

# NEMA Full Voltage Power Devices

## NEMA Rated Full Voltage Starters - Magnetic

### 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

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.

#### CR309, Three-Phase Magnetic Reversing Starters

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

<sup>1</sup>Motor full load current should not exceed continuous ampere rating of the starter.

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

<sup>3</sup>External 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

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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.

#### CR309, Single-Phase Magnetic Reversing Starters

NEMA Size	Continuous Ampere Rating <sup>1</sup>	Voltage	Horsepower	Open Type	NEMA Type 1	NEMA Type 12 <sup>2</sup>	NEMA Type 4/4X <sup>2</sup>
				Product Number CR309	Product Number CR309	Product Number CR309	Product Number CR309
00	9	115-120	1/3	A002AFA	A102AFA	-	-
00	9	230-240	1	A003AFA	A103AFA	-	-
0	18	115-120	1	B002BBA	B102DAA	B202DAA	B402CCA
0	18	230-240	2	B003BBA	B103DAA	B203DAA	B403CCA
1	27	115-120	2	C002FSA	C102DAA	C202ALA	C402BXA
1	27	230-240	3	C003FSA	C103DAA	C203ALA	C403BXA

<sup>1</sup>Motor full load current should not exceed continuous ampere rating of the starter.

<sup>2</sup>External reset not included on standard listed forms.

