

Product Selection – Modular Kits

Base Starter – NEMA Sizes 0...4⁽¹⁾

Heater Elements – Starters with eutectic alloy overload relay require three heater elements. See Heater Elements Specifications Technical Data, publication 592-TD010, for heater element selection.

NEMA Size	Continuous Ampere Rating [A]	Maximum Horsepower Rating (Full Load Current Must Not Exceed Continuous Ampere Rating)						
		1-Phase Motor Voltage ⁽²⁾		3-Phase Motor Voltage				600V AC Maximum, 60 Hz
		115V	230V	200V	230V	50 Hz	460...575V	3 Power Poles
						380...415V		Cat. No. ⁽³⁾
00	9	0.33	1	1.5	1.5	2	2	(4)
0	18	1	2	3	3	5	5	509-A0 
1	27	2	3	7.5	7.5	10	10	509-B0 
2	45	3	7.5	10	15	25	25	509-C0 
3	90	7.5	15	25	30	50	50	509-D0 
4	135	—	—	40	50	75	100	509-E0 
5	270	—	—	75	100	150	200	(4)

(1) The starters include a 120V AC coil and one N.O. auxiliary contact, as standard.

(2) NEMA sizes 0...3 can be wired for 3-phase or 1-phase applications, but 1-phase coil codes are no longer valid.

(3) The cat. nos. as listed are incomplete. Select a value from the Voltage Code table and a value from the Overload Relay Code table, to complete each cat. no.
Example: To select a 240V AC coil voltage with a E100 overload relay (1...5 A), Cat. No. 509-A0 becomes Cat. No. 509-ADA-A2E.

(4) See NEMA Size 00 and 5 for NEMA size 00 and 5 starter product selection.

⊗ Voltage Code

Note: The base contactor includes a 120V AC coil as standard. For all other voltages, an alternate coil will be included in the modular kit for field installation.

[V]	24	110	120	125	208	220	240	250	277	380	415	440	480	550	600
AC, 50 Hz	J	D	—	—	—	—	—	—	—	—	—	—	—	—	—
AC, 60 Hz	J	—	D	—	H	—	A	—	F	—	—	—	B	—	C
DC ⁽¹⁾	VL	—	—	VG	—	—	—	VG	—	—	—	—	—	—	—

(1) DC coil voltages are only available for NEMA sizes 0...3. When ordering a DC coil voltage, add "DC" to the catalog number. Example: 509DC-80VL.

⊗ Overload Relay Code

Code	Description
blank	Eutectic alloy

E100 Solid-state Overload Relay (3-phase)		
Code	NEMA Size	Full Load Current Adjustment Range [A]
A2C	00, 0, 1	0.2...1.0
A2E	00, 0, 1	1.0...5.0
A2F	00, 0, 1	3.2...16
A2G	0, 1, 2	5.4...27
A2J	1, 2	11...55
A2L	3	20...100
A2M	4	30...150
A2N	5	60...300

Modular Kit Options

Code	Description
9	One N.O. auxiliary contact for use on Eutectic overload relay
9A	One N.C. auxiliary contact for use on Eutectic overload relay
17	Surge suppressor for 120 or 240V AC coil

Code	Description
90 ⁽¹⁾	One N.O. auxiliary contact
91 ⁽¹⁾	One N.C. auxiliary contact

(1) Up to six combinations of auxiliary contacts can be selected. For example, Code 90011 indicates two N.O. contacts and two N.C. contacts.

Example: Catalog Number 509-C00-A2E-17-90 includes a NEMA size 2 starter with a 120V AC coil, E100 overload relay, a surge suppressor, and one N.O. auxiliary contact.