

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

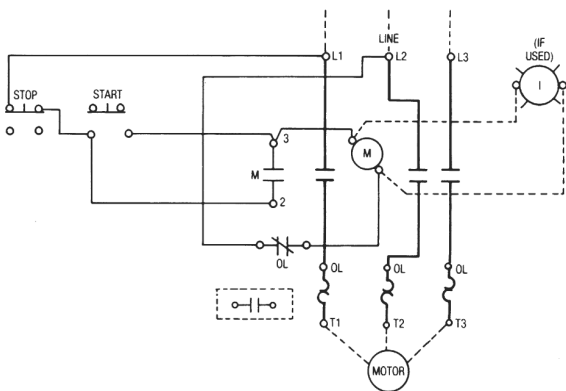
GE's magnetic motor starters listed here may be used for starting full-voltage, nonreversing, single-speed ac motors up to 1600 horsepower, 600 Volts maximum, providing protection to the motor against running or stalled overloads. Their compact size and ease of wiring make them especially suitable for motor control centers, custom-type control panels, and switchgear equipment. Refer to page 1-7 for features of basic starter.

Product Number Selection Instructions

1. 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
2. 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
3. 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.
4. 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
5. 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
6. Two-phase, four-wire forms are available. Contact nearest GE Representative for pricing and ordering information.
7. **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.
8. **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

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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

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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
00	9	Separate Control—115-120 V		A002	A102	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
00	9	230-240	1 1/2	A003	A103	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
00	9	575-600	2	A005	A105	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
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

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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

				Open Type	NEMA Type 1	NEMA Type 3R	NEMA Type 12	NEMA Type 4/4X
NEMA Size	Continuous Ampere Rating ¹	Voltage	Horsepower	Product Number CR306	Product Number CR306	Product Number CR306	Product Number CR306	Product Number CR306
00	9	115-120	1/3	H002	H102	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
00	9	230-240	1	H003	H103	Use NEMA Size 0	Use NEMA Size 0	Use NEMA Size 0
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.

