

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.

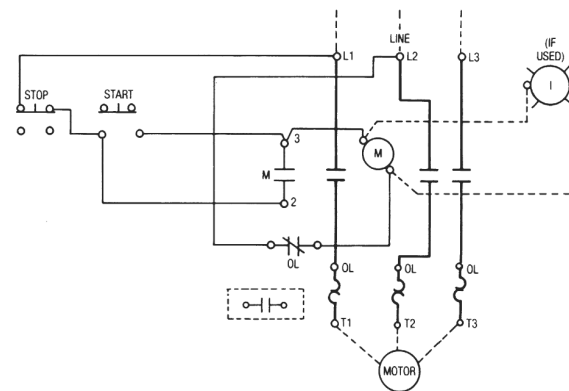
Their compact size and ease of wiring make them especially suitable for motor control centers, custom-type control panels, and switchgear equipment. Refer to page 1-7 for features of basic starter.

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
- 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
- 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
- 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
- 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.



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

Basic Features (300-Line) and Technical Features (CR306, CR386).....	1-7
Non-combination, NEMA Sizes 00-9 with Thermal Overload Relays — Application Information and Selection Instructions (CR306, CR386).....	1-8
Non-combination, NEMA Sizes 00-9 with Thermal Overload Relays (CR306, CR386).....	1-9
Outlines and Dimensions (CR306, CR386).....	1-13



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 CR306	Product Number CR306	Product Number CR306	List Price GO-10G	Product Number CR306	Product Number CR306	Product Number CR306			
00	9	Separate Control—115-120 V		A002	A102					Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
00	9	200-208	1 1/2	A023	A123			Use NEMA Size 0		Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
00	9	230-240	1 1/2	A003	A103			Use NEMA Size 0		Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
00	9	460-480	2	A004	A104			Use NEMA Size 0		Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
00	9	575-600	2	A005	A105			Use NEMA Size 0		Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
0	18	Separate Control—115-120 V		B002	B102			B602		B202		B402	
0	18	200-208	3	B023	B123			B623		B223		B423	
0	18	230-240	3	B003	B103			B603		B203		B403	
0	18	460-480	5	B004	B104			B604		B204		B404	
0	18	575-600	5	B005	B105			B605		B205		B405	
1	27	Separate Control—115-120 V		C002	C102			C602		C202		C402	
1	27	200-208	7 1/2	C023	C123			C623		C223		C423	
1	27	230-240	7 1/2	C003	C103 ²			C603		C203		C403	
1	27	460-480	10	C004	C104			C604		C204		C404	
1	27	575-600	10	C005	C105			C605		C205		C405	
2	45	Separate Control—115-120 V		D002	D102			D602		D202		D402	
2	45	200-208	10	D023	D123			D623		D223		D423	
2	45	230-240	15	D003	D103			D603		D203		D403	
2	45	460-480	25	D004	D104			D604		D204		D404	
2	45	575-600	25	D005	D105			D605		D205		D405	
3	90	Separate Control—115-120 V		E002	E102			E602		E202		E402	
3	90	200-208	25	E023	E123			E623		E223		E423	
3	90	230-240	30	E003	E103			E603		E203		E403	
3	90	460-480	50	E004	E104			E604		E204		E404	
3	90	575-600	50	E005	E105			E605		E205		E405	
4	135	Separate Control—115-120 V		F002	F102			F602		F202		F402	
4	135	200-208	40	F023	F123			F623		F223		F423	
4	135	230-240	50	F003	F103			F603		F203		F403	
4	135	460-480	100	F004	F104			F604		F204		F404	
4	135	575-600	100	F005	F105			F605		F205		F405	
5	270	Separate Control—115-120 V		G002	G102			G602		G202		G402	
5	270	200-208	75	G023	G123			G623		G223		G423	
5	270	230-240	100	G003	G103			G603		G203		G403	
5	270	460-480	200	G004	G104			G604		G204		G404	
5	270	575-600	200	G005	G105			G605		G205		G405	
6	540	Separate Control—115-120 V		HH002	HH102			HH602		HH202		HH402	
6	540	200-208	150	HH023	HH123			HH623		HH223		HH423	
6	540	230-240	200	HH003	HH103			HH603		HH203		HH403	
6	540	460-480	400	HH004	HH104			HH604		HH204		HH404	
6	540	575-600	400	HH005	HH105			HH605		HH205		HH405	

CR386 Three-Phase Magnetic Starters

NEMA Size	Continuous Ampere Rating ¹	Voltage	Horsepower	Control Circuit Voltage	Open Type	
					Product Number CR386	Product Number CR386
7	810	Separate Control—115-120 V			J002AA1A	
7	810	220-240	300	230	J003AA1A	
7	810	440-480	600	460	J004AA1A	
7	810	550-600	600	575	J005AA1A	
8	1215	Separate Control—115-120 V			K002AA1A	
8	1215	220-240	450	230	K003AA1A	
8	1215	440-480	900	460	K004AA1A	
8	1215	550-600	900	575	K005AA1A	
9	2250	Separate Control—115-120 V			L002AA1A	
9	2250	220-240	800	230	L003AA1A	
9	2250	440-480	1600	460	L004AA1A	
9	2250	550-600	1600	575	L005AA1A	

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.

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 CR306	Product Number CR306	Product Number CR306	Product Number CR306	Product Number CR306
00	9	115-120	1/3	H002	H102			
00	9	230-240	1	H003	H103			
0	18	115-120	1	J002	J102	J602	J202	J402
0	18	230-240	2	J003	J103	J603	J203	J403
1	27	115-120	2	K002	K102	K602	K202	K402
1	27	230-240	3	K003	K103	K603	K203	K403
1P	36	115-120	3	K002BMA	K102BKA	K602BKA	K202BKA	K402BKA
1P	36	230-240	5	K003BMA	K103BKA	K603BKA	K203BKA	K403BKA
2	45	115-120	3	L002	L102	L602	L202	L402
2	45	230-240	7 1/2	L003	L103	L603	L203	L403
3	90	115-120	7 1/2	M002	M102	M602	M202	M402
3	90	230-240	15	M003	M103	M603	M203	M403
3	90	460-480	25	M004	M104	M604	M204	M404
3	90	575-600	25	M005	M105	M605	M205	M405

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

