230-240 V | 60 Hertz |
| 4 | 460-480 V | 60 Hertz |
| 5 | 575-600 V | 60 Hertz |
| 6 | 380-415 V | 50 Hertz |

¹50 Hertz forms are available. Contact nearest GE Representative for proper selection and pricing.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

With Solid State Overload Relay

Solid State Class 10-20-30 Electronic Overload with Adjustable Setting

List price includes complete starter with fusible switch (Class H clips), H-O-A selector switch, START push button, overload in a Type 3R enclosure with manual reset. Horsepower ratings are based on standard NEC motor data and normal service conditions. Note: See pages 1-160 through 1-163 for detailed information on electronic overload relays.

The following tables contain common product numbers. Use the selection guide starting on page 1-179 to select other configurations.

Class H Fuse Clips

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | Fuse Clip Rating (Amps) | Maximum Fuse Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|---|---|----------------------------|-------------------------------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------------|
| | | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | - | 30 | 3 | 0.4-0.85 | 341K0X*BAA1AAC | \$780.00 | 341C0X*BAA1AAC | \$807.00 |
| 1 | - | 0.75 | 30 | 6 | 0.8-1.7 | 341K0X*BAA1AAD | \$780.00 | 341C0X*BAA1AAD | \$807.00 |
| 1 | 0.75 | 2 | 30 | 10 | 1.6-3.4 | 341K0X*BAA1AAE | \$780.00 | 341C0X*BAA1AAE | \$807.00 |
| 1 | 2 | 3 | 30 | 25 | 3.2-6.8 | 341K0X*BAA1AAF | \$780.00 | 341C0X*BAA1AAF | \$807.00 |
| 1 | 3 | 7.5 | 30 | 30 | 6.5-13.5 | 341K0X*BAA1AAG | \$780.00 | 341C0X*BAA1AAG | \$807.00 |
| 1 | 7.5 | 10 | 30 | 30 | 13-27 | 341K0X*BAA1AAH | \$780.00 | 341C0X*BAA1AAH | \$807.00 |
| 2 | 3 | 7.5 | 30 | 30 | 6.5-13.5 | 341L0X*BAA1AAG | \$1056.00 | 341D0X*BAA1AAG | \$1082.00 |
| 2 | 7.5 | 20 | 60 | 60 | 13-27 | 341L0X*CAA1AAH | \$1056.00 | 341D0X*CAA1AAH | \$1082.00 |
| 2 | 15 | 25 | 60 | 60 | 25-50 | 341L0X*CAA1AAJ | \$1056.00 | 341D0X*CAA1AAJ | \$1082.00 |
| 3 | 10 | 25 | 60 | 50 | 17-35 | - | - | 341E0X*CAC1AAK ³ | \$1881.00 |
| 3 | 25 | 50 | 60 | 60 | 35-70 | - | - | 341E0X*CAC1AAL ³ | \$1881.00 |
| 3 | 30 | - | 60 | 60 | 65-90 | - | - | 341E0X*CAC1AAM ³ | \$1881.00 |
| 4 | 10 | 25 | 200 | 200 | 17-35 | - | - | 341F0X*EAC1AAK ³ | \$3327.00 |
| 4 | 25 | 50 | 200 | 200 | 35-70 | - | - | 341F0X*EAC1AAL ³ | \$3327.00 |
| 4 | 50 | 100 | 200 | 200 | 65-135 | - | - | 341F0X*EAC1AAM ³ | \$3327.00 |
| 5 | 50 | 100 | 200 | 200 | 65-135 | - | - | 341G0X*EAC1AAP ³ | \$7048.00 |
| 5 | 100 | 200 | 400 | 400 | 130-270 | - | - | 341G0X*FAC1AAQv | \$7048.00 |
| 6 | 100 | 200 | 600 | 600 | 130-270 | - | - | 341H0X*GAD1AAS ³ | \$18330.00 |
| 6 | 200 | 400 | 1200 | 1200 | 260-540 | - | - | 341H0X*LAD1AAT ³ | \$18330.00 |

* Insert number from coil table below in place of asterisk in product number for voltage/frequency desired.

Class R Fuse Clips

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | Fuse Clip Rating (Amps) | Maximum Fuse Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|---|---|----------------------------|-------------------------------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------------|
| | | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | - | 30 | 3 | 0.4-0.85 | 341K1X*BAA1AAC | \$789.00 | 341C1X*BAA1AAC | \$816.00 |
| 1 | - | 0.75 | 30 | 6 | 0.8-1.7 | 341K1X*BAA1AAD | \$789.00 | 341C1X*BAA1AAD | \$816.00 |
| 1 | 0.75 | 2 | 30 | 10 | 1.6-3.4 | 341K1X*BAA1AAE | \$789.00 | 341C1X*BAA1AAE | \$816.00 |
| 1 | 2 | 3 | 30 | 25 | 3.2-6.8 | 341K1X*BAA1AAF | \$789.00 | 341C1X*BAA1AAF | \$816.00 |
| 1 | 3 | 7.5 | 30 | 30 | 6.5-13.5 | 341K1X*BAA1AAG | \$789.00 | 341C1X*BAA1AAG | \$816.00 |
| 1 | 7.5 | 10 | 30 | 30 | 13-27 | 341K1X*BAA1AAH | \$789.00 | 341C1X*BAA1AAH | \$816.00 |
| 2 | 3 | 7.5 | 30 | 30 | 6.5-13.5 | 341L1X*BAA1AAG | \$1065.00 | 341D1X*BAA1AAG | \$1091.00 |
| 2 | 7.5 | 20 | 60 | 60 | 13-27 | 341L1X*CAA1AAH | \$1065.00 | 341D1X*CAA1AAH | \$1091.00 |
| 2 | 15 | 25 | 60 | 60 | 25-50 | 341L1X*CAA1AAJ | \$1065.00 | 341D1X*CAA1AAJ | \$1091.00 |
| 3 | 10 | 25 | 60 | 50 | 17-35 | - | - | 341E1X*CAC1AAK ³ | \$1899.00 |
| 3 | 25 | 50 | 60 | 60 | 35-70 | - | - | 341E1X*CAC1AAL ³ | \$1899.00 |
| 3 | 30 | - | 60 | 60 | 65-90 | - | - | 341E1X*CAC1AAM ³ | \$1899.00 |
| 4 | 10 | 25 | 200 | 200 | 17-35 | - | - | 341F1X*EAC1AAK ³ | \$3345.00 |
| 4 | 25 | 50 | 200 | 200 | 35-70 | - | - | 341F1X*EAC1AAL ³ | \$3345.00 |
| 4 | 50 | 100 | 200 | 200 | 65-135 | - | - | 341F1X*EAC1AAM ³ | \$3345.00 |
| 5 | 50 | 100 | 200 | 200 | 65-135 | - | - | 341G1X*EAC1AAP ³ | \$7090.00 |
| 5 | 100 | 200 | 400 | 400 | 130-270 | - | - | 341G1X*FAC1AAQ ³ | \$7090.00 |

* Insert number from coil table below in place of asterisk in product number for voltage/frequency desired

*Coil Table

(To Complete Product Number)

| Coil Number ² | Voltage | Frequency |
|--------------------------|-----------|-----------|
| 1 | 200-208 V | 60 Hertz |
| 3 | 230-240 V | 60 Hertz |
| 4 | 460-480 V | 60 Hertz |
| 5 | 575-600 V | 60 Hertz |
| 6 | 380-415 V | 50 Hertz |

• NEMA sizes 1-3 rated 5,000 rms symmetrical amperes maximum.

• NEMA sizes 4 & 5 rated 10,000 rms symmetrical amperes maximum.

¹Horsepower ratings are based on standard NEC motor data and normal service conditions.

²50 Hertz forms are available. Contact nearest GE Representative for proper selection and pricing.

³Control Circuit Fusing included in pricing.

Product Number Selection Instructions: See page 1-174



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 1-5

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

| | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9 Step 10 Step 11

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-6) Select Pump Panel Type, NEMA Size & Enclosure (NEMA Sizes 1 & 2)

| Voltage | NEMA Size 1 | | | | NEMA Size 2 | | | | |
|------------------------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|-----------|
| | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | |
| Pumping Panel - Fusible Disconnect | 230-240 | 341K | \$741.00 | 341C | \$768.00 | 341L | \$1011.00 | 341D | \$1038.00 |
| Pumping Panel - Fusible Disconnect | 460-480 | 341K | \$753.00 | 341C | \$780.00 | 341L | \$1029.00 | 341D | \$1056.00 |

Step 1 (Digits 1-6) Select Pump Panel Type, NEMA Size & Enclosure (NEMA Sizes 3 - 5)

| Voltage | NEMA Size 3 | | | | NEMA Size 4 | | | | NEMA Size 5 | | | | |
|------------------------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|-----------|
| | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | |
| Pumping Panel - Fusible Disconnect | 230-240 | N/A | - | 341E | \$1818.00 | N/A | - | 341F | \$3276.00 | N/A | - | 341G | \$6876.00 |
| Pumping Panel - Fusible Disconnect | 460-480 | N/A | - | 341E | \$1854.00 | N/A | - | 341F | \$3300.00 | N/A | - | 341G | \$7020.00 |

Note for sizes 3, 4 & 5: Control Circuit Fusing (CCF) included in pricing. In Step 7 (Digit 12), page 1-180, select appropriate code including CCF.

Step 2 (Digit 7) Select Disconnect Means

| Option | Code | List Price GO-10GP | | | | |
|---|------|--------------------|--------|---------|---------|---------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Class H Fuse Clips - Standard IC Rating | 0 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Class R Fuse Clips - Higher IC Rating | 1 | \$9.00 | \$9.00 | \$18.00 | \$18.00 | \$42.00 |

Step 3 (Digit 8) Select Overload Relay

| Option | Code | List Price GO-10GP | | | | |
|--|----------------|--------------------|----------|----------|-----------|-----------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Class 20 Thermal Bi-Metallic Ambient Compensated | 1 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| No overloads | 4 | -\$30.00 | -\$54.00 | -\$90.00 | -\$144.00 | -\$504.00 |
| Class 10 IEC Ambient Compensated | 9 ¹ | \$12.00 | \$18.00 | \$36.00 | \$24.00 | \$144.00 |
| Starter Mount Class 10-20-30 Solid State | X | \$27.00 | \$26.00 | \$27.00 | \$27.00 | \$28.00 |
| Panel Mount Class 10-20-30 Solid State | Y ² | \$27.00 | \$26.00 | \$27.00 | \$27.00 | \$28.00 |

¹Adder applies for 230-240V only. No adder for 460/480V.

²Not available on Narrow Enclosures.

Step 4 (Digit 9) Select Line/Coil Voltage

| Voltage | Hz | Code | List Price GO-10GP |
|-----------|----|------|--------------------|
| 200-208 V | 60 | 1 | \$0.00 |
| 230-240 V | 60 | 3 | \$0.00 |
| 460-480 V | 60 | 4 | \$0.00 |
| 575-600 V | 60 | 5 | \$0.00 |
| 380 V | 50 | 6 | \$0.00 |



NEMA Full Voltage Power Devices Pumping Panels

CR341 Pumping Panels

Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 1-5

Section 1

Step 5 (Digit 10) Select Disconnect

Fuse Clip Rating (Amps)

| NEMA Size | | | | | Trip Code | List Price GO-10GP |
|----------------------------------|-----|-----|-----|-----|-----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | | |
| Disconnect Switchless Fuse Clips | | | | | A | \$0.00 |
| 30 | 30 | | | | B | \$0.00 |
| 60 | 60 | 60 | | | C | \$0.00 |
| | 100 | 100 | 100 | | D | \$0.00 |
| | | 200 | 200 | 200 | E | \$0.00 |
| | | | | 400 | F | \$0.00 |

Step 6 (Digit 11) Select Timer Option

| Device | Code | List Price GO-10GP |
|--------------------------------|--------------------|-----------------------|
| HOA SS, Start PB (Standard) | A | \$0.00 |
| HOA SS | B | -\$26.00 |
| Program Timer with Mini Door | C ^{2,3,4} | \$592.00 |
| Program Timer with Seq Restart | D ^{2,3,4} | \$492.00 |
| Back Spin Timer | E ^{2,3} | \$468.00 |
| Start-Stop PB | K | -\$26.00 |
| Program Timer with no options | L ^{2,3,4} | \$492.00 |

²Available in Wide enclosure forms only.

³Extra Capacity CPT required.

⁴Not UL Listed.

Step 7 (Digit 12) Select Control Circuit

| Option | Code | List Price GO-10GP | | | | |
|--|----------------|--------------------|----------|----------|----------|----------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| None - Standard - Line Voltage | A ⁵ | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Separate Control 120V | B ⁵ | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Control Circuit Fusing (CCF), Line Voltage | C ⁶ | \$132.00 | \$132.00 | \$0.00 | \$0.00 | \$0.00 |
| CCF, Separate Control 120V | D ⁶ | \$132.00 | \$132.00 | \$132.00 | \$0.00 | \$0.00 |
| CCF, CPT Standard Capacity | E ² | \$294.00 | \$360.00 | \$468.00 | \$540.00 | \$594.00 |
| CCF, CPT +100VA Extra Capacity | F ² | \$420.00 | \$504.00 | \$600.00 | \$660.00 | \$720.00 |

Note: CPT includes 1 secondary fuse.

²Available in Wide enclosure forms only.

⁵Only available for sizes 0-2, CCF is required for sizes 3, 4 and 5.

⁶Price adder for sizes 4 and 5 included in list price in Step 1 (Digits 1-6), page 1-179.

Step 8 (Digit 13) Select Lightning Arrestors/Surge

| Option | Code | List Price GO-10GP |
|-------------------------------------|------------------|-----------------------|
| None (Standard) | 1 | \$0.00 |
| Lightning Arrestor | 3 ² | \$240.00 |
| Lightning Arrestor, Surge Capacitor | 5 ^{2,4} | \$528.00 |
| Surge Capacitor | 7 ^{2,4} | \$288.00 |

²Available in Wide enclosure forms only.

⁴Not UL Listed.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR341 Pumping Panels

Fusible Disconnect Type

Part Number Configuration

Valid for NEMA sizes 1-5

Step 9 (Digit 14) Select Options

| Option | Code | List Price GO-10GP |
|--------------------------------|----------------|-----------------------|
| None (Standard) | A | \$0.00 |
| Unwired Control Circuit | B | \$0.00 |
| Elapsed Time Meter | D ² | \$348.00 |
| Space Heater | E | \$120.00 |
| 1 NO Aux Contact (Extra) | F | \$66.00 |
| 2 NO Aux Contact (Extra) | G | \$132.00 |
| 1 NC Aux Contact (Extra) | H | \$66.00 |
| 2 NC Aux Contact (Extra) | J | \$132.00 |
| 1 NO-1NC Aux Contact (Extra) | K | \$132.00 |
| Red & Green Indicator Light | L ² | \$390.00 |
| Red Indicator Light (Motor On) | N ² | \$162.00 |
| Aux Relay (2NO-2NC) | P ² | \$264.00 |
| ETM, w/ NO aux | S ² | \$348.00 |

²Available in Wide enclosure forms only.

Step 10 (Digit 15) Select Under Voltage/Phase Failure Relay

| Option | Code | List Price GO-10GP |
|---|----------------|-----------------------|
| None (Standard) | A | \$0.00 |
| Under Voltage Relay | B ² | \$306.00 |
| Under Voltage Relay & Phase Failure Relay | C ² | \$1056.00 |
| Phase Failure Relay | D ² | \$1056.00 |

²Available in Wide enclosure forms only.

Step 11 (Digit 16) Select Overload Range

Note: Leave Digit/Code BLANK for Class 20 - Use Tables below for Class 10 IEC & Class 10-20-30

| Overload | Code | List Price GO-10GP |
|--|--------------|-----------------------|
| Class 20 Thermal Bi-Metallic Ambient Compensated | Blank | \$0.00 |
| Class 10 IEC Ambient Compensated | Select below | \$0.00 |
| Class 10-20-30 Solid State | Select below | \$0.00 |

Class 10 IEC

| Code | NEMA Size | | | | |
|------|-----------|-----------|-------|---------|---------|
| | 1 | 2 | 3 | 4 | 5 |
| G | 1.3-1.9 | 17.5-22.0 | 30-43 | 63-90 | 120-190 |
| H | 1.8-2.7 | 21-26 | 42-55 | 90-120 | 175-280 |
| J | 2.5-4.1 | 25-32 | 54-65 | 110-140 | 200-310 |
| K | 4.0-6.3 | 30-43 | 63-90 | | |
| L | 5.5-8.5 | 42-55 | | | |
| M | 8.0-12.0 | | | | |
| P | 10.0-16.0 | | | | |
| R | 14.5-18.0 | | | | |
| S | 17.5-22.0 | | | | |
| T | 21.0-26.0 | | | | |

Class 10-20-30 Solid State

| Code | NEMA Size | | | | |
|------|-----------|----------|-------|--------|---------|
| | 1 | 2 | 3 | 4 | 5 |
| C | 0.4-0.85 | | | | |
| D | 0.8-1.7 | | | | |
| E | 1.6-3.4 | | | | |
| F | 3.2-6.8 | | | | |
| G | 6.5-13.5 | 6.5-13.5 | | | |
| H | 13-27 | 13-27 | | | |
| J | | 25-50 | | | |
| K | | | 17-35 | 17-35 | |
| L | | | 35-70 | 35-70 | |
| M | | | 65-90 | 65-135 | |
| P | | | | | 65-135 |
| Q | | | | | 130-270 |



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340 Pumping Panels

With Thermal Overload Relay
Relay Class 20

List price includes complete starter with circuit breaker, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure with manual reset. Horsepower ratings are based on standard NEC motor data and normal service conditions. All forms are UL listed and CSA certified.

The following tables contain common product numbers. Use the selection guide starting on page 1-185 to select other configurations.

Thermal Magnetic Circuit Breaker Type

| Coil Voltage (60Hz) ¹ | NEMA Size | Maximum Horsepower (3 phase) | CB Rating (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|----------------------------------|-----------|------------------------------|------------------|---------------------|--------------------|-------------------|--------------------|
| | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 230-240 | 1 | 2 | 15 | 340K013AAA1AA | \$765.00 | 340C013AAA1AA | \$792.00 |
| 230-240 | 1 | 3 | 20 | 340K013BAA1AA | \$765.00 | 340C013BAA1AA | \$792.00 |
| 230-240 | 1 | 5 | 40 | 340K013FAA1AA | \$765.00 | 340C013FAA1AA | \$792.00 |
| 230-240 | 1 | 7 1/2 | 50 | 340K013HAA1AA | \$765.00 | 340C013HAA1AA | \$792.00 |
| 230-240 | 2 | 10 | 50 | 340L013HAA1AA | \$1023.00 | 340D013HAA1AA | \$1050.00 |
| 230-240 | 2 | 15 | 70 | 340L013KAA1AA | \$1023.00 | 340D013KAA1AA | \$1050.00 |

For pump panel without overload, change 8th digit in product number from "1" to "4" and subtract price according to table below.

Mag-Break Type

| Coil Voltage (60Hz) ¹ | NEMA Size | Maximum Horsepower (3 phase) | CB Rating (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|----------------------------------|-----------|------------------------------|------------------|---------------------|--------------------|----------------------------|--------------------|
| | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 230-240 | 1 | 3 | 15 | 340K213CAC1AA | \$957.00 | 340C213CAC1AA | \$984.00 |
| 230-240 | 1 | 7 1/2 | 30 | 340K213DAC1AA | \$957.00 | 340C213DAC1AA | \$984.00 |
| 230-240 | 2 | 15 | 50 | 340L213EAC1AA | \$1197.00 | 340D213EAC1AA | \$1224.00 |
| 230-240 | 3 | 30 | 100 | - | - | 340E213FAC1AA | \$1746.00 |
| 230-240 | 4 | 50 | 150 | - | - | 340F213GAC1AA | \$3828.00 |
| 230-240 | 5 | 100 | 400 | - | - | 340G213HAC1AA | \$8538.00 |
| 460-480 | 1 | 7 1/2 | 15 | 340K214CAC1AA | \$957.00 | 340C214CAC1AA | \$984.00 |
| 460-480 | 1 | 10 | 30 | 340K214DAC1AA | \$957.00 | 340C214DAC1AA ² | \$984.00 |
| 460-480 | 2 | 25 | 50 | 340L214EAC1AA | \$1197.00 | 340D214EAC1AA ² | \$1224.00 |
| 460-480 | 3 | 50 | 100 | - | - | 340E214FAC1AA ² | \$1746.00 |
| 460-480 | 4 | 100 | 150 | - | - | 340F214GAC1AA ² | \$3828.00 |
| 460-480 | 5 | 200 | 400 | - | - | 340G214HAC1AA | \$8538.00 |
| 460-480 | 6 | 400 | 600 | - | - | 340H214KAD1AA | \$18357.00 |
| 460-480 | 7 | 600 | 1200 | - | - | 340J214NAD1AA | \$24681.00 |

For pump panel without overload (sizes 0-5 only), change 8th digit in product number from "1" to "4" and subtract price according to table below.

Without Overload

| NEMA Size | No overload list price deduction |
|-----------|----------------------------------|
| 1 | \$30.00 |
| 2 | \$54.00 |
| 3 | \$90.00 |
| 4 | \$144.00 |
| 5 | \$504.00 |

Example: CR340K013AAA1AA becomes CR340K043AAA1AA at \$735.00.

¹150 Hertz forms are available. Contact nearest GE Representative for proper selection and pricing.

²Available with CL-type current limiter and UL listed 100kA/C short-circuit rating, contact a GE Representative for availability and pricing. The 7th digit in the product number changes to "3".

General Note:

Control Circuit Fusing included in pricing for Mag-Break Type.



NEMA Full Voltage Power Devices

Pumping Panels

CR340 Pumping Panels

Section 1

Mag-Break Type
With Thermal Overload Relay
Thermal Class 10 with Differential Protection

List price includes complete starter with Mag-Break circuit breaker disconnect, H-O-A selector switch, START push button, and three-leg ambient compensated overload protection in Type 3R enclosure with manual reset. Heaters are included in Class 10 overloads. Horsepower ratings are based on standard NEC motor data and normal service conditions. All forms are UL listed and CSA certified.

The following tables contain common product numbers. Use the selection guide starting on page 1-185 to select other configurations.

Mag-Break Type with Thermal Overload Relay, Thermal Class 10 with Differential Protection

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | Maximum CB Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|--|--|--------------------------|-----------------------|---------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | 1 | 7 | 1.3-1.9 | 340K29*BAC1AAG | \$1089.00 | 340C29*BAC1AAG | \$1116.00 |
| 1 | 1/2 | 1 1/2 | 7 | 1.8-2.7 | 340K29*BAC1AAH | \$1089.00 | 340C29*BAC1AAH | \$1116.00 |
| 1 | 1 | 2 | 15 | 2.5-4.1 | 340K29*CAC1AAJ | \$1089.00 | 340C29*CAC1AAJ | \$1116.00 |
| 1 | 1 1/2 | 3 | 15 | 4.0-6.3 | 340K29*CAC1AAK | \$1089.00 | 340C29*CAC1AAK | \$1116.00 |
| 1 | 2 | 5 | 15 | 5.5-8.5 | 340K29*CAC1AAL | \$1089.00 | 340C29*CAC1AAL | \$1116.00 |
| 1 | 3 | 7 1/2 | 30 | 8.0-12.0 | 340K29*DAC1AAM | \$1089.00 | 340C29*DAC1AAM | \$1116.00 |
| 1 | 5 | 10 | 30 | 10.0-16.0 | 340K29*DAC1AAP | \$1089.00 | 340C29*DAC1AAP | \$1116.00 |
| 1 | - | - | 30 | 14.5-18.0 | 340K29*DAC1AAR | \$1089.00 | 340C29*DAC1AAR | \$1116.00 |
| 1 | - | - | 30 | 17.5-22.0 | 340K29*DAC1AAS | \$1089.00 | 340C29*DAC1AAS | \$1116.00 |
| 1 | 7 1/2 | - | 30 | 21.0-26.0 | 340K29*DAC1AAT | \$1089.00 | 340C29*DAC1AAT | \$1116.00 |
| 2 | - | 15 | 30 | 17.5-22.0 | 340L29*DAC1AAG | \$1329.00 | 340D29*DAC1AAG | \$1356.00 |
| 2 | - | - | 50 | 21-26 | 340L29*EAC1AAH | \$1329.00 | 340D29*EAC1AAH | \$1356.00 |
| 2 | 10 | 20 | 50 | 25-32 | 340L29*EAC1AAJ | \$1329.00 | 340D29*EAC1AAJ | \$1356.00 |
| 2 | - | 25 | 50 | 30-43 | 340L29*EAC1AAK | \$1329.00 | 340D29*EAC1AAK | \$1356.00 |
| 2 | 15 | - | 50 | 42-55 | 340L29*EAC1AAL | \$1329.00 | 340D29*EAC1AAL | \$1356.00 |
| 3 | - | 30 | 50 | 30-43 | - | - | 340E29*EAC1AAG | \$1878.00 |
| 3 | 20 | 40 | 100 | 42-55 | - | - | 340E29*FAC1AAH | \$1878.00 |
| 3 | - | - | 100 | 54-65 | - | - | 340E29*FAC1AAJ | \$1878.00 |
| 3 | 30 | 50 | 100 | 63-90 | - | - | 340E29*FAC1AAK | \$1878.00 |
| 4 | - | 60 | 100 | 63-90 | - | - | 340F29*FAC1AAG | \$3828.00 |
| 4 | 40 | 100 | 150 | 90-120 | - | - | 340F29*GAC1AAH | \$3828.00 |
| 4 | 50 | - | 150 | 110-140 | - | - | 340F29*GAC1AAJ | \$3828.00 |
| 5 | 75 | 150 | 400 | 120-190 | - | - | 340G29*HAC1AAG | \$8538.00 |
| 5 | - | 200 | 400 | 175-280 | - | - | 340G29*HAC1AAH | \$8538.00 |
| 5 | 100 | - | 400 | 200-310 | - | - | 340G29*HAC1AAJ | \$8538.00 |

* Insert number from coil table below in place of asterisk in product number for voltage/frequency desired

*Coil Table

(To Complete Product Number)

| Coil Number ² | Voltage | Frequency |
|--------------------------|-----------|-----------|
| 1 | 200-208 V | 60 Hertz |
| 3 | 230-240 V | 60 Hertz |
| 4 | 460-480 V | 60 Hertz |
| 5 | 575-600 V | 60 Hertz |
| 6 | 380-415 V | 50 Hertz |

- NEMA sizes 1-3 rated 5,000 rms symmetrical amperes maximum.
- NEMA sizes 4 & 5 rated 10,000 rms symmetrical amperes maximum.

¹Horsepower ratings are based on standard NEC motor data and normal service conditions.

²50 Hertz forms are available. Contact nearest GE Representative for proper selection and pricing.

General Note:

Control Circuit Fusing included in pricing for Mag-Break Type.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340 Pumping Panels

Mag-Break Type

With Solid State Overload Relay

Solid State Class 10-20-30 Electronic Overload with Adjustable Setting

List price includes complete starter with Mag-Break circuit breaker disconnect, H-O-A selector switch, START push button, overload in a Type 3R enclosure with manual reset. Horsepower ratings are based on standard NEC motor data and normal service conditions.

Note: See pages 1-160 through 1-163 for detailed information on electronic overload relays.

The following tables contain common product numbers. Use the selection guide starting on page 1-185 to select other configurations.

Mag-Break Type with Thermal Overload Relay, Solid State Class 10-20-30 Electronic Overload

| NEMA Size | Maximum Horsepower (3 phase) @ 230-240V ¹ | Maximum Horsepower (3 phase) @ 440-480V ¹ | CB Trip Rating (Amps) | Overload Range (Amps) | NEMA Type 3R Narrow | | NEMA Type 3R Wide | |
|-----------|--|--|-----------------------|-----------------------|---------------------|--------------------|-------------------|--------------------|
| | | | | | Product Number CR | List Price GO-10GP | Product Number CR | List Price GO-10GP |
| 1 | - | - | 3 | 0.4-0.85 | 340K2X*AAC1AAC | \$1084.00 | 340C2X*AAC1AAC | \$1011.00 |
| 1 | - | 0.75 | 3 | 0.8-1.7 | 340K2X*AAC1AAD | \$1084.00 | 340C2X*AAC1AAD | \$1011.00 |
| 1 | 0.75 | 2 | 7 | 1.6-3.4 | 340K2X*BAC1AAE | \$1216.00 | 340C2X*BAC1AAE | \$1143.00 |
| 1 | 2 | 3 | 7 | 3.2-6.8 | 340K2X*BAC1AAF | \$1216.00 | 340C2X*BAC1AAF | \$1143.00 |
| 1 | 3 | 7.5 | 7 | 6.5-13.5 | 340K2X*BAC1AAG | \$1216.00 | 340C2X*BAC1AAG | \$1143.00 |
| 1 | 7.5 | 10 | 30 | 13-27 | 340K2X*DAC1AAH | \$1216.00 | 340C2X*DAC1AAH | \$1143.00 |
| 2 | 3 | 7.5 | 30 | 6.5-13.5 | 340L2X*DAC1AAG | \$1356.00 | 340D2X*DAC1AAG | \$1383.00 |
| 2 | 7.5 | 20 | 50 | 13-27 | 340L2X*EAC1AAH | \$1356.00 | 340D2X*EAC1AAH | \$1383.00 |
| 2 | 15 | 25 | 50 | 25-50 | 340L2X*EAC1AAJ | \$1356.00 | 340D2X*EAC1AAJ | \$1383.00 |
| 3 | 10 | 25 | 50 | 17-35 | - | - | 340E2X*EAC1AAK | \$1895.00 |
| 3 | 25 | 50 | 100 | 35-70 | - | - | 340E2X*FAC1AAL | \$1895.00 |
| 3 | 30 | - | 100 | 65-90 | - | - | 340E2X*FAC1AAM | \$1895.00 |
| 4 | 10 | 25 | 100 | 17-35 | - | - | 340F2X*FAC1AAK | \$3755.00 |
| 4 | 25 | 50 | 100 | 35-70 | - | - | 340F2X*FAC1AAL | \$3755.00 |
| 4 | 50 | 100 | 150 | 65-135 | - | - | 340F2X*GAC1AAM | \$3755.00 |
| 5 | 50 | 100 | 150 | 65-135 | - | - | 340G2X*GAC1AAP | \$8565.00 |
| 5 | 100 | 200 | 400 | 130-270 | - | - | 340G2X*HAC1AAQ | \$8565.00 |
| 6 | 100 | 200 | 400 | 130-270 | - | - | 340H2X*FAD1AAS | \$18385.00 |
| 6 | 200 | 400 | 600 | 260-540 | - | - | 340H2X*GAD1AAT | \$18385.00 |

* Insert number from coil table below in place of asterisk in product number for voltage/frequency desired.

*Coil Table

(To Complete Product Number)

| Coil Number | Voltage | Frequency |
|-------------|-----------|-----------|
| 1 | 200-208 V | 60 Hertz |
| 3 | 230-240 V | 60 Hertz |
| 4 | 460-480 V | 60 Hertz |
| 5 | 575-600 V | 60 Hertz |
| 6 | 380-415 V | 50 Hertz |

- NEMA sizes 1-3 rated 5,000 rms symmetrical amperes maximum.
- NEMA sizes 4 & 5 rated 10,000 rms symmetrical amperes maximum.

¹Horsepower ratings are based on standard NEC motor data and normal service conditions.

General Note:

Control Circuit Fusing included in pricing.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340 Pumping Panels

Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 1-5

Digits: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

| | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | R | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Steps: Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8 Step 9 Step 10 Step 11

To configure the part number, use the tables below to fill in the digit boxes with the appropriate code.
Add list price from each step to arrive at total list for price for starter.

Step 1 (Digits 1-6) Select Pump Panel Type, NEMA Size & Enclosure (NEMA Sizes 1 & 2)

| | NEMA Size 1 | | | | NEMA Size 2 | | | |
|--------------------------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|
| | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP |
| Pumping Panel - Circuit Breaker Type | 340K | \$957.00 | 340C | \$984.00 | 340L | \$1197.00 | 340D | \$1224.00 |

Step 1 (Digits 1-6) Select Pump Panel Type, NEMA Size & Enclosure (NEMA Sizes 3 - 5)

| | NEMA Size 3 | | | | NEMA Size 4 | | | | NEMA Size 5 | | | |
|--------------------------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|---------------------|--------------------|-------------------|--------------------|
| | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP | Narrow Enclosure CR | List Price GO-10GP | Wide Enclosure CR | List Price GO-10GP |
| Pumping Panel - Circuit Breaker Type | N/A | - | 340E | \$1746.00 | N/A | - | 340F | \$3828.00 | N/A | - | 340G | \$8538.00 |

Note for sizes 4 & 5: Control Circuit Fusing (CCF) included in pricing. In Step 7 (Digit 12), page 1-186, select appropriate code including CCF.

Step 2 (Digit 7) Select Disconnect Means

| Option | Code | List Price GO-10GP | | | | |
|----------------------------------|----------------|--------------------|-----------|----------|----------|-----------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Thermal Mag - Standard IC Rating | 0 ¹ | -\$192.00 | -\$174.00 | - | - | - |
| Mag-Break - Standard IC Rating | 2 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Mag-Break - Higher IC Rating | 3 | \$180.00 | \$180.00 | \$414.00 | \$858.00 | \$1742.00 |

¹Available sizes 1 & 2, and 230-240V only.

Step 3 (Digit 8) Select Overload Relay

| Option | Code | List Price GO-10GP | | | | |
|--|----------------|--------------------|----------|---------|----------|---------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Class 20 Thermal Bi-Metallic Ambient Compensated | 1 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Class 10 IEC Ambient Compensated | 9 | \$0.00 | \$132.00 | \$0.00 | \$0.00 | \$0.00 |
| Starter Mount Class 10-20-30 Solid State | X | \$27.00 | \$27.00 | \$17.00 | -\$73.00 | \$27.00 |
| Panel Mount Class 10-20-30 Solid State | Y ² | \$27.00 | \$27.00 | \$17.00 | -\$73.00 | \$27.00 |

²Not available on Narrow Enclosures.

Step 4 (Digit 9) Select Line/Coil Voltage

| Voltage | Hz | Code | List Price GO-10GP |
|-----------|----|------|--------------------|
| 200-208 V | 60 | 1 | \$0.00 |
| 230-240 V | 60 | 3 | \$0.00 |
| 460-480 V | 60 | 4 | \$0.00 |
| 575-600 V | 60 | 5 | \$0.00 |
| 380 V | 50 | 6 | \$0.00 |



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340 Pumping Panels

Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 1-5

Step 5 (Digit 10) Select Disconnect

Thermal Mag Circuit Breaker Trips²

| NEMA Size | | Trip Code | List Price GO-10GP |
|-----------|-----|-----------|-----------------------|
| 1 | 2 | | |
| 15 | 15 | A | \$0.00 |
| 20 | 20 | B | \$0.00 |
| 25 | 25 | C | \$0.00 |
| 30 | 30 | D | \$0.00 |
| 35 | 35 | E | \$0.00 |
| 40 | 40 | F | \$0.00 |
| 45 | 45 | G | \$0.00 |
| 50 | 50 | H | \$0.00 |
| | 60 | J | \$0.00 |
| | 70 | K | \$0.00 |
| | 80 | L | \$0.00 |
| | 90 | M | \$0.00 |
| | 100 | N | \$0.00 |

²Available sizes 1 & 2 only.

Mag-Break Trips

| NEMA Size | | | | | Trip Code | List Price GO-10GP |
|-----------|----|-----|-----|-------------------|-----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | | |
| 3 | | | | | A | \$0.00 |
| 7 | | | | | B | \$0.00 |
| 15 | 15 | | | | C | \$0.00 |
| 30 | 30 | 30 | | | D | \$0.00 |
| | 50 | 50 | 50 | | E | \$0.00 |
| | | 100 | 100 | | F | \$0.00 |
| | | | 150 | | G | \$0.00 |
| | | | | 400F ³ | H | \$0.00 |
| | | | | 400G ⁴ | J | \$0.00 |

³Standard IC Rating.

⁴Higher IC Rating.

Step 6 (Digit 11) Select Timer Option

| Device | Code | List Price GO-10GP |
|--------------------------------|--------------------|-----------------------|
| HOA SS, Start PB (Standard) | A | \$0.00 |
| HOA SS | B | -\$26.00 |
| Program Timer with Mini Door | C ^{5,6,7} | \$592.00 |
| Program Timer with Seq Restart | D ^{5,6,7} | \$492.00 |
| Back Spin Timer | E ^{5,6} | \$468.00 |
| Start-Stop PB | K | -\$26.00 |
| Program Timer with no options | L ^{5,6,7} | \$492.00 |

⁵Available in Wide enclosure forms only.

⁶Extra Capacity CPT required.

⁷Not UL Listed.

Step 7 (Digit 12) Select Control Circuit

| Option | Code | List Price GO-10GP | | | | |
|--|----------------|--------------------|----------|----------|----------|----------|
| | | NEMA Size | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| None - Standard - Line Voltage - Thermal Mag | A ⁸ | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Separate Control 120V | B ⁸ | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Control Circuit Fusing (CCF), Line Voltage - Standard on Mag-Break | C ⁹ | \$132.00 | \$132.00 | \$0.00 | \$0.00 | \$0.00 |
| CCF, Separate Control 120V | D ⁹ | \$132.00 | \$132.00 | \$0.00 | \$0.00 | \$0.00 |
| CCF, CPT Standard Capacity | E ⁵ | \$294.00 | \$360.00 | \$468.00 | \$540.00 | \$594.00 |
| CCF, CPT +100VA Extra Capacity | F ⁵ | \$420.00 | \$504.00 | \$600.00 | \$660.00 | \$720.00 |

Note: CPT includes 1 secondary fuse.

⁵Available in Wide enclosure forms only.

⁸Only available for Thermal Mag circuit breaker type Pump Panels.

⁹Price adder included in list price in Step 1 (Digits 1-6), page 1-185 for Mag-Break circuit breaker type Pump Panels. Use list price adders only on Thermal Mag circuit breaker type.

Step 8 (Digit 13) Select Lightning Arrestors/Surge

| Option | Code | List Price GO-10GP |
|-------------------------------------|------------------|-----------------------|
| None (Standard) | 1 | \$0.00 |
| Lightning Arrestor | 3 ⁵ | \$240.00 |
| Lightning Arrestor, Surge Capacitor | 5 ^{5,7} | \$528.00 |
| Surge Capacitor | 7 ^{5,7} | \$288.00 |

⁵Available in Wide enclosure forms only.

⁷Not UL Listed.



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340 Pumping Panels

Mag-Break Circuit Breaker Type

Part Number Configuration

Valid for NEMA sizes 1-5

Step 9 (Digit 14) Select Options

| Option | Code | List Price GO-10GP |
|--------------------------------|----------------|-----------------------|
| None (Standard) | A | \$0.00 |
| Unwired Control Circuit | B | \$0.00 |
| Elapsed Time Meter | D ⁵ | \$348.00 |
| Space Heater | E | \$120.00 |
| 1 NO Aux Contact (Extra) | F | \$66.00 |
| 2 NO Aux Contact (Extra) | G | \$132.00 |
| 1 NC Aux Contact (Extra) | H | \$66.00 |
| 2 NC Aux Contact (Extra) | J | \$132.00 |
| 1 NO-1NC Aux Contact (Extra) | K | \$132.00 |
| Red & Green Indicator Light | L ⁵ | \$390.00 |
| Red Indicator Light (Motor On) | N ⁵ | \$162.00 |
| Aux Relay (2NO-2NC) | P ⁵ | \$264.00 |
| ETM, w/ NO aux | S ⁵ | \$348.00 |

⁵Available in Wide enclosure forms only.

Step 10 (Digit 15) Select Under Voltage/Phase Failure Relay

| Option | Code | List Price GO-10GP |
|---|----------------|-----------------------|
| None (Standard) | A | \$0.00 |
| Under Voltage Relay | B ⁵ | \$306.00 |
| Under Voltage Relay & Phase Failure Relay | C ⁵ | \$1056.00 |
| Phase Failure Relay | D ⁵ | \$1056.00 |

⁵Available in Wide enclosure forms only.

Step 11 (Digit 16) Select Overload Range

Note: Leave Digit/Code BLANK for Class 20 - Use Tables below for Class 10 IEC & Class 10-20-30 Electronic Overload

| Overload | Code | List Price GO-10GP |
|--|--------------|-----------------------|
| Class 20 Thermal Bi-Metallic Ambient Compensated | Blank | \$0.00 |
| Class 10 IEC Ambient Compensated | Select below | \$0.00 |
| Class 10-20-30 Solid State | Select below | \$0.00 |

Class 10 IEC

| Code | NEMA Size | | | | |
|------|-----------|-----------|-------|---------|---------|
| | 1 | 2 | 3 | 4 | 5 |
| G | 1.3-1.9 | 17.5-22.0 | 30-43 | 63-90 | 120-190 |
| H | 1.8-2.7 | 21-26 | 42-55 | 90-120 | 175-280 |
| J | 2.5-4.1 | 25-32 | 54-65 | 110-140 | 200-310 |
| K | 4.0-6.3 | 30-43 | 63-90 | | |
| L | 5.5-8.5 | 42-55 | | | |
| M | 8.0-12.0 | | | | |
| P | 10.0-16.0 | | | | |
| R | 14.5-18.0 | | | | |
| S | 17.5-22.0 | | | | |
| T | 21.0-26.0 | | | | |

Class 10-20-30 Solid State

| Code | NEMA Size | | | | |
|------|-----------|----------|-------|--------|---------|
| | 1 | 2 | 3 | 4 | 5 |
| C | 0.4-0.85 | | | | |
| D | 0.8-1.7 | | | | |
| E | 1.6-3.4 | | | | |
| F | 3.2-6.8 | | | | |
| G | 6.5-13.5 | 6.5-13.5 | | | |
| H | 13-27 | 13-27 | | | |
| J | | 25-50 | | | |
| K | | | 17-35 | 17-35 | |
| L | | | 35-70 | 35-70 | |
| M | | | 65-90 | 65-135 | |
| P | | | | | 65-135 |
| Q | | | | | 130-270 |



NEMA Full Voltage Power Devices Pumping Panels

CR340, CR341

Heaters

Class 20 Overload Heaters

For use with polyphase motors. For continuous rated motors with a service factor of 1.15 to 1.25, select heaters from the heater table for the motor full-load amperes. This provides a maximum of 125% protection.

For continuous rated motors with 1.0 service factor, multiply the full-load amperes of the motor by 0.90 and use this value to select heaters.

Ordering Information

All heaters listed are packaged in multiples of three. Items of these heaters should be ordered in quantities of three-unit multiples (such as 3, 6, 9, 12, etc.). The minimum order quantity is three.

Example: (For motors with FLA of 9.28)

Item 1- 2 CR341D013C at **\$1038.00 ea. = \$2076.00, GO-10GP** for 2 motors.

Item 1A-6 CR123C104B at **\$9.00 ea. = \$54.00, GO-10H** for starters.

| Heater Product Number | List Price Each, GO-10H |
|-----------------------|-------------------------|
| CR123C, F, L (All) | \$9.00 |

Size 1 — Class 20 Overload Relay Heaters

Motor Full-Load Amps.

| 3-Phase 3-Heaters | Heater Product Number | Max. Fuse Rating | Max. Breaker Rating | TEC/TECL Rating |
|-------------------|-----------------------|------------------|---------------------|-----------------|
| .41-.45 | CR123C054A | 3 | — | — |
| .46-.49 | CR123C060A | 3 | 15 | — |
| .50-.53 | CR123C066A | 3 | 15 | — |
| .54-.59 | CR123C071A | 3 | 15 | — |
| .60-.65 | CR123C078A | 3 | 15 | — |
| .66-.76 | CR123C087A | 3 | 15 | 3 |
| .77-.84 | CR123C097A | 3 | 15 | 3 |
| .85-.93 | CR123C109A | 3 | 15 | 3 |
| .94-1.04 | CR123C118A | 3 | 15 | 3 |
| 1.05-1.15 | CR123C131A | 3 | 15 | 3 |
| 1.16-1.27 | CR123C148A | 3 | 15 | 3 |
| 1.28-1.39 | CR123C163A | 3 | 15 | 3 |
| 1.40-1.55 | CR123C184A | 6 | 15 | 3 |
| 1.56-1.73 | CR123C196A | 6 | 15 | 3 |
| 1.74-1.89 | CR123C220A | 6 | 15 | 3 |
| 1.90-2.05 | CR123C239A | 6 | 15 | 3 |
| 2.06-2.28 | CR123C268A | 6 | 15 | 3 |
| 2.29-2.47 | CR123C301A | 6 | 15 | 3 |
| 2.48-2.79 | CR123C326A | 10 | 15 | 7 |
| 2.80-3.31 | CR123C356A | 10 | 15 | 7 |
| 3.32-3.70 | CR123C379A | 10 | 15 | 7 |
| 3.71-4.06 | CR123C419A | 15 | 15 | 7 |
| 4.07-4.47 | CR123C466A | 15 | 15 | 7 |
| 4.48-4.95 | CR123C526A | 15 | 15 | 7 |
| 4.96-5.49 | CR123C592A | 20 | 20 | 7 |
| 5.50-5.91 | CR123C630A | 20 | 20 | 7 |
| 5.92-6.47 | CR123C695A | 25 | 20 | 15 |
| 6.48-7.20 | CR123C778A | 25 | 20 | 15 |
| 7.21-8.22 | CR123C867A | 30 | 30 | 15 |
| 8.23-8.72 | CR123C955A | 30 | 30 | 15 |
| 8.73-9.67 | CR123C104B | 35 | 30 | 15 |
| 9.68-10.4 | CR123C113B | 35 | 30 | 15 |
| 10.5-11.0 | CR123C125B | 40 | 40 | 15 |
| 11.1-12.4 | CR123C137B | 45 | 40 | 15 |
| 12.5-13.2 | CR123C151B | 50 | 50 | 15, 30 |
| 13.3-15.4 | CR123C163B | 60 | 50 | 30 |
| 15.5-17.1 | CR123C180B | 60 | 50 | 30 |
| 17.2-18.1 | CR123C198B | 70 | 50 | 30 |
| 18.2-20.0 | CR123C214B | 70 | 50 | 30 |
| 20.1-21.5 | CR123C228B | 80 | 50 | 30 |
| 21.6-22.5 | CR123C250B | 80 | 70 | 30 |
| 22.6-23.9 | CR123C273B | 80 | 70 | 30 |
| 24.0-26.3 | CR123C303B | 90 | 70 | 30, 50 |
| 26.4-27.0 | CR123C330B | 90 | 70 | 50 |

Size 2 — Class 20 Overload Relay Heaters

Motor Full-Load Amps.

| 3-Phase 3-Heaters | Heater Product Number | Max. Fuse Rating | Max. Breaker Rating | TEC/TECL Rating |
|-------------------|-----------------------|------------------|---------------------|-----------------|
| 5.48-5.85 | CR123C630A | 20 | — | — |
| 5.86-6.47 | CR123C695A | 20 | — | — |
| 6.48-7.35 | CR123C778A | 25 | — | — |
| 7.36-8.06 | CR123C867A | 30 | — | — |
| 8.07-9.03 | CR123C955A | 30 | — | — |
| 9.04-9.61 | CR123C104B | 35 | 30 | 15 |
| 9.62-10.5 | CR123C113B | 35 | 30 | 15 |
| 10.6-11.6 | CR123C125B | 40 | 40 | 15 |
| 11.7-12.5 | CR123C137B | 45 | 40 | 15 |
| 12.6-13.6 | CR123C151B | 50 | 50 | 15 |
| 13.7-16.7 | CR123C163B | 60 | 50 | 30 |
| 16.8-17.9 | CR123C180B | 60 | 50 | 30 |
| 18.0-18.7 | CR123C198B | 70 | 70 | 30 |
| 18.8-20.4 | CR123C214B | 80 | 70 | 30 |
| 20.5-22.7 | CR123C228B | 80 | 70 | 30 |
| 22.8-24.7 | CR123C250B | 90 | 70 | 30 |
| 24.8-26.3 | CR123C273B | 90 | 70 | 30 |
| 26.4-29.5 | CR123C303B | 100 | 100 | 30, 50 |
| 29.6-32.5 | CR123C330B | 100 | 100 | 50 |
| 32.6-36.7 | CR123C366B | 100 | 100 | 50 |
| 36.8-41.9 | CR123C400B | 100 | 100 | 50 |
| 42.0-43.2 | CR123C440B | 100 | 100 | 50 |
| 43.3-45.0 | CR123C460B | 100 | 100 | — |

Size 3 — Standard Or Ambient Compensated Class 20 Overload Relay Heaters

Motor Full-Load Amps.

| 3-Phase 3-Heaters | Heater Product Number | Max. Fuse Rating | Max. Breaker Rating | TEC/TECL Rating |
|-------------------|-----------------------|------------------|---------------------|-----------------|
| 17.4-18.4 | CR123F233B | 70 | 70 | 30 |
| 18.5-21.1 | CR123F243B | 80 | 70 | 30 |
| 21.2-22.1 | CR123F270B | 80 | 70 | 30 |
| 22.2-26.1 | CR123F300B | 90 | 70 | 30 |
| 26.2-28.0 | CR123F327B | 100 | 100 | 50 |
| 28.1-31.3 | CR123F357B | 100 | 100 | 50 |
| 31.4-33.3 | CR123F395B | 100 | 100 | 50 |
| 33.4-34.3 | CR123F430B | 100 | 100 | 50 |
| 34.4-40.9 | CR123F487B | 100 | 100 | 50 |
| 41.0-44.7 | CR123F567B | 100 | 100 | 50, 100 |
| 44.8-51.0 | CR123F614B | 100 | 125 | 100 |
| 51.1-52.0 | CR123F658B | 100 | 125 | 100 |
| 52.1-55.4 | CR123F719B | 100 | 125 | 100 |
| 55.5-63.3 | CR123F772B | 100 | 150 | 100 |
| 63.4-66.1 | CR123F848B | 100 | 150 | 100 |
| 66.2-73.5 | CR123F914B | 100 | 150 | 100 |
| 73.6-82.2 | CR123F104C | 100 | 150 | 100 |
| 82.3-90.0 | CR123F114C | 100 | 150 | 100 |

Size 4 — Class 20 Overload Relay Heaters

Motor Full-Load Amps.

| 3-Phase 3-Heaters | Heater Product Number | Max. Fuse Rating | Max. Breaker Rating | TEC/TECL Rating |
|-------------------|-----------------------|------------------|---------------------|-----------------|
| 28.8-31.1 | CR123F357B | 110 | 100 | 50 |
| 31.2-33.3 | CR123F395B | 125 | 100 | 50 |
| 33.4-35.6 | CR123F430B | 125 | 100 | 50 |
| 35.7-42.6 | CR123F487B | 150 | 100 | 50, 100 |
| 42.7-45.2 | CR123F567B | 175 | 125 | 50, 100 |
| 45.3-51.1 | CR123F614B | 175 | 150 | 100 |
| 51.2-53.9 | CR123F658B | 200 | 150 | 100 |
| 54.0-56.9 | CR123F719B | 200 | 150 | 100 |
| 57.0-65.2 | CR123F772B | 200 | 175 | 100 |
| 65.3-68.6 | CR123F848B | 200 | 200 | 100 |
| 68.7-74.0 | CR123F914B | 200 | 200 | 100 |
| 74.1-86.0 | CR123F104C | 200 | 200 | 100, 150 |
| 86.1-90.7 | CR123F114C | 200 | 225 | 150 |
| 90.8-103 | CR123F118C | 200 | 225 | 150 |
| 104-109 | CR123F133C | 200 | 225 | 150 |
| 110-119 | CR123F149C | 200 | 225 | 150 |
| 120-131 | CR123F161C | 200 | 225 | 150 |
| 132-135 | CR123F174C | 200 | 225 | 150 |



NEMA Full Voltage Power Devices Pumping Panels

Section 1

CR340, CR341

Heaters

Class 20 Overload Heaters (continued)

See page 1-188 for ordering information and pricing.

Size 5 – Class 20 Overload Relay Heaters

| Motor Full-Load Amps. | | | |
|-----------------------|-----------------------|---------------------|------------------------|
| 3-Phase, 3-Heaters | Heater Product Number | Maximum Fuse Rating | Maximum Circuit Rating |
| 109-118 | CR123C592A | 400 | 600 |
| 119-128 | CR123C630A | 400 | 600 |
| 129-138 | CR123C695A | 400 | 600 |
| 139-155 | CR123C778A | 400 | 600 |
| 156-168 | CR123C867A | 400 | 600 |
| 169-184 | CR123C955A | 400 | 600 |
| 185-200 | CR123C104B | 400 | 600 |
| 201-221 | CR123C113B | 400 | 600 |
| 222-237 | CR123C125B | 400 | 600 |
| 238-262 | CR123C137B | 400 | 600 |
| 263-270 | CR123C151B | 400 | 600 |

Size 6 – Class 20 Overload Relay Heaters

| Motor Full-Load Amps. | |
|-----------------------|-----------------------|
| 3-Phase, 3-Heaters | Heater Product Number |
| 181-197 | CR123C220A |
| 198-214 | CR123C239A |
| 215-238 | CR123C268A |
| 239-258 | CR123C301A |
| 259-290 | CR123C326A |
| 291-346 | CR123C356A |
| 347-387 | CR123C379A |
| 388-424 | CR123C419A |
| 425-467 | CR123C466A |
| 468-516 | CR123C526A |
| 517-540 | CR123C592A |

Size 7 – Class 20 Overload Relay Heaters

| Motor Full-Load Amps. | |
|-----------------------|-----------------------|
| 3-Phase, 3-Heaters | Heater Product Number |
| 346-387 | CR123C326A |
| 388-461 | CR123C356A |
| 462-515 | CR123C379A |
| 516-565 | CR123C419A |
| 566-622 | CR123C466A |
| 623-688 | CR123C526A |
| 689-763 | CR123C592A |
| 764-810 | CR123C630A |

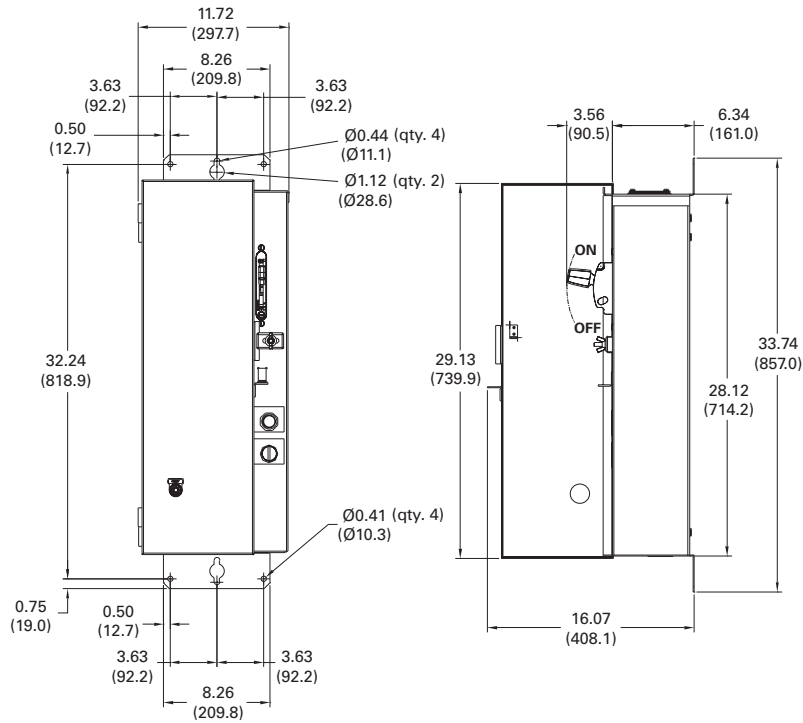


NEMA Full Voltage Power Devices Pumping Panels

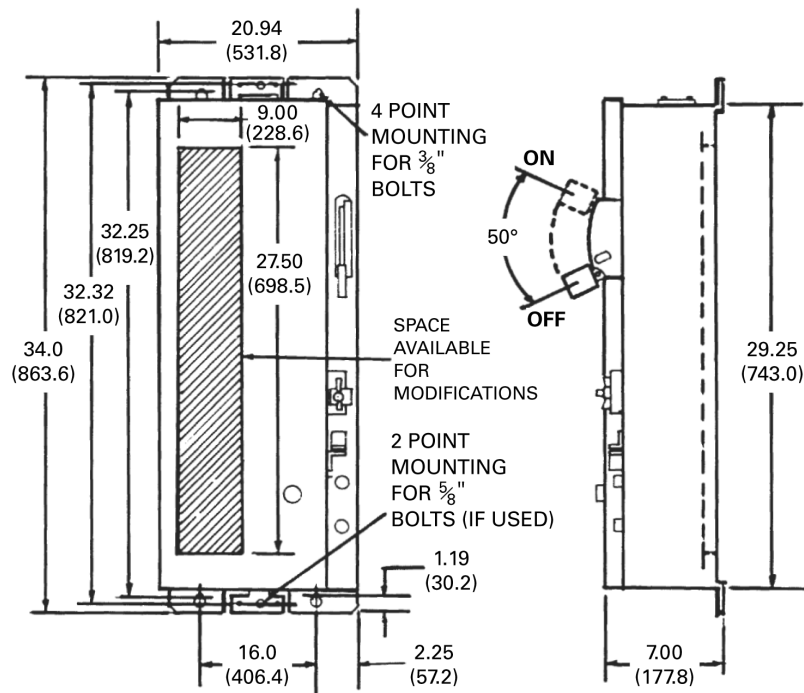
CR340, CR341

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1



CR340, CR341 NEMA Sizes 1 and 2 Narrow-Type Enclosures; 32 lbs. (Size 1), 47 lbs. (Size 2)



CR340, CR341 NEMA Sizes 1 and 2 Wide-Type Enclosures; 85 lbs. (Size 1), 90 lbs. (Size 2)

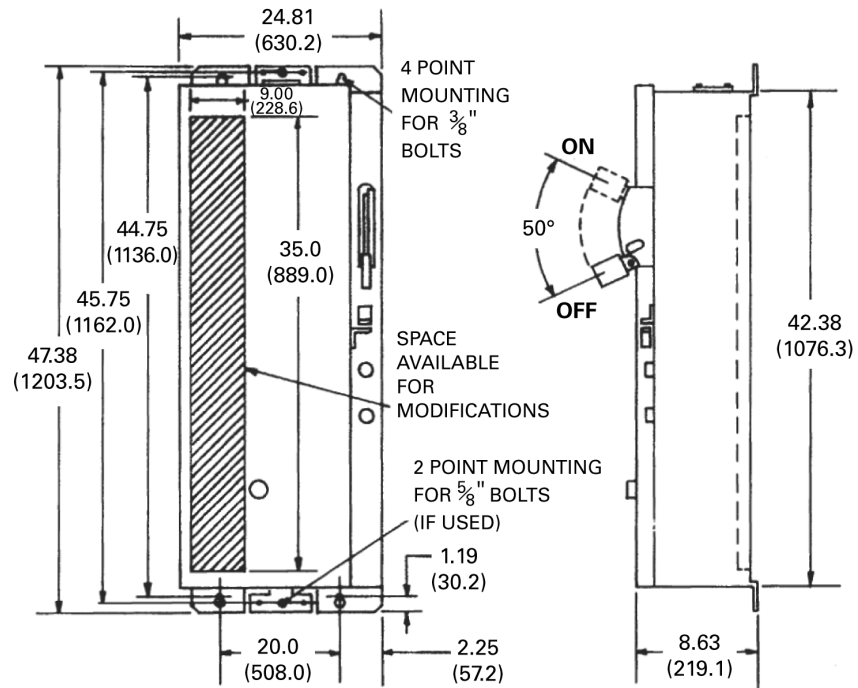


NEMA Full Voltage Power Devices Pumping Panels

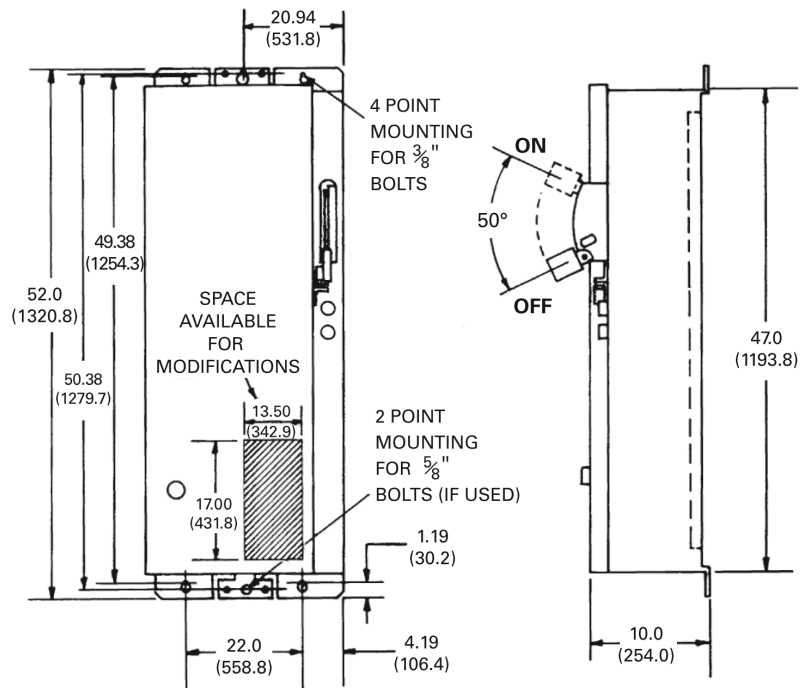
CR340, CR341

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1



CR340, CR341 NEMA Sizes 3 and 4 Wide-Type Enclosures; 195 lbs.



CR340, CR341 NEMA Size 5 Wide-Type Enclosures; 285 lbs.

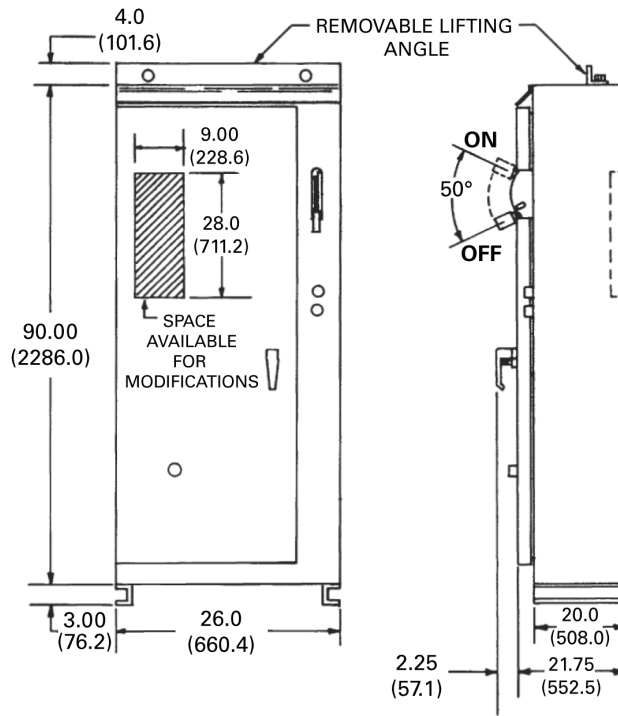


NEMA Full Voltage Power Devices Pumping Panels

CR340, CR341

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1



CR340, CR341 NEMA Sizes 6 and 7 Wide-Type Enclosures; 1,200 lbs. (Size 6), 1,300 lbs. (Size 7)



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305, CR385 Magnetic Contactors

1600 Hp Maximum
NEMA Sizes 00-9
600V Maximum 50/60 Hertz
2500 Amperes Maximum

Section 1

Application

GE's magnetic contactor is designed for use on today's modern equipment. Especially suitable for handling the switching of resistance heating and capacitor circuit loads, their compact size also fits the needs of the panel building industry. In addition, they may be used for controlling ac motors where overload protection is provided separately.

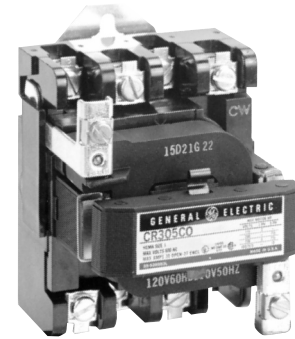
Features

- Easy disassembly for maintenance and inspection of contacts.
- Auxiliary contacts with vertical contact surfaces enclosed to prevent accumulation of dust and dirt.
- Attractive, modern squared-off design enclosure.
- Magnet faces specially treated to resist rust.
- Provision for ring terminals may be specified as a special feature, if required. No price addition applies for this optional feature.

Product Number Selection Instructions

1. Specify contactor by product number.
Example: CR305B103 at **\$186.00, GO-10G** is a Size 0, 18-Ampere, three-pole contactor (extra pole to be used as an auxiliary), with 230-240 Volt 60 Hertz coil. Contactor is in Type 1 enclosure.
2. Order forms not listed or with special features by complete description.
Example: Similar to CR305B103 at **\$186.00** except with a red indicating light in cover at **\$90.00**. Total **List Price: \$276.00, GO-10G**.
3. The final letter of the product number denotes extra auxiliary contacts (sometimes referred to as auxiliary interlocks). Order the desired extra auxiliary contacts by replacing the final letter from first column of auxiliary interlock table (see page 1-130).
Example: CR305C102AAB at **\$282.00, GO-10G**, is Size 1 contactor with one extra auxiliary contact, normally open.
4. Contactors are available with coils of other ratings (at same price) than those shown on pages 1-194 to 1-196. Refer to coil suffix table on page 1-6 for information. To order contactor forms with these other coil ratings, insert suffix from table in place of fifth and sixth numbers of contactor product number shown on pages 1-194 to 1-196.
Example: A CR305C123 NEMA Size 1, three-pole contactor in Type 1 enclosure, except with 24 Volt, 60 Hertz coil, becomes a CR305C124 product number.

For NEMA Size 7-9 contactors with other control circuit voltages, contact your nearest GE Representative.



Typical CR305 Open-Type Magnetic Contactor

5. Holding Contacts

Each CR305 contactor is furnished with a normally open auxiliary contact for use as a holding interlock in three-wire control circuits. This auxiliary contact has the same rating as a main pole (contact) for Sizes 00, 0, and 1. If this contact is not required on these sizes, specify contactor with one less pole.

6. 50 Hertz Contactors

Pricing of contactors for use on 50 Hertz is the same as in table for 60 Hertz. See three-phase horsepower ratings for 380-415 Volts, 50 Hertz on page 1-4.

7. Product Notes

Motor full-load current should not exceed continuous ampere rating of contactor.

Reference Publications

| Instructions | Publication Number |
|--------------|--------------------|
| NEMA Size | |
| 00, 0, 1 | GEH-5190 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |
| 7-9 | GEH-5108 |

Magnetic Nonreversing Contactors (CR305, CR385) – Contents

| | |
|---|-------|
| Application Information and Selection Instructions (CR305, CR385) | 1-193 |
| NEMA Sizes 00-9, One- and Two-Pole (CR305, CR385) | 1-194 |
| NEMA Sizes 00-9, Three-Pole (CR305, CR385) | 1-195 |
| NEMA Sizes 00-9, Four-Pole (CR305, CR385) | 1-196 |
| Factory Installed Modifications (CR305, CR385) | 1-197 |
| Outlines and Dimensions (CR305, CR385) | 1-208 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Section 1

Single-phase, One- and Two-Pole

Nonreversing, Open, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 00-9

600 Volts Maximum 50/60 Hertz

One- and Two-Pole:

List price includes holding contact (normally open) and pressure terminals for the line and load connections on NEMA Sizes 0-8 in Types 1, 3R, 12 and 4/4X enclosure, and Open Type NEMA Sizes 00-5. Open Type, NEMA Sizes 6-8 are supplied with bus bar type connections only. However, pressure box terminals are available, if required, and can be ordered by description, using the terminology: "Similar to (a listed product number) except with pressure box terminals." All NEMA Size 9 contactor forms are furnished with bus bar type connections only as standard.

CR305, Single-Phase, 1-Pole Magnetic Contactors NEMA sizes 00-1

| NEMA Size | Continuous Ampere Rating ¹ | | Voltage @ 60 Hz | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | | | |
|-----------|---------------------------------------|--------|-----------------|------------|-----------------|------------|-----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | Enclosed | Open | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | CR305 | GO-10G | | | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G |
| 00 | 9A | 10A | 115-120 | 1/3 | Use NEMA Size 0 | | Use NEMA Size 0 | | — | — | — | — | — | — | | |
| 00 | 9A | 10A | 230-240 | 1 | Use NEMA Size 0 | | Use NEMA Size 0 | | — | — | — | — | — | — | | |
| 0 | 18A | 20A | 115-120 | 1 | J002ADA | \$138.00 | J102ADA | \$150.00 | — | — | — | — | — | — | | |
| 0 | 18A | 20A | 230-240 | 2 | J003ADA | \$138.00 | J103ADA | \$150.00 | — | — | — | — | — | — | | |
| 1 | 27A | 30A | 115-120 | 2 | K002ADA | \$168.00 | K102ADA | \$180.00 | — | — | — | — | K402ADA | \$396.00 | | |
| 1 | 27A | 30A | 230-240 | 3 | K003ADA | \$168.00 | K103ADA | \$180.00 | — | — | — | — | K403ADA | \$396.00 | | |

CR305, Single-Phase, 2-Pole Magnetic Contactors NEMA sizes 00-6

| NEMA Size | Continuous Ampere Rating ¹ | | Voltage @ 60 Hz | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | | | |
|-----------|---------------------------------------|--------|-----------------|------------|----------------|------------|----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|----------------|------------|
| | Enclosed | Open | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | CR305 | GO-10G | | | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G |
| 00 | 9A | 10A | 115-120 | 1/3 | H002 | \$120.00 | H102 | \$132.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | | | |
| 00 | 9A | 10A | 230-240 | 1 | H003 | \$120.00 | H103 | \$132.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | | | |
| 0 | 18A | 20A | 115-120 | 1 | J002 | \$156.00 | J102 | \$168.00 | J602 | \$240.00 | J202 | \$240.00 | J402 | \$378.00 | | |
| 0 | 18A | 20A | 230-240 | 2 | J003 | \$156.00 | J103 | \$168.00 | J603 | \$240.00 | J203 | \$240.00 | J403 | \$378.00 | | |
| 1 | 27A | 30A | 115-120 | 2 | K002 | \$186.00 | K102 | \$198.00 | K602 | \$270.00 | K202 | \$270.00 | K402 | \$414.00 | | |
| 1 | 27A | 30A | 230-240 | 3 | K003 | \$186.00 | K103 | \$198.00 | K603 | \$270.00 | K203 | \$270.00 | K403 | \$414.00 | | |
| 2 | 45A | 50A | 115-120 | 3 | L002 | \$348.00 | L102 | \$408.00 | L602 | \$540.00 | L202 | \$540.00 | L402 | \$840.00 | | |
| 2 | 45A | 50A | 230-240 | 7 1/2 | L003 | \$348.00 | L103 | \$408.00 | L603 | \$540.00 | L203 | \$540.00 | L403 | \$840.00 | | |
| 3 | 90A | 100A | 115-120 | 7 1/2 | M002 | \$552.00 | M102 | \$672.00 | M602 | \$828.00 | M202 | \$828.00 | M402 | \$1284.00 | | |
| 3 | 90A | 100A | 230-240 | 15 | M003 | \$552.00 | M103 | \$672.00 | M603 | \$828.00 | M203 | \$828.00 | M403 | \$1284.00 | | |
| 3 | 90A | 100A | 460-480 | 25 | M004 | \$552.00 | M104 | \$672.00 | M604 | \$828.00 | M204 | \$828.00 | M404 | \$1284.00 | | |
| 3 | 90A | 100A | 575-600 | 25 | M005 | \$552.00 | M105 | \$672.00 | M605 | \$828.00 | M205 | \$828.00 | M405 | \$1284.00 | | |
| 4 | 135A | 150A | 115-120 | — | N002 | \$1332.00 | N102 | \$1584.00 | N602 | \$2100.00 | N202 | \$2100.00 | N402 | \$2628.00 | | |
| 4 | 135A | 150A | 200-208 | — | N023 | \$1332.00 | N123 | \$1584.00 | N623 | \$2100.00 | N223 | \$2100.00 | N423 | \$2628.00 | | |
| 4 | 135A | 150A | 230-240 | — | N003 | \$1332.00 | N103 | \$1584.00 | N603 | \$2100.00 | N203 | \$2100.00 | N403 | \$2628.00 | | |
| 4 | 135A | 150A | 460-480 | — | N004 | \$1332.00 | N104 | \$1584.00 | N604 | \$2100.00 | N204 | \$2100.00 | N404 | \$2628.00 | | |
| 4 | 135A | 150A | 575-600 | — | N005 | \$1332.00 | N105 | \$1584.00 | N605 | \$2100.00 | N205 | \$2100.00 | N405 | \$2628.00 | | |
| 5 | 270A | 300A | 115-120 | — | P002 | \$2886.00 | P102 | \$3348.00 | P602 | \$4668.00 | P202 | \$4668.00 | P402 | \$4668.00 | | |
| 5 | 270A | 300A | 200-208 | — | P023 | \$2886.00 | P123 | \$3348.00 | P623 | \$4668.00 | P223 | \$4668.00 | P423 | \$4668.00 | | |
| 5 | 270A | 300A | 230-240 | — | P003 | \$2886.00 | P103 | \$3348.00 | P603 | \$4668.00 | P203 | \$4668.00 | P403 | \$4668.00 | | |
| 5 | 270A | 300A | 460-480 | — | P004 | \$2886.00 | P104 | \$3348.00 | P604 | \$4668.00 | P204 | \$4668.00 | P404 | \$4668.00 | | |
| 5 | 270A | 300A | 575-600 | — | P005 | \$2886.00 | P105 | \$3348.00 | P605 | \$4668.00 | P205 | \$4668.00 | P405 | \$4668.00 | | |
| 6 | 540A | 600A | 115-120 | — | HR002 | \$7344.00 | HR102AA2A | \$9378.00 | HR602AA2A | \$10998.00 | HR202AA2A | \$10998.00 | HR402AA2A | \$12378.00 | | |
| 6 | 540A | 600A | 200-208 | — | HR023 | \$7344.00 | HR123AA2A | \$9378.00 | HR623AA2A | \$10998.00 | HR223AA2A | \$10998.00 | HR423AA2A | \$12378.00 | | |
| 6 | 540A | 600A | 230-240 | — | HR003 | \$7344.00 | HR103AA2A | \$9378.00 | HR603AA2A | \$10998.00 | HR203AA2A | \$10998.00 | HR403AA2A | \$12378.00 | | |
| 6 | 540A | 600A | 460-480 | — | HR004 | \$7344.00 | HR104AA2A | \$9378.00 | HR604AA2A | \$10998.00 | HR204AA2A | \$10998.00 | HR404AA2A | \$12378.00 | | |
| 6 | 540A | 600A | 575-600 | — | HR005 | \$7344.00 | HR105AA2A | \$9378.00 | HR605AA2A | \$10998.00 | HR205AA2A | \$10998.00 | HR405AA2A | \$12378.00 | | |

CR385, Single-Phase, 2-Pole Magnetic Contactors NEMA sizes 7-9

¹Motor full-load current should not exceed continuous ampere rating of contactor.

| NEMA Size | Continuous Ampere Rating ¹ | Control Circuit Voltage | Horsepower | Open Type | |
|-----------|---------------------------------------|-------------------------|------------|----------------|------------|
| | | | | Product Number | List Price |
| 7 | 900A | 115-120 | — | S002AA1A | \$10722.00 |
| 7 | 900A | 230-240 | — | S003AA1A | \$10722.00 |
| 7 | 900A | 460-480 | — | S004AA1A | \$10722.00 |
| 7 | 900A | 575-600 | — | S005AA1A | \$10722.00 |
| 8 | 1350A | 115-120 | — | T002AA1A | \$17208.00 |
| 8 | 1350A | 230-240 | — | T003AA1A | \$17208.00 |
| 8 | 1350A | 460-480 | — | T004AA1A | \$17208.00 |
| 8 | 1350A | 575-600 | — | T005AA1A | \$17208.00 |
| 9 | 2500A | 115-120 | — | U002AA1A | \$22800.00 |
| 9 | 2500A | 230-240 | — | U003AA1A | \$22800.00 |
| 9 | 2500A | 460-480 | — | U004AA1A | \$22800.00 |
| 9 | 2500A | 575-600 | — | U005AA1A | \$22800.00 |



Product Number Selection Instructions: See page 1-193

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Section 1

Three-phase, Three-Pole
 Nonreversing, Open, NEMA Type 1, 3R, 12, 4/4X
 NEMA Sizes 00-9
 600 Volts Maximum 50/60 Hertz

Three-Pole:

List price includes holding contact (normally open) and pressure terminals for the line and load connections on all NEMA Sizes 00-5. All NEMA Size 6-9 contactor forms are furnished with bus bar type connections only as standard.

CR305, Three-Phase, 3-Pole Magnetic Contactors NEMA sizes 00-6

| NEMA Size | Continuous Ampere Rating ¹ | | Voltage @ 60 Hz | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|---------------------------------------|------|-----------------|------------|----------------|------------|----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|
| | Enclosed | Open | | | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price | Product Number | List Price |
| | | | | | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G | CR305 | GO-10G |
| 00 | 9A | 10A | 115-120 | — | A002 | \$138.00 | A102 | \$150.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9A | 10A | 200-208 | 1 1/2 | A023 | \$138.00 | A123 | \$150.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9A | 10A | 230-240 | 1 1/2 | A003 | \$138.00 | A103 | \$150.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9A | 10A | 460-480 | 2 | A004 | \$138.00 | A104 | \$150.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 00 | 9A | 10A | 575-600 | 2 | A005 | \$138.00 | A105 | \$150.00 | Use NEMA Size 0 | | Use NEMA Size 0 | | Use NEMA Size 0 | |
| 0 | 18A | 20A | 115-120 | — | B002 | \$174.00 | B102 | \$186.00 | B602 | \$258.00 | B202 | \$258.00 | B402 | \$396.00 |
| 0 | 18A | 20A | 200-208 | 3 | B023 | \$174.00 | B123 | \$186.00 | B623 | \$258.00 | B223 | \$258.00 | B423 | \$396.00 |
| 0 | 18A | 20A | 230-240 | 3 | B003 | \$174.00 | B103 | \$186.00 | B603 | \$258.00 | B203 | \$258.00 | B403 | \$396.00 |
| 0 | 18A | 20A | 460-480 | 5 | B004 | \$174.00 | B104 | \$186.00 | B604 | \$258.00 | B204 | \$258.00 | B404 | \$396.00 |
| 0 | 18A | 20A | 575-600 | 5 | B005 | \$174.00 | B105 | \$186.00 | B605 | \$258.00 | B205 | \$258.00 | B405 | \$396.00 |
| 1 | 27A | 30A | 115-120 | — | C002 | \$204.00 | C102 | \$216.00 | C602 | \$288.00 | C202 | \$288.00 | C402 | \$432.00 |
| 1 | 27A | 30A | 200-208 | 7 1/2 | C023 | \$204.00 | C123 | \$216.00 | C623 | \$288.00 | C223 | \$288.00 | C423 | \$432.00 |
| 1 | 27A | 30A | 230-240 | 7 1/2 | C003 | \$204.00 | C103 | \$216.00 | C603 | \$288.00 | C203 | \$288.00 | C403 | \$432.00 |
| 1 | 27A | 30A | 460-480 | 10 | C004 | \$204.00 | C104 | \$216.00 | C604 | \$288.00 | C204 | \$288.00 | C404 | \$432.00 |
| 1 | 27A | 30A | 575-600 | 10 | C005 | \$204.00 | C105 | \$216.00 | C605 | \$288.00 | C205 | \$288.00 | C405 | \$432.00 |
| 2 | 45A | 50A | 115-120 | — | D002 | \$372.00 | D102 | \$432.00 | D602 | \$564.00 | D202 | \$564.00 | D402 | \$864.00 |
| 2 | 45A | 50A | 200-208 | 10 | D023 | \$372.00 | D123 | \$432.00 | D623 | \$564.00 | D223 | \$564.00 | D423 | \$864.00 |
| 2 | 45A | 50A | 230-240 | 15 | D003 | \$372.00 | D103 | \$432.00 | D603 | \$564.00 | D203 | \$564.00 | D403 | \$864.00 |
| 2 | 45A | 50A | 460-480 | 25 | D004 | \$372.00 | D104 | \$432.00 | D604 | \$564.00 | D204 | \$564.00 | D404 | \$864.00 |
| 2 | 45A | 50A | 575-600 | 25 | D005 | \$372.00 | D105 | \$432.00 | D605 | \$564.00 | D205 | \$564.00 | D405 | \$864.00 |
| 3 | 90A | 100A | 115-120 | — | E002 | \$600.00 | E102 | \$720.00 | E602 | \$876.00 | E202 | \$876.00 | E402 | \$1332.00 |
| 3 | 90A | 100A | 200-208 | 25 | E023 | \$600.00 | E123 | \$720.00 | E623 | \$876.00 | E223 | \$876.00 | E423 | \$1332.00 |
| 3 | 90A | 100A | 230-240 | 30 | E003 | \$600.00 | E103 | \$720.00 | E603 | \$876.00 | E203 | \$876.00 | E403 | \$1332.00 |
| 3 | 90A | 100A | 460-480 | 50 | E004 | \$600.00 | E104 | \$720.00 | E604 | \$876.00 | E204 | \$876.00 | E404 | \$1332.00 |
| 3 | 90A | 100A | 575-600 | 50 | E005 | \$600.00 | E105 | \$720.00 | E605 | \$876.00 | E205 | \$876.00 | E405 | \$1332.00 |
| 4 | 135A | 150A | 115-120 | — | F002 | \$1440.00 | F102 | \$1692.00 | F602 | \$2208.00 | F202 | \$2208.00 | F402 | \$2736.00 |
| 4 | 135A | 150A | 200-208 | 40 | F023 | \$1440.00 | F123 | \$1692.00 | F623 | \$2208.00 | F223 | \$2208.00 | F423 | \$2736.00 |
| 4 | 135A | 150A | 230-240 | 50 | F003 | \$1440.00 | F103 | \$1692.00 | F603 | \$2208.00 | F203 | \$2208.00 | F403 | \$2736.00 |
| 4 | 135A | 150A | 460-480 | 100 | F004 | \$1440.00 | F104 | \$1692.00 | F604 | \$2208.00 | F204 | \$2208.00 | F404 | \$2736.00 |
| 4 | 135A | 150A | 575-600 | 100 | F005 | \$1440.00 | F105 | \$1692.00 | F605 | \$2208.00 | F205 | \$2208.00 | F405 | \$2736.00 |
| 5 | 270A | 300A | 115-120 | — | G002 | \$3138.00 | G102 | \$3600.00 | G602 | \$4920.00 | G202 | \$4920.00 | G402 | \$4920.00 |
| 5 | 270A | 300A | 200-208 | 75 | G023 | \$3138.00 | G123 | \$3600.00 | G623 | \$4920.00 | G223 | \$4920.00 | G423 | \$4920.00 |
| 5 | 270A | 300A | 230-240 | 100 | G003 | \$3138.00 | G103 | \$3600.00 | G603 | \$4920.00 | G203 | \$4920.00 | G403 | \$4920.00 |
| 5 | 270A | 300A | 460-480 | 200 | G004 | \$3138.00 | G104 | \$3600.00 | G604 | \$4920.00 | G204 | \$4920.00 | G404 | \$4920.00 |
| 5 | 270A | 300A | 575-600 | 200 | G005 | \$3138.00 | G105 | \$3600.00 | G605 | \$4920.00 | G205 | \$4920.00 | G405 | \$4920.00 |
| 6 | 540A | 600A | 115-120 | — | HH002 | \$8568.00 | HH102AA2A | \$10602.00 | HH602AA2A | \$12222.00 | HH202AA2A | \$12222.00 | HH402AA2A | \$13602.00 |
| 6 | 540A | 600A | 200-208 | 150 | HH023 | \$8568.00 | HH123AA2A | \$10602.00 | HH623AA2A | \$12222.00 | HH223AA2A | \$12222.00 | HH423AA2A | \$13602.00 |
| 6 | 540A | 600A | 230-240 | 200 | HH003 | \$8568.00 | HH103AA2A | \$10602.00 | HH603AA2A | \$12222.00 | HH203AA2A | \$12222.00 | HH403AA2A | \$13602.00 |
| 6 | 540A | 600A | 460-480 | 400 | HH004 | \$8568.00 | HH104AA2A | \$10602.00 | HH604AA2A | \$12222.00 | HH204AA2A | \$12222.00 | HH404AA2A | \$13602.00 |
| 6 | 540A | 600A | 575-600 | 400 | HH005 | \$8568.00 | HH105AA2A | \$10602.00 | HH605AA2A | \$12222.00 | HH205AA2A | \$12222.00 | HH405AA2A | \$13602.00 |

CR385, Three-Phase, 3-Pole Magnetic Contactors NEMA sizes 7-9

¹Motor full-load current should not exceed continuous ampere rating of contactor.

| NEMA Size | Continuous Ampere Rating ¹ | Control Motor Voltage | Horsepower | Circuit Voltage | Open Type | |
|-----------|---------------------------------------|-----------------------|------------|-----------------|----------------|------------|
| | | | | | Product Number | List Price |
| | | | | | CR385 | GO-10G |
| 7 | 900A | N/A | — | 115 | J002AA1A | \$12228.00 |
| 7 | 900A | 220-240 | 300 | 230 | J003AA1A | \$12228.00 |
| 7 | 900A | 440-480 | 600 | 460 | J004AA1A | \$12228.00 |
| 7 | 900A | 550-600 | 600 | 575 | J005AA1A | \$12228.00 |
| 8 | 1350A | N/A | — | 115 | K002AA1A | \$18876.00 |
| 8 | 1350A | 220-240 | 450 | 230 | K003AA1A | \$18876.00 |
| 8 | 1350A | 440-480 | 900 | 460 | K004AA1A | \$18876.00 |
| 8 | 1350A | 550-600 | 900 | 575 | K005AA1A | \$18876.00 |
| 9 | 2500A | N/A | — | 115 | L002AA1A | \$25410.00 |
| 9 | 2500A | 220-240 | 800 | 230 | L003AA1A | \$25410.00 |
| 9 | 2500A | 440-480 | 1600 | 460 | L004AA1A | \$25410.00 |
| 9 | 2500A | 550-600 | 1600 | 575 | L005AA1A | \$25410.00 |



Enclosure Descriptions: See Section 12

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Section 1

Three-phase, Four-Pole

Nonreversing, Open, NEMA Type 1, 3R, 12, 4/4X

NEMA Sizes 00-5

600 Volts Maximum 50/60 Hertz

Four-Pole:

List price includes holding contact (normally open) and pressure terminals for the line and load connector.

CR305, Three-Phase, 4-Pole Magnetic Contactors NEMA sizes 00-5

| NEMA Size | Continuous Ampere Rating ¹ | | Voltage @ 60 Hz | Horsepower | Open Type | | NEMA Type 1 | | NEMA Type 3R | | NEMA Type 12 | | NEMA Type 4/4X | |
|-----------|---------------------------------------|------|-----------------|------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|-------------------|
| | Enclosed | Open | | | Product Number CR305 | List Price GO-10G | Product Number CR305 | List Price GO-10G | Product Number CR305 | List Price GO-10G | Product Number CR305 | List Price GO-10G | Product Number CR305 | List Price GO-10G |
| 0 | 18A | 20A | 115-120 | — | R002AEA | \$222.00 | R102AEA | \$234.00 | R602AEA | \$306.00 | R202AEA | \$306.00 | R402AEA | \$450.00 |
| 0 | 18A | 20A | 200-208 | 3 | R023AEA | \$222.00 | R123AEA | \$234.00 | R623AEA | \$306.00 | R223AEA | \$306.00 | R423AEA | \$450.00 |
| 0 | 18A | 20A | 230-240 | 3 | R003AEA | \$222.00 | R103AEA | \$234.00 | R603AEA | \$306.00 | R203AEA | \$306.00 | R403AEA | \$450.00 |
| 0 | 18A | 20A | 460-480 | 5 | R004AEA | \$222.00 | R104AEA | \$234.00 | R604AEA | \$306.00 | R204AEA | \$306.00 | R404AEA | \$450.00 |
| 0 | 18A | 20A | 575-600 | 5 | R005AEA | \$222.00 | R105AEA | \$234.00 | R605AEA | \$306.00 | R205AEA | \$306.00 | R405AEA | \$450.00 |
| 1 | 27A | 30A | 115-120 | — | S002AEA | \$252.00 | S102AEA | \$264.00 | S602AEA | \$336.00 | S202AEA | \$336.00 | S402AEA | \$480.00 |
| 1 | 27A | 30A | 200-208 | 7 1/2 | S023AEA | \$252.00 | S123AEA | \$264.00 | S623AEA | \$336.00 | S223AEA | \$336.00 | S423AEA | \$480.00 |
| 1 | 27A | 30A | 230-240 | 7 1/2 | S003AEA | \$252.00 | S103AEA | \$264.00 | S603AEA | \$336.00 | S203AEA | \$336.00 | S403AEA | \$480.00 |
| 1 | 27A | 30A | 460-480 | 10 | S004AEA | \$252.00 | S104AEA | \$264.00 | S604AEA | \$336.00 | S204AEA | \$336.00 | S404AEA | \$480.00 |
| 1 | 27A | 30A | 575-600 | 10 | S005AEA | \$252.00 | S105AEA | \$264.00 | S605AEA | \$336.00 | S205AEA | \$336.00 | S405AEA | \$480.00 |
| 2 | 45A | 50A | 115-120 | — | T002 | \$480.00 | T102 | \$540.00 | T602 | \$672.00 | T202 | \$672.00 | T402 | \$1140.00 |
| 2 | 45A | 50A | 200-208 | 10 | T023 | \$480.00 | T123 | \$540.00 | T623 | \$672.00 | T223 | \$672.00 | T423 | \$1140.00 |
| 2 | 45A | 50A | 230-240 | 15 | T003 | \$480.00 | T103 | \$540.00 | T603 | \$672.00 | T203 | \$672.00 | T403 | \$1140.00 |
| 2 | 45A | 50A | 460-480 | 25 | T004 | \$480.00 | T104 | \$540.00 | T604 | \$672.00 | T204 | \$672.00 | T404 | \$1140.00 |
| 2 | 45A | 50A | 575-600 | 25 | T005 | \$480.00 | T105 | \$540.00 | T605 | \$672.00 | T205 | \$672.00 | T405 | \$1140.00 |
| 3 | 90A | 100A | 115-120 | — | U002 | \$768.00 | U102 | \$888.00 | U602 | \$1044.00 | U202 | \$1044.00 | U402 | \$1668.00 |
| 3 | 90A | 100A | 200-208 | 25 | U023 | \$768.00 | U123 | \$888.00 | U623 | \$1044.00 | U223 | \$1044.00 | U423 | \$1668.00 |
| 3 | 90A | 100A | 230-240 | 30 | U003 | \$768.00 | U103 | \$888.00 | U603 | \$1044.00 | U203 | \$1044.00 | U403 | \$1668.00 |
| 3 | 90A | 100A | 460-480 | 50 | U004 | \$768.00 | U104 | \$888.00 | U604 | \$1044.00 | U204 | \$1044.00 | U404 | \$1668.00 |
| 3 | 90A | 100A | 575-600 | 50 | U005 | \$768.00 | U105 | \$888.00 | U605 | \$1044.00 | U205 | \$1044.00 | U405 | \$1668.00 |
| 4 | 135A | 150A | 115-120 | — | W002 | \$2004.00 | W102 | \$2256.00 | W602 | \$2952.00 | W202 | \$2952.00 | W402 | \$3732.00 |
| 4 | 135A | 150A | 200-208 | 40 | W023 | \$2004.00 | W123 | \$2256.00 | W623 | \$2952.00 | W223 | \$2952.00 | W423 | \$3732.00 |
| 4 | 135A | 150A | 230-240 | 50 | W003 | \$2004.00 | W103 | \$2256.00 | W603 | \$2952.00 | W203 | \$2952.00 | W403 | \$3732.00 |
| 4 | 135A | 150A | 460-480 | 100 | W004 | \$2004.00 | W104 | \$2256.00 | W604 | \$2952.00 | W204 | \$2952.00 | W404 | \$3732.00 |
| 4 | 135A | 150A | 575-600 | 100 | W005 | \$2004.00 | W105 | \$2256.00 | W605 | \$2952.00 | W205 | \$2952.00 | W405 | \$3732.00 |
| 5 | 270A | 300A | 115-120 | — | Z002 | \$5766.00 | Z102 | \$6690.00 | Z602 | \$8142.00 | Z202 | \$8142.00 | Z402 | \$8142.00 |
| 5 | 270A | 300A | 200-208 | 75 | Z023 | \$5766.00 | Z123 | \$6690.00 | Z623 | \$8142.00 | Z223 | \$8142.00 | Z423 | \$8142.00 |
| 5 | 270A | 300A | 230-240 | 100 | Z003 | \$5766.00 | Z103 | \$6690.00 | Z603 | \$8142.00 | Z203 | \$8142.00 | Z403 | \$8142.00 |
| 5 | 270A | 300A | 460-480 | 200 | Z004 | \$5766.00 | Z104 | \$6690.00 | Z604 | \$8142.00 | Z204 | \$8142.00 | Z404 | \$8142.00 |
| 5 | 270A | 300A | 575-600 | 200 | Z005 | \$5766.00 | Z105 | \$6690.00 | Z605 | \$8142.00 | Z205 | \$8142.00 | Z405 | \$8142.00 |

¹Motor full-load current should not exceed continuous ampere rating of contactor.



Product Number Selection Instructions: See page 1-193

Other Coil Voltages: See page 1-6

Factory Installed Modifications: See pages 1-197 to 1-201

Field Installed Modifications: See pages 1-202 to 1-207

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305, CR385 Magnetic Contactors

Section 1

Factory-Installed Modifications

Contactor Modifications—Factory Installed

Factory-installed modifications are available for those contactors as indicated in the tables. Shown here are the **List Price Additions** to standard product listed forms and are subject to **GO-10G** discount. Prices shown are not to be used as separate selling prices. For field modification kits see pages 1-202 to 1-207. Supplying combinations of these items may affect standard enclosure dimensions and type of construction. In extreme instances, it may not be possible to furnish all of them within the limitations of a contactor design.

| Type of Installation/ Contactors | Item No. | Modifications | Enclosure Type | NEMA Size | | | | | | | | |
|---|----------|--|----------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | |
| | | | | List Price Addition, GO-10G | | | | | | | | |
| Pilot Devices Mounted in Cover or Flange of CR305 | 1 | Push Buttons | | | | | | | | | | |
| | 1a | START-STOP ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 |
| | 1b | OFF-ON ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 |
| | 1c | START-STOP (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 1d | START Push Button and H-O-A Selector Switch (HEAVY-DUTY, CR104P) | Any | ² | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 | \$264.00 |
| | 1e | Single Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | 1 | ² | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 | \$40.00 |
| | | Single Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | Any | ² | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 |
| | 1f | Single Illuminated Push Button, Unwired (Specify Marking) (HEAVY-DUTY, CR104P) | Any | ² | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 |
| | 2 | Selector Switches | | | | | | | | | | |
| | 2a | HAND-OFF-AUTO ^{1,3} | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 |
| | | HAND-OFF-AUTO ^{1,3} (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 2b | OFF-ON ¹ | 1 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$132.00 |
| | | OFF-ON (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 2c | Single Selector Switch Maintained (Specify Marking) | | | | | | | | | | |
| | | Two- or Three-Position (Specify Position) ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | | Four-Position ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 | \$150.00 |
| | 2d | Key Operated Maintained (Specify Marking and Key-Removal Position) | | | | | | | | | | |
| | | Two- or Three-Position ⁴ (HEAVY-DUTY, CR104P) | Any | ² | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 | \$168.00 |
| | 3 | Nonstandard Markings (Specify) | Any | ² | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 | \$9.00 |

¹ Factory-installed modification kit for sizes 00-5.

² Not available in NEMA Size 00. Use Size 0 starter and modification.

³ This modification not available with items 1a, 1b or 1c because STOP push button would not work in AUTO position; instead order modification 1d.

⁴ Specify CR104 operator and contact block by product number

Reference Publications

Instructions

| NEMA Size | Publication Number |
|-----------|--------------------|
| 00, 0, 1 | GEH-5190 |
| 2 | GEH-4774 |
| 3 | GEH-4806 |
| 4 | GEH-4807 |
| 5 | GEH-4839 |
| 6 | GEH-5198 |



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Factory-Installed Modifications

Section 1

Contactor Modifications—Factory Installed

The general information at the top of page 1-197, regarding factory-installed modifications, also applies to those listed in the tables below.

| Type of Installation/ Contactors | Item No. | Modifications | Enclosure Type | NEMA Size | | | | | | | | |
|---|----------|---|----------------|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | |
| | | | | List Price Addition, GO-10G | | | | | | | | |
| Pilot Devices Mounted In Cover or Flange of CR305 | 4 | Indicating Light ¹ | | | | | | | | | | |
| | 4a | One (Red Only) ² | 1 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$90.00 | \$162.00 |
| | 4b | One (Specify Red or Green) (HEAVY-DUTY, CR104P) | Any | ³ | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 | \$162.00 |
| | 4c | Two (Includes 1 NC Auxiliary Contact) ⁴ (HEAVY-DUTY, CR104P) | Any | ³ | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 | \$390.00 |
| | 4d | One Push-To-Test and/or Transformer Type (Red or Green) | Any | ³ | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 | \$180.00 |
| | 4e | Two Push-To-Test (Includes 1 NC Auxiliary Contact) and/or Transformer Type ⁴ | Any | ³ | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 | \$426.00 |

- ¹ One indicating light: Wired in parallel with operating coil. Two indicating lights: Red is wired in parallel with operating coil, green is wired through an auxiliary contact.
² Factory-installed field modification kit for sizes 00-4 and size 5 without CPT.
³ Not available in NEMA Size 00. Use Size 0 contactor modification.
⁴ Maximum of three additional auxiliary contacts available on size 0-1.

| Type of Installation/ Contactors | Item No. | Modifications | Enclosure Type | NEMA Size | | | | | | | | |
|-------------------------------------|------------------|---|----------------|-----------------------------|--------------|----------|----------|----------|----------|----------|----------|----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | |
| | | | | List Price Addition, GO-10G | | | | | | | | |
| Control Circuit in CR305 | 8 | Separate Control Circuit (Specify Voltage and Frequency, Reference Items 13a and 13b for Standard Voltages) | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | 9 | Fused Control Circuit—Two Fuses | Any | ¹ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 10 | Control Transformer—Standard Capacity, 50 or 60 Hertz ² Two Primary and One Fuse Secondary, (Specify Voltage Rating) Standard Voltages at 60 Hertz 220-230-240 Primary, 110-115-120 Secondary 440-460-480 Primary, 110-115-120 Secondary 550-575-600 Primary, 110-115-120 Secondary 200-208 Primary, 115-120 Secondary | Any | ¹ | \$294.00 | \$294.00 | \$352.00 | \$468.00 | \$540.00 | \$594.00 | \$594.00 | \$594.00 |
| | 11 | Control Transformer—100 VA Additional Capacity, 60 Hertz | Any | ¹ | \$288.00 | \$288.00 | \$372.00 | \$468.00 | \$528.00 | \$588.00 | \$588.00 | |
| | 12 | | | | | | | | | | | |
| | 13 | Operating Coil | | | | | | | | | | |
| | 13a ⁴ | Standard Voltages at 60 Hertz: 24, 115-120, 200-208, 230-240, 460-480, 575-600 | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | 13b | Standard Voltages at 50 Hertz: 110, 220, 380-415, 440, 550 | Any | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C | N/C |
| | 13d | DC—Standard Voltages: 24, 115-125 | Any | ³ | ³ | \$102.00 | \$114.00 | \$198.00 | \$264.00 | \$720.00 | \$720.00 | |

- ¹ Not available in NEMA Size 00. Use size 0 contactor modification.
² The National Electrical Code, Article 450-3(B), requires primary fuses in most typical installations. Refer to the NEC, Article 450 prior to ordering control transformer without primary fuses to insure compliance. Control circuit fuse kits from page 1-206 may be used to provide primary fusing. Fuses must be sized to meet the requirements of the NEC according to the table below.
³ Not available in NEMA Sizes 00 or 0. Use Size 1 contactor modification.
⁴ 24V coil not available on size 5 and 6.

Recommended Fuse

| CPT VA | Primary Voltage | | |
|--------|-----------------|-----|------|
| | 208/240 | 480 | 600 |
| 50 | 1 | 0.5 | 0.5 |
| 100 | 2 | 1 | 0.75 |
| 150 | 3 | 1.5 | 1 |
| 250 | 5 | 2 | 2 |
| 300 | 6 | 3 | 2 |



Other Coil Voltages: See page 1-6
 Factory Installed Modifications: See pages 1-197 to 1-201
 Field Installed Modifications: See pages 1-202 to 1-207

NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Factory-Installed Modifications

Section 1

Contactor Modifications—Factory Installed

The general information at the top of page 1-197, regarding factory-installed modifications, also applies to those listed in the tables below.

| Type of Installation | Item No. | Modifications | Enclosure Type | NEMA Size | | | | | | | |
|-------------------------------------|-----------------|---|----------------|--------------|-----------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Auxiliary Relays Mounted In CR305 | 14 ¹ | Control Relay, Four-Pole (Convertible) Unwired (Specify Coil Voltage) | 1, 3R, 12 | ² | \$306.00 ³ | \$306.00 ³ | \$306.00 | \$306.00 | \$480.00 | \$540.00 | \$540.00 |
| | | | 4/4X | ² | \$468.00 ³ | \$468.00 ³ | \$468.00 | \$468.00 | \$636.00 | \$708.00 | \$708.00 |
| | 15 ¹ | Time-Delay Relay, Unwired, Pneumatic—1 to 60 Seconds, 1 NO-1 NC (Specify TDD or TDE and Coil Voltage) ³ | 1, 3R, 12 | ² | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 | \$504.00 |
| | | | 4/4X | ² | \$660.00 | \$660.00 | \$660.00 | \$660.00 | \$660.00 | \$660.00 | \$660.00 |
| | 16 ¹ | Timing Relay, Motor Driven, Unwired (Specify Voltage & Timing Range) ³ | Any | ² | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| | 17 ¹ | Phase Loss, Phase Reversal, Three-Phase, Undervoltage Relay (Starting & Running Protection, Specify Voltage) | Any | ² | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 | \$1056.00 |
| Auxiliary Contacts Mounted In CR305 | 19 | Magnetic Contactor (Specify Number of NO or NC) — Single Speed, Nonreversing: Four Maximum, Sizes 0, 1 Five Maximum, Size 2-6 Reversers and Two-Speed, Two Winding: Two Maximum, Per Contactor, Sizes 0-6 Two-Speed, One Winding: One on Left Contactor, Two on Right Contactor, Size 0, 1 Two Maximum Per Contactor, Sizes 2-6 | Any | ² | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 | \$66.00 |

¹ NEMA Type 1 enclosures require oiltight pilot devices when this modification is used with NEMA Contactor sizes 0, 1, and 2. Only oiltight pilot devices will fit the oversized enclosure required. The list price addition for the oversized enclosure is already included in the published list price.

² Not available in NEMA Size 00. Use Size 0 contactor modification.
³ Requires 100 VA extra capacity control transformer.

| Type of Installation/Contactors | Item No. | Modifications | Enclosure Type | NEMA Size | | | | | | | |
|---------------------------------|----------|--|----------------|--------------|----------|----------|----------|----------|----------|----------|----------|
| | | | | 00 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Metering Mounted In CR305 | 27 | Elapsed Time Meter | 1, 3R, 12 | ¹ | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 | \$348.00 |
| | | | 4/4X | ¹ | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 | \$588.00 |
| Enclosure CR305 | 30 | Space Heater ² 50 Watts—NEMA Size 0-4 Contactor/Starter 100 Watts—NEMA Size 5 Contactor | Any | ¹ | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$120.00 | \$420.00 |
| Misc. Mounted On CR305 | 31 | Operating Coil Surge Suppressor (120 V/60 Hz) | Any | | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 | \$54.00 |
| | 32 | Insulated Neutral Lug | Any | ¹ | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 | \$132.00 |
| | 33 | Ground Lug | Any | ¹ | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 | \$48.00 |
| | 34 | Terminal Block, (Product Number CR151B) 30A, Unwired (per point) (Specify Points) | Any | ¹ | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 |
| | 35 | Power Factor Correction Capacitor Terminals | Any | ¹ | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 | \$24.00 |

¹ Not available in NEMA Size 00. Use Size 0 contactor modification.
² If connected to control circuit transformer, 115-Volt heater requires an extra capacity transformer for Size 0-1 and Size 5.



NEMA Full Voltage Power Devices

NEMA Rated Full Voltage Contactors

CR305, CR385 Magnetic Contactors

Factory-Installed Modifications

Section 1

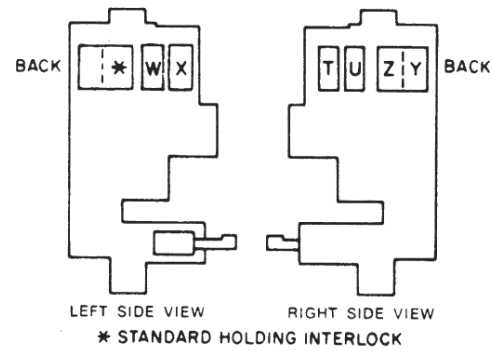
Factory-Installed Auxiliary Contacts

The final letter of the Product Number denotes extra auxiliary contacts (sometimes referred to as auxiliary interlocks). Order the desired extra auxiliary contacts, factory installed on the contactor, by replacing the final letter of the Product Number with a letter from the first column of the auxiliary contact table.

If a CR305 or 306 Product Number has no 3-letter suffix, first add an "AAA" suffix, and then substitute a letter from first column of the auxiliary contact table. Example: CR306C022 becomes CR306C022AAD for a Size 1 contactor with one extra NO and one extra NC auxiliary contact.

Extra Auxiliary Contact Table

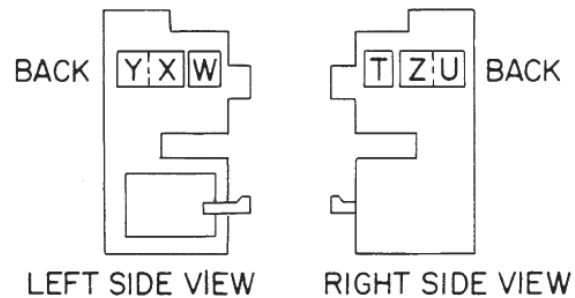
| Final Suffix Letter of Product No. on Contactor | Contact Location 5 Contacts Max. | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| | W | X | Y | Z | T | U |
| A or None | | | | | | |
| B | † | | | | | |
| C | ✖ | | | | | |
| D | | | ✖ | † | | |
| E | † | † | | | | |
| F | ✖ | ✖ | | | | |
| G | † | | ✖ | † | | |
| H | ✖ | | ✖ | † | | |
| J | † | † | | | † | |
| K | ✖ | ✖ | ✖ | | | |
| L | † | † | | † | | † |
| M | ✖ | ✖ | ✖ | | | ✖ |
| N | ✖ | † | ✖ | † | | |
| P | † | † | ✖ | † | | |
| R | ✖ | ✖ | ✖ | † | | |
| S | ✖ | † | ✖ | † | | † |
| T | ✖ | † | ✖ | † | | ✖ |
| U | † | † | ✖ | † | | † |
| W | ✖ | ✖ | ✖ | † | | ✖ |
| X | † | † | | † | † | † |
| Y | ✖ | ✖ | ✖ | | ✖ | ✖ |



NEMA Sizes 5 and 6,
Single-Speed, Nonreversing Contactors

Extra Auxiliary Contact Table

| Final Suffix Letter of Product No. on Contactor | Contact Location 4 Contacts Max. | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| | W | X | Y | T | Z | U |
| A or None | | | | | | |
| B | | † | | | | |
| C | | | ✖ | | | |
| D | | † | ✖ | | | |
| E | † | † | | | | |
| F | ✖ | | ✖ | | | |
| G | † | † | ✖ | | | |
| H | ✖ | † | ✖ | | | |
| J | † | † | | | † | |
| K | ✖ | | ✖ | | | ✖ |
| L | † | † | | † | † | |
| M | ✖ | | ✖ | ✖ | | ✖ |
| N | | † | ✖ | | † | ✖ |
| P | † | † | ✖ | | † | |
| R | ✖ | † | ✖ | | | ✖ |



NEMA Sizes 0 and 1,
Single-Speed, Nonreversing 2- and 3-Pole Contactors



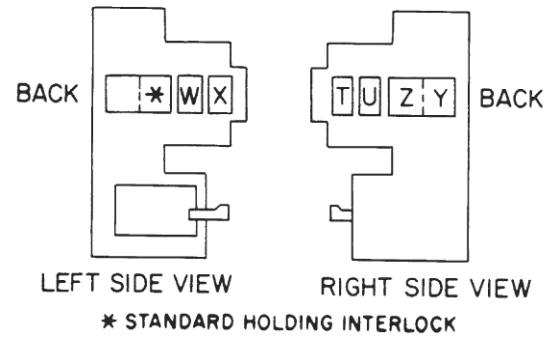
Product Number Selection Instructions: See page 1-193

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305, CR385 Magnetic Contactors Factory-Installed Modifications

Section 1

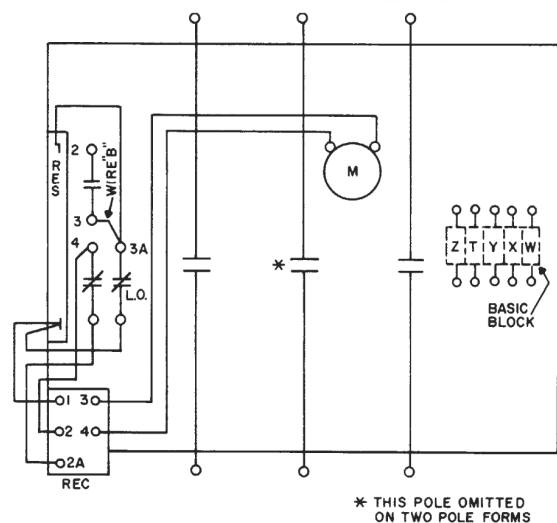
NEMA Sizes 7-9, Single-Speed, Nonreversing contactors

| Extra Auxiliary Contact Table | | | | | | |
|---|-------------------------------------|---|---|---|---|---|
| Final Suffix Letter of Product No. on Contactor | Contact Location 5 Contacts Max. | | | | | |
| | W | X | Y | Z | T | U |
| A or None | | | | | | |
| B | † | | | | | |
| C | ‡ | | | | | |
| D | | | ‡ | † | | |
| E | † | † | | | | |
| F | ‡ | ‡ | | | | |
| G | † | | ‡ | † | | |
| H | ‡ | | ‡ | † | | |
| J | † | † | | † | | |
| K | ‡ | ‡ | ‡ | | | |
| L | † | † | | † | | † |
| M | ‡ | ‡ | ‡ | | | ‡ |
| N | ‡ | † | ‡ | † | | |
| P | † | † | ‡ | † | | |
| R | ‡ | ‡ | ‡ | † | | |
| S | ‡ | † | ‡ | † | | † |
| T | ‡ | † | ‡ | † | | ‡ |
| U | † | † | ‡ | † | | † |
| W | ‡ | ‡ | ‡ | † | | ‡ |
| X | † | † | | † | † | † |
| Y | ‡ | ‡ | ‡ | | ‡ | ‡ |



NEMA Sizes 2, 3, and 4,
Single-Speed, Nonreversing Contactors

| Extra Auxiliary Contact Table | | | | | |
|---|-------------------------------------|---|---|---|---|
| Final Suffix Letter of Product No. on Contactor | Contact Location 5 Contacts Max. | | | | |
| | W | X | Y | T | Z |
| A or None | | | | | |
| B | † | | | | |
| C | ‡ | | | | |
| D | ‡ | † | | | |
| E | † | † | | | |
| F | ‡ | ‡ | | | |
| G | † | ‡ | † | | |
| H | ‡ | ‡ | † | | |
| J | † | † | † | | |
| K | ‡ | ‡ | ‡ | | |
| L | † | † | † | † | |
| M | ‡ | ‡ | ‡ | ‡ | |
| N | ‡ | † | ‡ | † | |
| P | † | † | ‡ | † | |
| R | ‡ | ‡ | ‡ | † | |
| S | ‡ | † | ‡ | † | † |
| T | ‡ | † | ‡ | † | ‡ |
| U | † | † | ‡ | † | † |
| W | ‡ | ‡ | ‡ | † | ‡ |
| X | † | † | † | † | † |
| Y | ‡ | ‡ | ‡ | ‡ | ‡ |



Typical connection diagram,
NEMA Sizes 7-9



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors

CR305, CR385 Auxiliary Contact Kits

For Field Installation on Magnetic Contactors

NEMA Sizes 0-7

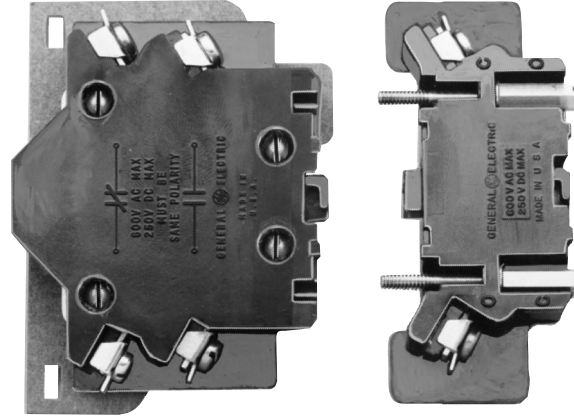
Section 1

Application

Auxiliary contacts can add to the versatility of magnetic contactors by providing additional control circuits to do a variety of jobs without adding to the width of the contactor.

Kits make it easy to add contacts to control accessory equipment such as indicating lights. Auxiliary contacts can be added to all across-the-line magnetic contactors. Each auxiliary contact is rated 10 Amperes ac, resistive load, NEMA "A600," and is suitable for either right or left side mounting. An insulating shield is also provided between each auxiliary contact unit and the contactor. Auxiliary contacts are furnished in the basic block design or as an adder block.

Each contact is marked NO or NC on the block and is not convertible. Logic reed contacts suitable for low energy level circuits are also available. These are designed for applications on low-voltage control circuits (24 Volts and below), such as inputs to computers and programmable starters.



Basic Block and Adder Block

Product Number Selection Instructions

1. Order by quantity and complete Product Number.

Example: Three CR305X300A at **\$36.00 each, GO-10G.**

Reference Publications

| Instructions | Publication Number |
|-----------------|--------------------|
| NEMA Size | |
| 0, 1 | GEH-4758 |
| 2 | GEH-4759 |
| 3, 4 | GEH-4760 |
| 5, 6 | GEH-4761 |
| 7-9 | GEH-5109 |
| 0, 1 Logic Reed | GEH-5178 |
| 2 Logic Reed | GEH-5185 |
| 3, 4 Logic Reed | GEH-5186 |
| 5, 6 Logic Reed | GEH-5187 |

Field-Installed Modifications for Magnetic Contactors

(CR305, CR385) – Contents

| | |
|---|-------|
| Application Information and Selection Instructions..... | 1-202 |
| Auxiliary Contact Kits (CR305X, CR385X) | 1-203 |
| Modification Kits | 1-205 |
| Outlines and Dimensions (CR305, CR385) | 1-208 |



Product Number Selection Instructions: See page 1-202

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305X, CR385X Auxiliary Contact Kits

Section 1

Field-Installed Modification Kits
For 300-Line Contactors

Auxiliary Contact Kits

| NEMA Size | Contact Configuration | Block Design | Product Number | List Price GO-10G |
|-----------|-----------------------|--------------|----------------|-------------------|
| 0,1 | 1NO | Basic | CR305X100A | \$36.00 |
| 0,1 | 1NC | Basic | CR305X100B | \$36.00 |
| 0,1 | 1NO-1NC | Basic | CR305X100C | \$48.00 |
| 2 | 1NO | Basic | CR305X200A | \$36.00 |
| 2 | 1NC | Basic | CR305X200B | \$36.00 |
| 2 | 1NO-1NC | Basic | CR305X200C | \$48.00 |
| 3,4 | 1NO | Basic | CR305X300A | \$36.00 |
| 3,4 | 1NC | Basic | CR305X300B | \$36.00 |
| 3,4 | 1NO-1NC | Basic | CR305X300C | \$48.00 |
| 5,6 | 1NO | Basic | CR305X500A | \$36.00 |
| 5,6 | 1NC | Basic | CR305X500B | \$36.00 |
| 5,6 | 1NO-1NC | Basic | CR305X500C | \$48.00 |
| 7 | 1NO | Basic | CR385X600A | \$198.00 |
| 7 | 1NC | Basic | CR385X600B | \$198.00 |
| 7 | 1NO-1NC | Basic | CR385X600C | \$396.00 |
| 8-9 | 1NO | Basic | CR385X800A | \$198.00 |
| 8-9 | 1NC | Basic | CR385X800B | \$198.00 |
| 8-9 | 1NO-1NC | Basic | CR385X800C | \$396.00 |

Auxiliary Contact Kits - Adder Blocks

| NEMA Size | Contact Configuration | Block Design | Product Number | List Price GO-10G |
|-----------|-----------------------|--------------|-------------------------|-------------------|
| 0-9 | 1NO | Adder | CR305X100D ¹ | \$36.00 |
| 0-9 | 1NC | Adder | CR305X100E ¹ | \$36.00 |

Logic Reed Switch Auxiliary Contacts²

| NEMA Size | Contact Configuration | Product Number | List Price GO-10G |
|-----------|-----------------------|----------------|-------------------|
| 00, 0, 1 | 1NO-0NC | CR305X100RA | \$45.00 |
| 00, 0, 1 | 0NO-1NC | CR305X100RB | \$45.00 |
| 00, 0, 1 | 1NO-1NC | CR305X100RC | \$72.00 |
| 2 | 1NO-0NC | CR305X200RA | \$45.00 |
| 2 | 0NO-1NC | CR305X200RB | \$45.00 |
| 2 | 1NO-1NC | CR305X200RC | \$72.00 |
| 3,4 | 1NO-0NC | CR305X300RA | \$45.00 |
| 3,4 | 0NO-1NC | CR305X300RB | \$45.00 |
| 3,4 | 1NO-1NC | CR305X300RC | \$72.00 |
| 5,6 | 1NO-0NC | CR305X500RA | \$45.00 |
| 5,6 | 0NO-1NC | CR305X500RB | \$45.00 |
| 5,6 | 1NO-1NC | CR305X500RC | \$72.00 |

Contact Ratings - Basic Blocks

High Fidelity Contact Basic Block

120 VAC maximum .15 A maximum, 8 VA maximum resistive.
30 VDC maximum .15 A maximum, 4.5 VA maximum resistive.

Standard Block

| AC Volts | Continuous Current Amperes | Inrush Current Amperes | DC Volts | Continuous Current Amperes | Inrush Current Amperes |
|----------|----------------------------|------------------------|----------|----------------------------|------------------------|
| 115 | 6.0 | 60 | 125 | 1.1 | — |
| 230 | 3.0 | 30 | 250 | 0.5 | — |
| 460 | 1.5 | 15 | — | — | — |
| 575 | 1.2 | 12 | — | — | — |

¹First adder block must be mounted to a basic block. A second adder block can be added to the first adder block on size 2 through size 9 starters.

Four extra auxiliary contacts (not blocks) is the maximum that can be added to either a NEMA size 0 or 1 starter while five is the maximum extra auxiliary contacts that can be added to NEMA Size 2 through 6 devices.

²CR305X logic reed switch auxiliary contacts may be ordered as a factory-installed modification. Order by description. For factory-installed modification, add \$75.00, GO-10G, per circuit to price of starter.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors

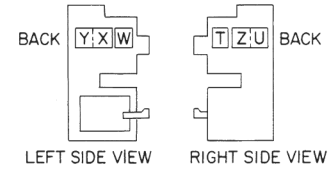
CR305X Auxiliary Contact Kits

For Field Installation on Magnetic Contactors (300-Line)

Selection and Installation Guides

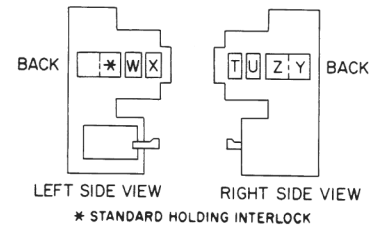
Section 1

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|--------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| W | X | Y | T | Z | U | X100A | X100B | X100C ¹ | X100D | X100E |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| + | + | | | | | 1 | | | | |
| | + | | | | | | 1 | | | |
| | | + | | | | | | 1 | | |
| + | + | | | | | 1 | | | 1 | |
| | | + | | | | | 1 | | | 1 |
| + | + | | | | | | | 1 | 1 | |
| + | + | | | | | | | 1 | | 1 |
| + | + | | | | | 2 | | | 1 | |
| + | + | | | | | 2 | 2 | | 2 | 1 |
| + | + | | | | | | 2 | | | 2 |
| + | + | | | | | 1 | | 2 | 1 | |
| + | + | | | | | | 1 | 1 | | 1 |
| + | + | | | | | | 1 | 1 | | 1 |



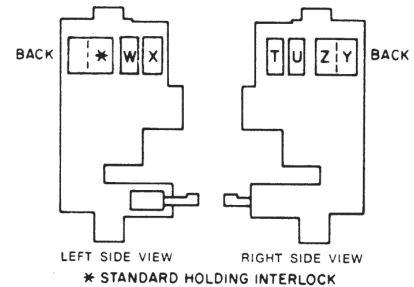
NEMA Sizes 0 and 1, Single-Speed, Nonreversing, 2- and 3-Pole (side views)

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|----------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| W | X | Y | Z | T | U | X200A | X200B | X200C ¹ | X100D | X100E |
| | | | | | | For Size 2 | | | For Sizes 3, 4 | |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| + | | | | | | | | | 1 | |
| + | | | | | | | | 1 | | 1 |
| + | + | | | | | | | | 2 | |
| + | | | | | | | | 1 | 1 | 2 |
| + | | | | | | | | 1 | | 1 |
| + | + | | | | | 1 | | | 2 | |
| + | + | | | | | | 1 | | | 2 |
| + | + | | | | | | | 1 | 1 | 3 |
| + | + | | | | | | 1 | | | 3 |
| + | + | | | | | | | 1 | 1 | 1 |
| + | + | | | | | | | 1 | 2 | |
| + | + | | | | | | | 1 | | 2 |
| + | + | | | | | | | 1 | 2 | 1 |
| + | + | | | | | | | 1 | 1 | 2 |
| + | + | | | | | | | 1 | 3 | |
| + | + | | | | | 1 | | | 4 | 3 |
| + | + | | | | | | | | | 4 |



NEMA Sizes 2, 3 and 4, Single-Speed, Nonreversing (side views)

| Extra Auxiliary Contact Table | | | | | | Kits for Field Modification | | | | |
|-------------------------------|---|---|---|---|---|-----------------------------|-------|--------------------|--------------|-------|
| Contact Location | | | | | | Order in Quantities Shown | | | | |
| 5 Contacts Maximum | | | | | | Product Number CR305 | | | | |
| W | X | Y | Z | T | U | X500A | X500B | X500C ¹ | X100D | X100E |
| | | | | | | Basic Blocks | | | Adder Blocks | |
| + | | | | | | | | | 1 | |
| + | | | | | | | | 1 | | 1 |
| + | + | | | | | | | | 2 | |
| + | | | | | | | | 1 | 1 | 2 |
| + | | | | | | | | 1 | | 1 |
| + | + | | | | | 1 | | | 2 | |
| + | + | | | | | | 1 | | | 2 |
| + | + | | | | | | | 1 | 1 | 3 |
| + | + | | | | | | | 1 | 1 | 3 |
| + | + | | | | | | | 1 | 1 | 1 |
| + | + | | | | | | | 1 | 2 | |
| + | + | | | | | | | 1 | | 2 |
| + | + | | | | | | | 1 | 2 | 1 |
| + | + | | | | | | | 1 | 1 | 2 |
| + | + | | | | | | | 1 | 3 | |
| + | + | | | | | | | 1 | | 3 |
| + | + | | | | | 1 | | | 4 | |
| + | + | | | | | | | | | 4 |



NEMA Sizes 5 and 6 Single-Speed, Nonreversing (side views)

¹Both NO and NC contacts must be wired for same polarity



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors Field-Installed Modification Kits

For 300-Line Contactors
NEMA Sizes 00-6

Section 1

Pilot Device Modification Kits

The push button and selector switch kits listed here are supplied complete with the necessary components, hardware and written instructions for easy field installation on Type 1 enclosed contactors—CR305.

| Kit Type | NEMA Size | Product Number | List Price GO-10G |
|---|-----------|----------------|-------------------|
| Momentary Contact Start-Stop Push Button Kits | 00, 0, 1 | CR305X120N | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 2 | CR305X220N | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 3, 4 | CR305X320B | \$48.00 |
| Momentary Contact Start-Stop Push Button Kits | 5 | CR305X520B | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 00, 0, 1 | CR305X130N | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 2 | CR305X230N | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 3, 4 | CR305X330B | \$48.00 |
| Hand-Off-Auto Selector Switch Kits | 5 | CR305X530B | \$48.00 |
| Off-On Selector Switch Kits | 00, 0, 1 | CR305X130P | \$48.00 |
| Off-On Selector Switch Kits | 2 | CR305X230D | \$48.00 |
| Off-On Selector Switch Kits | 3, 4 | CR305X330D | \$48.00 |
| Off-On Selector Switch Kits | 5 | CR305X530D | \$48.00 |



Selector Switch Kits

Fifth-Pole Kits

To be installed on NEMA Size 0, 1, and 2 magnetic four-pole contactors. Permits the addition of a fifth pole with the same rating as the main poles.

| NEMA Size | Mounting Position | Product Number | List Price GO-10G |
|------------------------|-------------------|----------------|-------------------|
| 0, 1 | Right | CR305X111B | \$66.00 |
| 2 (add to 4-pole form) | Left | CR305X211B | \$120.00 |



START-STOP Push Button Kits

Adapter Mounting Plate

For mounting a 300-line magnetic starter in place of a competitive unit.

Adapter plate good for mounting in place of the following:

A-B 709. Size 1: W B200. Sizes 00-2: Furnas Sizes 00-1: GTE TM.

Sizes 00-2: Sq. D 8536, Sizes 00-2.

Not needed for C-H—same as GE.

Note: GTE now known as Joslyn Clark.

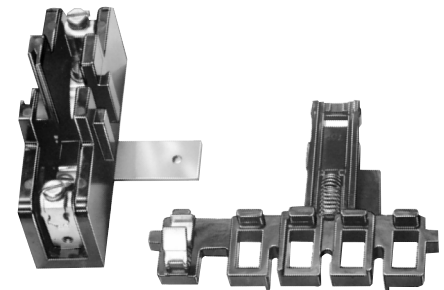
| NEMA Size | Product Number | List Price GO-10G |
|-----------|----------------|-------------------|
| 00-1 | CR306X191A | \$9.00 |

Indicating Light Kits (Red)

To be installed on contactor and extend through knockout in cover of CR305 devices in Type 1 enclosures. Each kit has three resistors allowing light to be used with all voltages of 110 through 600. Uses NE-45 bulb. Can be used with push button or selector switch kit.

| NEMA Size | Product Number | List Price GO-10G |
|------------|----------------|---------------------|
| 00, 0, 1 | CR305X150N | \$90.00 |
| 2 | CR305X250N | \$90.00 |
| 3, 4 | CR305X350B | \$90.00 |
| 5 | CR305X550B | \$90.00 |
| NE-45 Bulb | CR2940U200BL | \$9.24 ¹ |

¹NE-45 bulb is GO-10P8.



Fifth-Pole Kit



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors Field-Installed Modification Kits

For 300-Line Contactors
NEMA Sizes 00-6

Section 1

Surge Suppression Kit

To be connected in parallel with operating coil where the demands of solid-state circuitry necessitate prevention of undesirable reactions in logic circuits. For use on 120 Volt ac only.

| NEMA Size | Product Number | List Price GO-10G |
|-----------|----------------|-------------------|
| 0-6 | CR305X146C | \$33.90 |



Surge Suppression Kit

Control Circuit Fuse Kits

Control circuit fuse kits are designed for installation on NEMA Size 00-5 across-the-line contactors. They install on the side of the contactor and provide fuse protection for control circuit wiring.

These kits incorporate one or two 10 Ampere 600 Volt fuse holders for use with KTK or KTK-R fuses (or equivalent). The fuses are easily accessible with the enclosure covers open, and each kit contains instructions and hardware for easy installation. Instructions: GEH-4822.

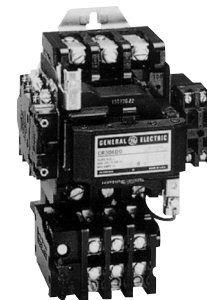
| NEMA Size | No. of Fuses | Fuse Type | Product Number | List Price GO-10G |
|-----------|--------------|-----------|----------------|-------------------|
| 00-1 | 1 | KTK | CR305X141A | \$24.00 |
| 00-1 | 2 | KTK | CR305X141B | \$36.00 |
| 2 | 1 | KTK | CR305X241A | \$24.00 |
| 2 | 2 | KTK | CR305X241B | \$36.00 |
| 3, 4 | 1 | KTK | CR305X341A | \$24.00 |
| 3, 4 | 2 | KTK | CR305X341B | \$36.00 |
| 5, 6 | 1 | KTK | CR305X541A | \$24.00 |
| 5, 6 | 2 | KTK | CR305X541B | \$36.00 |
| 00-1 | 1 | KTK-R | CR305X141C | \$24.00 |
| 00-1 | 2 | KTK-R | CR305X141D | \$36.00 |
| 2 | 1 | KTK-R | CR305X241C | \$24.00 |
| 2 | 2 | KTK-R | CR305X241D | \$36.00 |
| 3, 4 | 1 | KTK-R | CR305X341C | \$24.00 |
| 3, 4 | 2 | KTK-R | CR305X341D | \$36.00 |
| 5, 6 | 1 | KTK-R | CR305X541C | \$24.00 |
| 5, 6 | 2 | KTK-R | CR305X541D | \$36.00 |

Control Amplifier

The GE CR305X control amplifier is suitable for applications with low level 24 Volt dc outputs. It allows the low level signals from a programmable control, microprocessor, or photoelectric cell to operate GE's 300-Line contactors while their control coils operate at the line voltage. The control amplifier is UL listed and CSA Certified, and forms are available for NEMA Sizes 00 through 5.

| Operation Type | NEMA Size | Product Number | List Price GO-10G |
|----------------|---------------------|-------------------------|-------------------|
| Nonreversing | 00, 0, & 1 | CR305X112A | \$54.00 |
| Nonreversing | 2 | CR305X212A | \$54.00 |
| Nonreversing | 3 & 4 | CR305X312A | \$54.00 |
| Nonreversing | 00, 0, 1, 2, 3, & 4 | CR305X112P ¹ | \$54.00 |

¹A quantity of two panel mount CR305X112P is required for use with reversing contactors and starters.



Typical Size 2 Starter with CR305X Control Amplifier Mounted on Right

Reference Publications

Instructions, Indicating Light Kits for Type 1 Enclosure

| NEMA Size | Publication Number |
|-----------|--------------------|
| 00, 0, 1 | GEH-4767 |
| 2 | GEH-4768 |
| 3, 4 | GEH-4769 |
| 5 | GEH-4770 |

Instructions, Push Button and Selector Switch Kits for Type 1 Enclosure

| NEMA Size | Publication Number |
|-----------|--------------------|
| 00, 0, 1 | GEH-4763 |
| 2 | GEH-4764 |
| 3, 4 | GEH-4765 |
| 5 | GEH-4766 |



Product Number Selection Instructions: See page 1-202

NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors Field-Installed Modification Kits

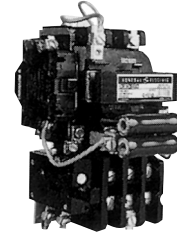
For 300-Line Contactors
NEMA Sizes 00-6

Section 1

Space Heater Kits

CR305X701 and CR305X702 space heater kits (50 Watts, except size 5 and 6 at 100 Watts) come complete with one NC auxiliary contact, necessary hardware and ready for installation on any NEMA Size 0 through 6 enclosed contactor CR305, or equivalent 200-Line devices.

| NEMA Size | Operating Voltage | Product Number | List Price GO-10G |
|-----------|-------------------|-------------------------|-------------------|
| 0-1 | 115 | CR305X701D ¹ | \$120.00 |
| 0-1 | 230 | CR305X701A | \$120.00 |
| 0-1 | 460 | CR305X701B | \$120.00 |
| 0-1 | 600 | CR305X701C | \$120.00 |
| 2, 3, 4 | 115 | CR305X702D | \$120.00 |
| 2, 3, 4 | 230 | CR305X702A | \$120.00 |
| 2, 3, 4 | 460 | CR305X702B | \$120.00 |
| 2, 3, 4 | 600 | CR305X702C | \$120.00 |
| 5, 6 | 115 | CR305X705D ¹ | \$120.00 |
| 5, 6 | 230 | CR305X705A | \$120.00 |
| 5, 6 | 460 | CR305X705B | \$120.00 |
| 5, 6 | 600 | CR305X705C | \$120.00 |



Space Heater Installed on Typical NEMA Size 1 Starter

Mechanical Interlock Kits

To be installed on open CR305 or CR385 contactors unless otherwise noted. Kits include all parts to mechanically interlock 2 devices.

| NEMA Size | Mounting Position | Baseplate | Product Number | List Price GO-10G |
|-----------|-------------------|-----------|-------------------------|-------------------|
| 0-1 | Horizontal | No | CR309X100B | \$42.00 |
| 2 | Horizontal | No | CR309X200D | \$96.00 |
| 3-4 | Horizontal | No | CR309X300B | \$180.00 |
| 5 | Horizontal | Yes | CR309X501K | \$240.00 |
| 0-1 | Vertical | Yes | CR309X102B ² | \$96.00 |
| 2 | Vertical | Yes | CR309X202B ² | \$180.00 |
| 3-4 | Vertical | Yes | CR309X302B ² | \$240.00 |
| 5 | Vertical | No | CR309X502K | \$240.00 |
| 6 | Vertical | No | CR309X602B ⁵ | \$450.00 |
| 7 | Vertical | No | CR389X100C | \$450.00 |
| 8-9 | Vertical | No | CR389X100H | \$450.00 |

¹If connected to control circuit transformer, 115-Volt heater requires an extra-capacity transformer.

Contact nearest GE Representative for additional information.

²For contactors top and bottom or contractor on top.

³For contactors top and bottom only.

Reference Publications

Instructions:

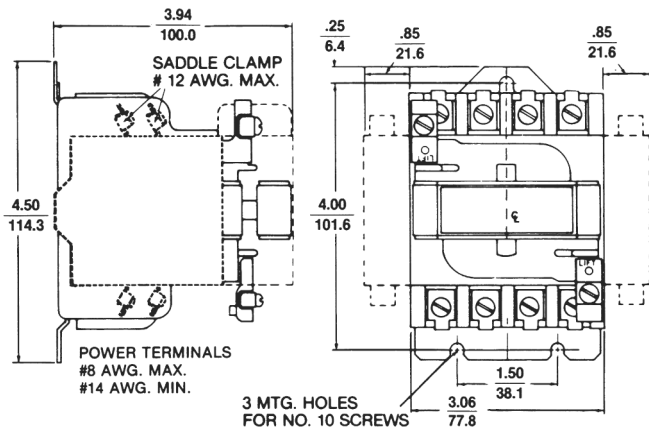
| | |
|--------------------------|----------|
| Space heater kits | GEH-4772 |
| Control transformer kits | GEH-4842 |



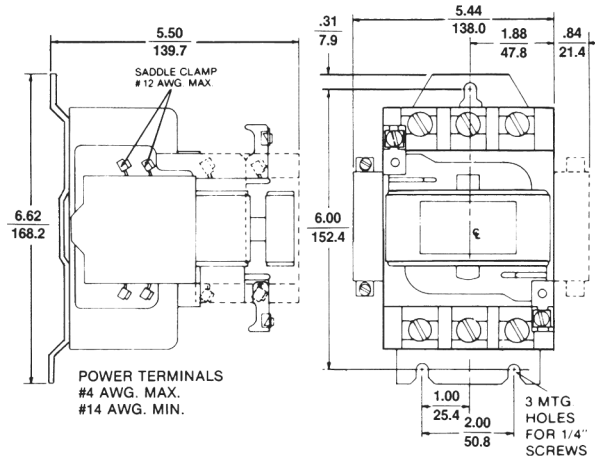
NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305

Outlines, Dimensions (in/mm), and Weights (For Estimating Only)

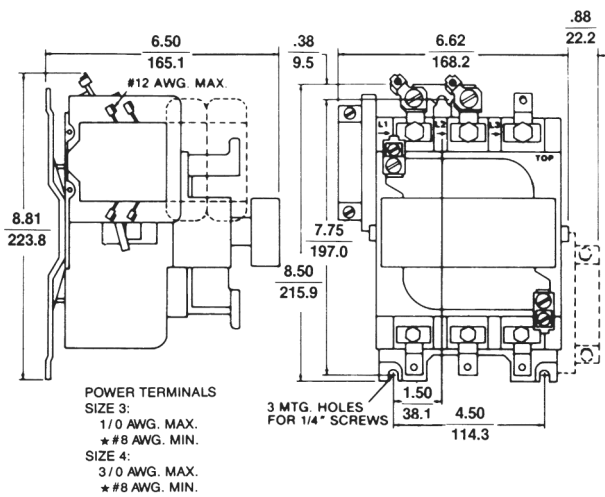
Section 1



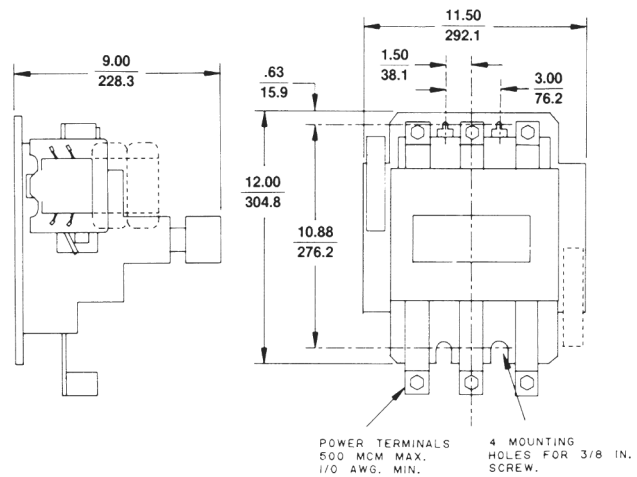
Open Type, NEMA Sizes 00-1, (auxiliary interlocks not provided on size 00); 2 3/4 lbs.



Open Type, NEMA Size 2, 7 lbs.



Open Type, NEMA Sizes 3 and 4; 17 1/2 lbs.



Open Type, NEMA Size 5, 50 lbs.

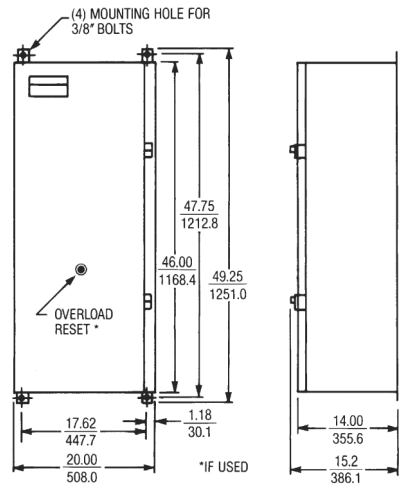


Product Number Selection Instructions: See page 1-202

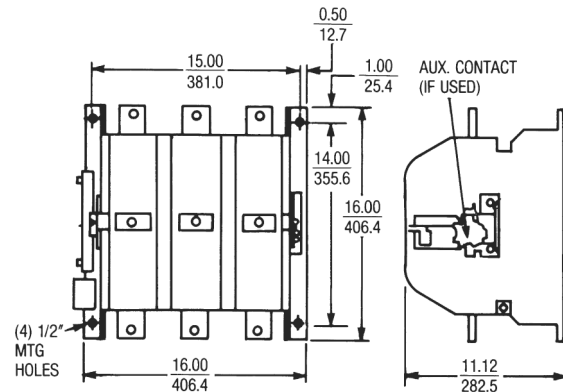
NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305, CR385

Outlines, Dimensions (in mm), and Weights (For Estimating Only)

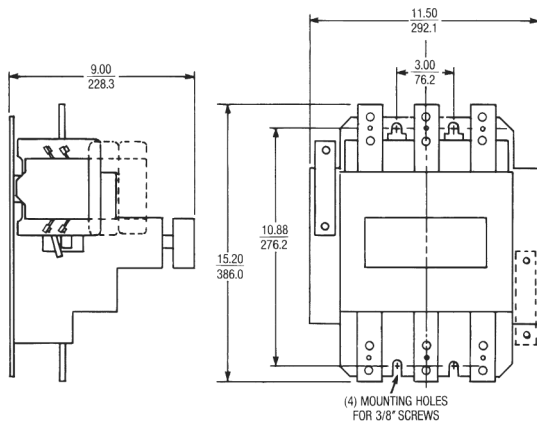
Section 1



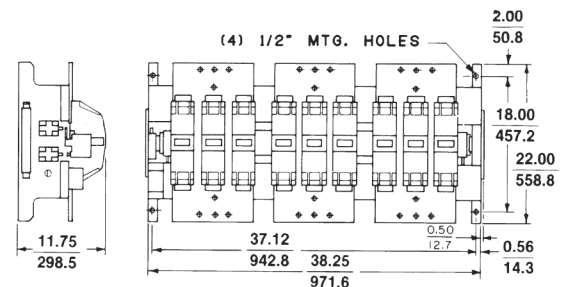
CR305, NEMA Size 6, Type 1 and Type 12



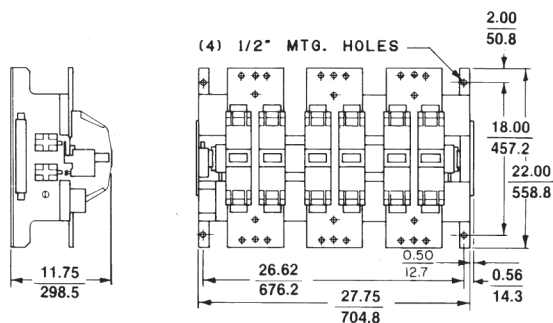
CR385, Open Type, NEMA Size 7, 82 lbs.



CR305, Open Type, NEMA Size 6; 50 lbs.



CR385, Open Type, NEMA Size 9, 310 lbs.



CR385, Open Type, NEMA Size 8, 205 lbs.



NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors

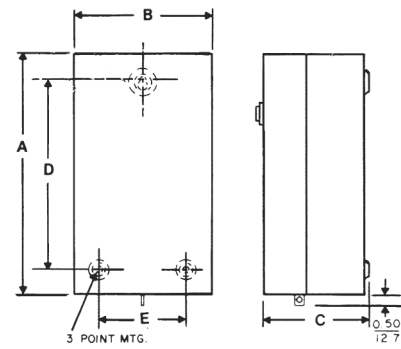
CR305

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

Section 1

CR305 NEMA Type 1 NEMA Sizes 00-4

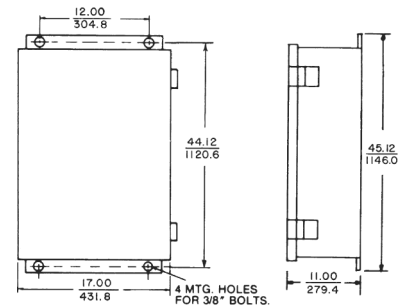
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Mounting Screw Size | Approx. Shipping Wt. (Lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|-------------|---------------------|----------------------------|
| 00 | 10.00 (254.0) | 6.00 (152.4) | 4.63 (117.6) | 8.00 (203.2) | 4.00 (101.6) | 1.00 (25.4) | #10 | 5.5 |
| 0 | 10.00 (254.0) | 6.00 (152.4) | 4.63 (117.6) | 8.00 (203.2) | 4.00 (101.6) | 1.00 (25.4) | #10 | 5.5 |
| 1 | 10.00 (254.0) | 6.00 (152.4) | 4.63 (117.6) | 8.00 (203.2) | 4.00 (101.6) | 1.00 (25.4) | #10 | 5.5 |
| 2 | 13.25 (336.6) | 7.38 (187.4) | 6.13 (155.7) | 11.00 (279.4) | 5.00 (127.0) | 1.13 (28.7) | 1/4" | 13 |
| 3 | 20.25 (514.4) | 8.75 (222.2) | 7.31 (185.7) | 17.00 (431.8) | 5.75 (146.0) | 1.88 (47.8) | 1/4" | 35 |
| 4 | 25.00 (635.0) | 8.75 (222.2) | 7.31 (185.7) | 22.00 (558.8) | 5.75 (146.0) | 1.50 (38.1) | 1/4" | 38 |



Type 1, NEMA Sizes 00-4

CR305 NEMA Type 1 NEMA Size 5

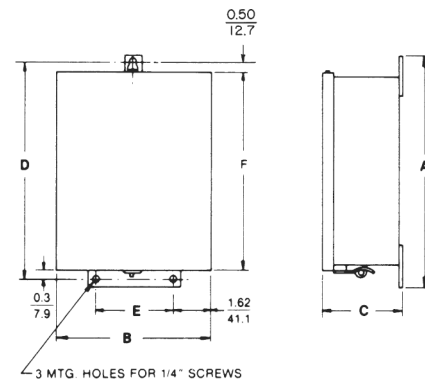
See Diagram



Type 1, NEMA Size 5, 134 lbs.

CR305 NEMA Type 12 NEMA Sizes 0-2

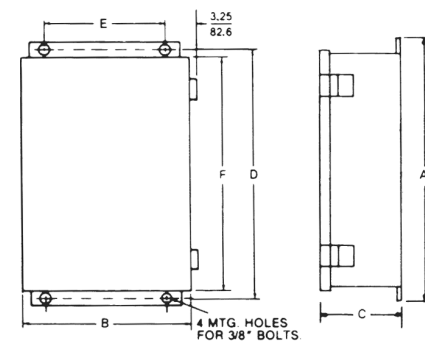
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Approx. Shipping Wt. (Lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|---------------|----------------------------|
| 0 | 11.63 (295.4) | 6.25 (158.8) | 4.75 (120.6) | 11.00 (279.4) | 3.00 (76.2) | 10.25 (260.4) | 6 |
| 1 | 11.63 (295.4) | 6.25 (158.8) | 4.75 (120.6) | 11.00 (279.4) | 3.00 (76.2) | 10.25 (260.4) | 6 |
| 2 | 14.63 (371.6) | 7.63 (193.8) | 6.25 (158.8) | 14.00 (355.6) | 4.38 (111.2) | 13.25 (336.6) | 14 |



Type 12, NEMA Sizes 0-2

CR305 NEMA Type 12 NEMA Sizes 3-5

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Approx. Shipping Wt. (Lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|----------------|----------------------------|
| 3 | 24.00 (609.6) | 10.00 (254.0) | 7.25 (184.2) | 23.00 (584.2) | 5.00 (127.0) | 21.25 (539.8) | 40 |
| 4 | 30.00 (762.0) | 10.00 (254.0) | 7.25 (184.2) | 29.00 (736.6) | 5.00 (127.0) | 24.25 (616.0) | 43 |
| 5 | 45.50 (1155.7) | 17.00 (431.8) | 10.25 (260.4) | 44.50 (1130.3) | 12.00 (304.8) | 42.75 (1085.9) | 154 |



Type 12, NEMA Sizes 3-5



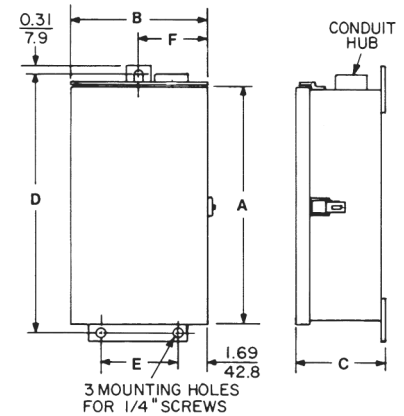
NEMA Full Voltage Power Devices NEMA Rated Full Voltage Contactors CR305

Section 1

Outlines, Dimensions in. (mm), and Weights (For Estimating Only)

CR305 NEMA Type 3R NEMA Sizes 0-2

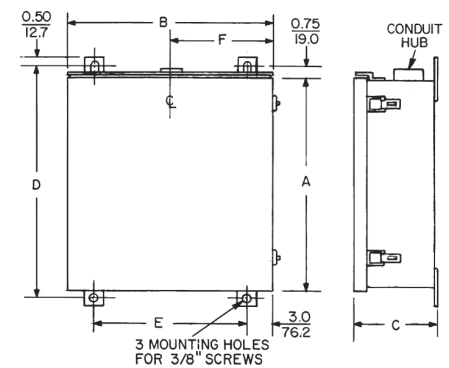
| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Approx. Shipping Wt. (Lbs) |
|-----------|---------------|--------------|--------------|---------------|--------------|-------------|----------------------------|
| 0 | 14.50 (368.3) | 6.38 (161.9) | 4.75 (120.6) | 15.00 (381.0) | 3.00 (76.2) | 3.19 (80.9) | 6 |
| 1 | 14.50 (368.3) | 6.38 (161.9) | 4.75 (120.6) | 15.00 (381.0) | 3.00 (76.2) | 3.19 (80.9) | 6 |
| 2 | 16.50 (419.1) | 7.75 (196.8) | 6.50 (165.1) | 17.00 (431.8) | 4.38 (111.2) | 3.88 (98.4) | 14 |



Type 3R, NEMA Sizes 0-2

CR305 NEMA Type 3R NEMA Sizes 3-5

| NEMA Size | Dimension A | Dimension B | Dimension C | Dimension D | Dimension E | Dimension F | Approx. Shipping Wt. (Lbs) |
|-----------|----------------|---------------|---------------|----------------|---------------|--------------|----------------------------|
| 3 | 22.00 (558.8) | 17.19 (436.6) | 7.25 (184.2) | 23.50 (596.9) | 11.00 (279.4) | 8.6 (217.9) | 43 |
| 4 | 26.00 (660.4) | 17.19 (436.6) | 7.25 (184.2) | 27.50 (698.5) | 11.00 (279.4) | 8.6 (217.9) | 43 |
| 5 | 42.00 (1066.8) | 22.00 (558.8) | 10.25 (260.4) | 43.50 (1104.9) | 16.00 (406.0) | 11.0 (279.4) | 135 |
| 6 | 46.00 (1168.4) | 20.00 (508.0) | 14.00 (355.6) | 47.75 (1212.8) | 17.62 (447.7) | — | 260 |



Type 3R, NEMA Sizes 3-5

CR305 NEMA Type 4/4X NEMA Sizes 0-6

| NEMA Size | Height | Depth | Width | Approx. Shipping Wt. (Lbs) |
|-----------|-----------------------------------|---------------|---------------|----------------------------|
| 0 | 15.62 (396.7) | 4.75 (120.6) | 6.38 (162.0) | 6 |
| 1 | 15.62 (396.7) | 4.75 (120.6) | 6.38 (162.0) | 6 |
| 2 | 17.62 (447.5) | 6.50 (165.1) | 7.75 (196.8) | 14 |
| 3 | 25.40 (622.3) | 7.25 (184.2) | 17.00 (431.8) | 40 |
| 4 | 28.50 (723.9) | 7.25 (184.2) | 17.00 (431.8) | 43 |
| 5 | 44.50 (1130.3) | 10.25 (260.4) | 22.00 (558.8) | 154 |
| 6 | Contact nearest GE Representative | | | |



