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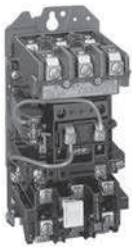
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Bulletin 509, Size 1 with Eutectic Alloy Overload Relay Open Type without Enclosure

Bulletin 509 Open Type Full Voltage Starter

- Feed-through construction
- Starter can be field wired for single- or three-phase applications

NEMA sizes 0…4
- Available as components or as a modular kit for faster delivery
- Product selection can be done via two options:
  - – Ordering a complete kit
  - – Ordering individual components
- Starter includes a 120V AC coil and (1) N.O. auxiliary contact, as standard

NEMA sizes 00, 5…9
- Available as factory assembled

NEMA sizes 00…9 (Enclosed)
- Available as factory assembled

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Standards Compliance

NEMA/EEMAC ICS 2
UL 508
CSA C22.2 No.14
ABS 4/5.115 — American Bureau of Shipping
UCSG 46 CFR 111.70
EN/IEC 60947-4-1
CE Marked

Certifications

CSA Certified (LR1234)
UL Listed (File No. E3125, Guide No. NLDX)
Hazardous Location: UL Listed (File No. E10314), CSA Certified (LR 11924)

Catalog Number Explanation
Example Cat. No.

509 – B O D – A2E – 17
a b c d e f

a

Bulletin No.	
Bulletin No.	Description
509	Top-wired contactor
509DC	Top-wired contactor (DC voltage)

b

NEMA Size	
Code	Description
T	00
A	0
B	1
C	2
D	3
E	4
F	5
G	6
H	7
J	8
K	9

c

NEMA Enclosure Type	
Code	Type
A	Type 1
C	Type 4X (stainless steel)
H	Type 3R, 7 & 9 bolted
J	Type 3R/4/12
O	No enclosure

d

Nominal Coil Voltage		
Code	Voltage	Frequency
A	220V 240V	50 Hz 60 Hz
B	440V 480V	50 Hz 60 Hz
C	550V 600V	50 Hz 60 Hz
D	110V 120V	50 Hz 60 Hz
F	277V	60 Hz
H	200…208V	60 Hz
I	415V	50 Hz
J	24V	50/60 Hz
N	380V	50 Hz
VL	24V DC	—
VG	125…250V DC	—

e

Eutectic Overload Relay	
Code	Description
blank	Eutectic Alloy

E1 Plus Solid-State Overload Relay		
Code	NEMA Size	Full Load Current Adjustment Range [A]
3-Phase		
A2C	0,1	0.2…1.0
A2E	0,1	1.0…5.0
A2F	0,1	3.2…16
A2G	0,1,2	5.4…27
A2J	1,2,3	9…45
A2L	3	18…90
A2M	4	30…150
A2N	5	60…300
A2R	6	120…600
A2T	7	256…810
A2U	8	384…1215
A2V	9	800…2250
1-Phase		
S2E	0,1	1.0…5.0
S2F	0,1	3.2…16
S2G	0,1,2	5.4…27
S2J	1,2,3	9…45
S2L	3	18…90

f

Factory Installed Modifications/Options
For detailed information, see Modifications on page 1-106.

or

Options	
Code	Description
9	(1) N.O. Auxiliary Contact for use on Eutectic Overload Relay
9A	(1) N.C. Auxiliary Contact for use on Eutectic Overload Relay
17	Surge Suppressor for 120 or 240V AC Coil
90	(1) N.O. Auxiliary Contact for use on Contactor*
91	(1) N.C. Auxiliary Contact for use on Contactor*

* Up to (6) combinations of auxiliary contacts can be selected. Example: Code 90011 indicates (2) N.O. and (2) N.C. contacts.

Heater Elements — Starters with eutectic alloy overload relays require 3 heater elements. See page 1-167 for heater element selection tables.

Note: All enclosed non-combination starters are supplied with external reset as standard, except for starters with E3 overload relay.

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1

Product Selection as Factory Assembled



Bulletin 509, Size 3
with Eutectic Alloy
Overload Relay,
Open Type without Enclosure



Bulletin 509, Size 5
with Solid-State
Overload Relay,
Open Type without Enclosure



Bulletin 509, Size 0
Stainless Steel Enclosure

Heater Elements — Starters with eutectic alloy overload relay require 3 heater elements. See page 1-167 for heater element selection tables.

3-Phase • 600V AC Maximum • 60 Hz • With 3-Pole Overload Protection

NEMA Size	Continuous Ampere Rating [A]	Maximum Horsepower Rating Full Load Current Must Not Exceed "Continuous Ampere Rating" — Motor Voltage 200V	230V	50 Hz 380…415V	460…575V	Open Type Without Enclosure Cat. No.	Type 1 General Purpose Enclosure Surface Mounting Cat. No.	Type 3R/4/12 Rainproof, Dusttight Industrial Use Enclosure Cat. No.	Type 4/4X Watertight Corrosion-Resistant Enclosures Stainless Steel Cat. No.✶
00	9	1.5	1.5	2	2	**509-TO⊗-✪**	**509-TA⊗-✪**	Use Size 0 starter	
0	18	3	3	5	5	♣	**509-AA⊗-✪**	**509-AJ⊗-✪**	**509-AC⊗-✪**
1	27	7.5	7.5	10	10	♣	**509-BA⊗-✪**	**509-BJ⊗-✪**	**509-BC⊗-✪**
2	45	10	15	25	25	♣	**509-CA⊗-✪**	**509-CJ⊗-✪**	**509-CC⊗-✪**
3	90	25	30	50	50	♣	**509-DA⊗-✪**	509-DJ⊗-✪	**509-DC⊗-✪**
4	135	40	50	75	100	♣	509-EA⊗-✪	509-EJ⊗-✪	**509-EC⊗-✪**
5	270	75	100	150	200	509-FO⊗-✪	509-FA⊗-✪	**509-FJ⊗-✪**	**509-FC⊗-✪**
6‡	540	150	200	300	400	**509-GO⊗-✪**	§ 509-GA⊗-✪	§ 509-GJ⊗-✪	§ 509-GC⊗-✪
7‡	810	—	300	600	600	509-HO⊗-✪	509-HA⊗-✪	509-HJ⊗-✪	—
8‡	1215	—	450	900	900	509-JO⊗-✪	509-JA⊗-✪	509-JJ⊗-✪	—
9	2250	—	800	1600	1600	509-KO⊗-✪	509-KA⊗-✪	509-KJ⊗-✪	—

✶ Sizes 6…8 are painted enclosures.
‡ Does not include line and load lugs, see page 1-118 for kits.
§ Price includes control current transformer.
♣ See page 1-46 for NEMA size 0…4 open type starters.

⊗ Coil Voltage Code

The cat. no. as listed is incomplete. Select a coil voltage code from the table below to complete the cat. no. Example: **Cat. No. 509-BA⊗-✪** becomes **Cat. No. 509-BAD-✪**. For other voltages, please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]		24	110	120	125	200-208	220	240	250	277	380	415	440	480	550	600
Common Control✦	AC, 50 Hz	—	—	—	—	–	A	—	—	—	N	I	B	—	C	—
	AC, 60 Hz	—	—	—	—	**H**	—	**A**	—	—	—	—	—	—	—	—
Transformer Control	AC, 60 Hz	—	—	—	—	**H**	—	**A**	—	—	—	—	—	**B**	—	**C**
Separate Control (without transformer)	AC, 50 Hz	K	D	—	—	—	—	—	—	—	—	—	—	—	—	—
	AC, 60 Hz	J	—	**D**	—	—	—	—	—	F	—	—	—	—	—	—
	DC➢	VL	—	—	VG	—	—	—	VG	—	—	—	—	—	—	—

✦ When selecting a factory-installed control circuit transformer (see Modifications on page 1-106), use the common control coil voltage code to denote the transformer primary voltage. The starter coil and transformer secondary voltage will both be 120V by default. Example: **Cat. No. 509-BAB-6P** will have a transformer with a 480V primary/120V secondary voltage and a 120V starter coil. If a starter coil voltage other than 120V is desired, a second coil voltage code must be added to denote the coil/transformer secondary voltage. Example: **Cat. No. 509-BABJ-6P** will have a transformer with a 480V primary/24V secondary and a 24V starter coil.
➢ DC voltage code is only available for NEMA sizes 0…3. When ordering a DC voltage code (VL or VG), add "DC" to the catalog number. Example: **Cat. No. 509DC-BOVL.**

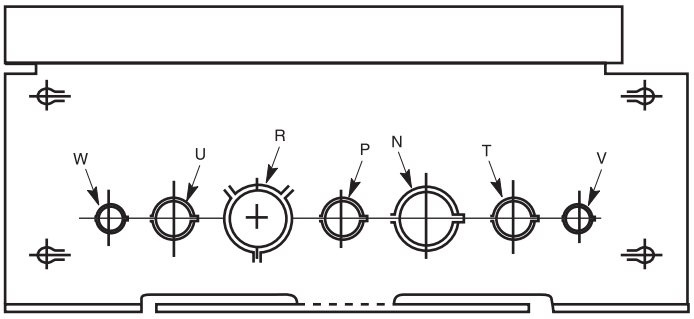
✪ Overload Relay Code

Use to order solid-state overload relay. Do not use when ordering eutectic alloy overload relay. The cat. no. as listed is incomplete. Select an overload relay code from page 1-164 to complete the cat. no. Example: **Cat. No. 509-BAD-✪** becomes **Cat. No. 509-BAD-A2E**.

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Approximate dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Type 3R (Enclosure Code "N") Rainproof Narrow Enclosures — for Bulletins 1232 and 1233



Bulletin No.	NEMA Size	Approximate Dimensions in Inches (Millimeters)							
		N		P		R		T	
		Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside
1232 1233	1	1-3/8 (35) 1 in. Hub	1-23/32 (44) 1-1/4 in. Hub	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub	1-23/32 (44) 1-1/4 in. Hub	1-31/32 (50) 1-1/2 in. Hub	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub
	2								
	3	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub	1-31/32 (50) 1-1/2 in. Hub	2-15/32 (63) 2 in. Hub	1-3/8 (35) 1 in. Hub	1-31/32 (50) 1-1/2 in. Hub	1-3/8 (35) 1 in. Hub	1-23/32 (44) 1-1/4 in. Hub

Bulletin No.	NEMA Size	Approximate Dimensions in Inches (Millimeters)					
		U		V		W	
		Inside	Outside	Inside	Outside	Inside	Outside
1232 1233	1	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub	—	—	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub
	2						
	3	7/8 (22) 1/2 in. Hub	1-1/8 (29) 3/4 in. Hub	1-31/32 (50) 1-1/2 in. Hub	2-15/32 (63) 2 in. Hub	3 (76) 2-1/2 in. Hub	3 (76) 2-1/2 in. Hub

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Starters Without Overload Relays for Field Assembly of Starters Using Bulletin 592 Overload Relays ❖

These products are intended for field installation of Bulletin 592 Eutectic, or 592 electronic overload relays (select Bulletin 592 overload relays from page 1-161…page 1-164). The overload relays ship in a starter carton with provisions for mounting the overload relay (includes a starter mounting plate, screws/bolts, and instructions).

Eutectic Alloy Overload Relays — Overload relay codes do not apply. Use Cat. No. as listed in the product selection tables. Select heater elements from page 1-167.

❖ All Sizes — No overload relay.
Bulletins 520, 522, and 523 require two overload relays.
Bulletins 530, 1282, and 1283 require two overload relays. When selecting the proper electronic overload relay or heater, divide motor nameplate full load amperes by 2.00. Use this value to select the proper overload relays.
Bulletins 540, 1242, and 1243 have one overload relay. When selecting the proper electronic overload relay or heater, divide motor nameplate full load amperes by 1.73. Use this value to select the proper overload relays.

E1 Plus Solid-State Three-Phase Overload Relay (Selectable Class 10, 20, or 30) (Automatic/Manual Reset)

For use with Bulletins 505, 505V, 506, 507, 509, 512, 512M, 513, 520, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1232, 1232X, 1233, 1233X, 1242, 1243, 1272, 1273, 1282, and 1283.♣➢⌘

NEMA Size	Full Load Current Adjustment Range [A]	Overload Relay Code Class 10, 15, 20, 30
00	0.1…0.5	A2A
	0.2…1.0	A2C
	1.0…5.0	A2E
	3.2…16	A2F
0, 1 1PW 1YD	0.2…1.0	A2C
	1.0…5.0	A2E
	3.2…16	A2F
	5.4…27	A2G
1	9…45	A2J
2 2PW 2YD	5.4…27	A2G
	9…45	A2J
3 3PW 3YD	9…45	A2J
	18…90	A2L
4 4PW 4YD	30…150	A2M
5 5PW 5YD	60…300	A2N
6 6PW 6YD	120…600	A2R
7✦	256…810	A2T
8✦	384…1215	A2U
9✦	800…2250	A2V

E1 Plus Solid-State Single-Phase Overload Relay (Selectable Class 10, 20, or 30) (Automatic/Manual Reset)

For use with Bulletins 505, 505V, 506, 507, 509, 512, 512M, 513, 520, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1232, 1232X, 1233, 1233X, 1242, 1243, 1272, 1273, 1282, and 1283.♣➢⌘

NEMA Size	FLC Adjustment Range [A]	Overload Relay Code
00	1.0…5.0	S2E
	3.2…16	S2F
	5.4…27	S2G
0…2	1.0…5.0	S2E
	3.2…16	S2F
	5.4…27	S2G
	9…45	S2J
3	18…90	S2L

E3 Electronic Overload Relay: 2 Inputs/1 Output

For use with Bulletins 509, 512, 512M, 513, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1232, 1232X,1233, 1233X, 1242, 1243, 1272, 1273, 1282, and 1283.

NEMA Size	FLC Adjustment Range [A]	Overload Relay Code❄
00	1…5	EC1A
	3…15	EC1B
0…2	1…5	EC1A
	3…15	EC1B
	5…25	EC1C
	9…45	EC1D
3	9…45	EC1D
	18…90	EC1E
4	28…140	EC1F
5	60…302	EC1H
6	125…630	EC1K

E3 Plus Electronic Overload Relay: 4 Inputs/2 Outputs, Built-In Ground Fault Sensor, PTC Thermistor Input

For use with Bulletins 505, 505V, 506, 507, 509, 512, 512M, 513, 520, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1232, 1232X, 1233, 1233X, 1242, 1243, 1272, 1273, 1282, and 1283; **excluding Modular Kits.**✶

NEMA Size	FLC Adjustment Range [A]	Overload Relay Code❄
00	1…5	EC2A
	3…15	EC2B
0…2	1…5	EC2A
	3…15	EC2B
	5…25	EC2C
	9…45	EC2D
3	9…45	EC2D
	18…90	EC2E
4	28…140	EC2F
5	60…302	EC2H

✶ Bulletin 520 requires two overload relay codes to complete the cat. no. The first code will denote the high speed overload relay and the second code will denote the low speed overload relay.

❄ Rockwell Automation recommends using 120 or 240V AC coils on all NEMA Starters with E3 or E3 Plus electronic overload relays. When using coil voltages other than 120 or 240V AC, consult your local Rockwell Automation sales office or Allen-Bradley distributor.

✦ These overload relays have an interposing relay with a 120V AC coil.

♣ Bulletins 520, 522, and 523 require two overload relay codes to complete the Cat. No. The first code will denote the high speed overload relay and the second code will denote the low speed overload relay.

➢ Bulletins 530, 532, 533, 1282, and 1283 have two overload relays and require two overload relay codes to complete the Cat. No. When selecting the proper overload relay, divide motor nameplate full load amperes by 2.00. Use this value to select the proper overload relay codes.

⌘ Bulletins 540, 542, 543, 1242, and 1243 have one overload relay. When selecting the proper overload relay, divide motor nameplate full load amperes by 1.73. Use this value to select the proper overload relay code.

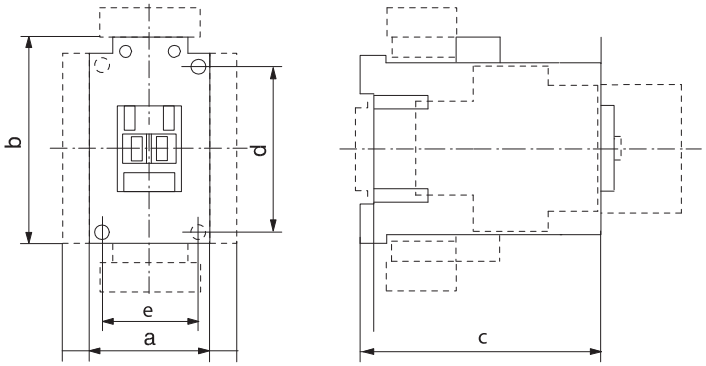
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Approximate Dimensions

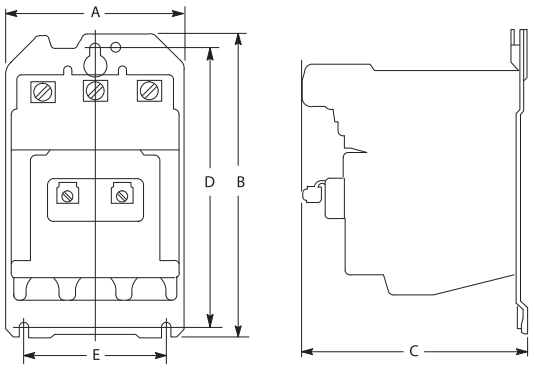
NEMA AC Contactors

Approximate dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Open Type without Enclosure for Bulletin 500FL, 500L, and 500LP and for NEMA sizes 00, 5…9 for Bulletin 500 and 500F Contactors



Sizes 00



Sizes 0...5

Note: Top mounting hole on Size 00 is 1/4 in. (6.35 mm) to the left of centerline on Open Type. Mounting screws: 3…#10 for sizes 0…2, 1/4…#20, or 5/16…#18 for sizes 3…5.

NEMA Size	Number of Switching Poles		Dimensions in Inches (Millimeters)					Approximate Shipping Weight [lb (kg)]
	Bulletin 500 500F-500FL	Bulletin 500L-500LP	A Width	B Height	C Depth	D	E	
00 5/10A	1-2-3	2…3	1-25/32 (45)	3-3/16 (81)	3-11/64 (80.5)	2-23/64 (60)	1-25/64 (35)	1 (0.45)
0…1 15/20A 30A	2…3	2…3	3-9/16 (90.5)	6 (152)∗	4-15/32 (113)	5-1/2 (140)	2-3/4 (70)	3 (1.4)
	4	—	4-3/8 (111)					3-1/2 (1.6)
	5	4	4-15/16 (125)					4-3/4 (2.2)
2 60A	2…3	2…3	3-15/16 (100)	6-27/32 (173)∗	4-23/32 (120)	6-5/16 (160)	3-5/32 (80)	4 (1.8)
	4	—	4-31/32 (126)					4-3/4 (2.2)
	5	4	5-1/2 (140)					6-1/4 (2.8)
3 100A	2…3	2…3	6-1/8 (155.5)	10-3/64 (255)	6-19/32 (167.4)	8-21/32 (220)	5-33/64 (140)	14.5 (6.5)
	4	—	7-15/16 (201.6)					16 (7.25)
	5	4	8-13/16 (223.8)					18 (8)
4 200A	2…3	2…3	7 (178)	12-11/64 (309)❄	7-13/16 (198.4)	9-27/32 (250)	6-5/16 (160)	22 (10)
	4	—	9-1/16 (230.2)					25.5 (11.5)
	5	4	10-7/16 (265.1)					28.5 (13)
5 300A	2…3	2…3	7 (178)	13-25/64 (340)‡	8-17/32 (217)	9-27/32 (250)	6-5/16 (160)	24 (10.9)

∗ For Feed-Through Wiring this dimension is 6-15/16 in. (176 mm).
❄ For Feed-Through Wiring this dimension is 11-11/16 in. (297 mm).
‡ For Feed-Through Wiring this dimension is 12-37/64 in. (320 mm).

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Contactor Accessories

For use on Bulletins 500, 500F, 500L, 500FL, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V



Description		NEMA Size	Cat. No.
	Coils (60 Hz) 115…120V	0…1	**CB-236**
	200…208V		**CB-249**
	230…240V		**CB-254**
	460…480V		**CB-273**
	575…600V		CB-278
	115…120V	2	**CC-236**
	200…208V		**CC-249**
	230…240V		**CC-254**
	460…480V		**CC-273**
	575…600V		CC-278
	115…120V	3	**CD-236**
	200…208V		**CD-249**
	230…240V		**CD-254**
	460…480V		**CD-273**
	575…600V		CD-278
	115…120V	4	**CE-236**
	200…208V		CE-249
	230…240V		**CE-254**
	460…480V		**CE-273**
	575…600V		CE-278
	115…120V	5 (SER. L)	**AF-236**
	200…208V		AF-249
	230…240V		AF-254
	460…480V		AF-273
	575…600V	5	AF-278

Note: For complete listing of coils available, see page 1-157

Surge Suppressor — Made to be easily mounted directly across the coil terminals of contactors and starters with 120V or 240V AC coils. The purpose of the suppressor is to limit voltage transients for applications requiring interface with solid-state components. One suppressor is required per coil.



Cat. No. 100-FSC280

	RC Module AC Operating Mechanism 24…48V AC, 50/60 Hz	00∗	**100-FSC48**
	110…280V AC, 50/60 Hz		**100-FSC280**
	380…480V AC, 50/60 Hz		**100-FSC480**
	Varistor Module AC/DC Operating Mechanism 12…55V AC/ 12…77V DC	00∗	**100-FSV55**
	56…136V AC/ 78…180V DC		**100-FSV136**
	137…277V AC/ 181…350V DC		**100-FSV277**
	278…575V AC		**100-FSV575**
	12…120V AC	0…5	**599-K04**
	240…264V AC Varistor		**599-KA04**
	12…120V AC	6	**199-FSMA1**❄
	12…120V AC Varistor		**199-GSMA1**‡
	120V AC	7…8	**700-N24**



Cat. No. 599-K04

∗ For non-combination starters only.
❄ For use on the interposing relay.
‡ For use on the contactor or starter.





Description		NEMA Size	Cat. No.
	Terminal and Lug Covers Line side terminal covers	0…1	**599-TC01N**
		2	**599-TC2N**
		3	**599-TC3N**
		4	**599-TC4N**
		5	**599-TC5N**
	Line side terminal covers (reversing)	0…1	**599-TC01R**
	Tie Point Terminal	0…2	599-TP02
		3…5	599-TP34



Cat. No. 599-PS01

Description	For Use With	No. of Poles	NEMA Size	Cat. No.
Protective Covers	500/F/FL, 500L, 500LP, 505	3	0…1	**599-PC01**
	509, 505, 520E (2), 520F/G	3	0…1	**599-PS01**➢
	500L, 500LP	5	0…1	599-PC01-5⌘
	520F/G	5	0…1	599-PS01-5➢
	500/F/FL, 500L, 500LP, 505	3	2	**599-PC2**
	509, 505, 520E (2), 520F/G	3	2	**599-PS2**➢
	500L, 500LP	5	2	599-PC2-5⌘
	520F/G	5	2	599-PS2-5➢
	500/F/FL, 500L, 500LP, 505	3	3	**599-PC3**
	509, 505, 520E (2), 520F/G	3	3	**599-PS3**➢
	500L, 500LP	5	3	599-PC3-5⌘
	520F/G	5	3	599-PS3-5➢
	500/F/FL, 500L, 500LP, 505	3	4	**599-PC4**
	509, 505, 520E (2), 520F/G	3	4	599-PS4➢
	500L, 500LP	5	4	599-PC4-5⌘
	520F/G	5	4	599-PS4-5➢
	500/F/FL, 500L, 500LP	3	5	599-PC5
	509	3	5	599-PS5➢

⌘ Used on 5-pole contactors and starters.
➢ Bul. 592 Eutectic alloy or solid-state overload relays.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Contactor Accessories, continued

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X and 1233V

Timer Attachment Kit — A pneumatic timer attachment may be field installed in the space of two adjacent auxiliary contact blocks. Timing units are available for either ON-Delay or OFF-Delay operation with a timed set of one (1) N.O. and one (1) N.C. snap-action contacts that are electrically isolated.
Repetitive accuracy within the timer range is approximately ±10% provided a minimum reset time of 75 ms is allowed.
Note:
- Sizes 0…5: Timers can be added to the left- or right-hand side of the contactor body. On Size 00 they can be mounted to the front of the contactor.
- Size 0, 1 and 2: Timers cannot be used on the same side as power pole adders.
- Size 2 Devices: The operating coil must be changed. See [T-1678929] and refer to the size 2 operating coil listing. Order the coil listed for a 4-…5-pole device.

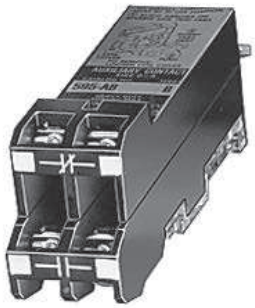
Note: These coils can also be factory installed.
- Enclosed Devices: Please contact your local Rockwell Automation sales office or Allen-Bradley distributor.

Contact Ratings: NEMA A600 (10 A, 600V AC max.)
NEMA P300 (5 A, 300V DC max.)

Description		NEMA Size	Cat. No.
	**On-Delay**	00§	**100-FPTA30**
	On-Delay		**100-FPTA180**
	Off-Delay		**100-FPTB30**
	Off-Delay		**100-FPTB180**
	Left-hand ON Delay	0…5	596-TL32
	Left-hand OFF Delay		**596-TL33**
	Right-hand ON Delay		**596-TR32**
Cat No. 596-TR32	Right-hand OFF Delay		596-TR33

§ For open type, non-combination starters only.

Description		NEMA Size	Cat. No.
Auxiliary Contact — Contactors	1 N.O.	0…5	**595-A**
	2 N.O.	0…5	**595-AA**
	1 N.C.	0…5	**595-B**
	2 N.C.	0…5	**595-BB**
	1 N.O. and N.C.	0…5	**595-AB**
	1 N.C.L.B.	0…5	**595-BL**
	1 N.O.	6	**195-GA10**
	1 N.O.	7	♣ **1495-J6**
	2 N.O.	6	**195-GA20**
	2 N.O.	7…8	♣ **1495-K6**
	2 N.O.	9	♣ 1495-K8
	1 N.C.	6	**195-GB01**
	1 N.C.	7…9	♣ **1495-J6**
	2 N.C.	6	**195-GB02**
	2 N.C.	7…8	♣ **1495-K6**
	2 N.C.	9	♣ 1495-K8
	1 N.O. and N.C.	6	**195-GB11**
	2 N.O.	7…8	♣ **1495-K6**
	2 N.O.	9	♣ 1495-K8
	1 N.C.L.B.	6	**195-GL01**



♣ The normally open contacts can easily be changed to normally closed in the field.

Power Pole Adders — The 1 N.O. and 1 N.C. power poles may be field added to all size 0…4 Bulletin 500 line contactors and starters except the Bulletin 500L and 500FL. Two- and three-pole contactors will accept a maximum of two adder poles and four-pole devices will accept one adder pole. Each adder pole kit includes a mechanical load balancer to be used when only one power pole is added.
Note: When power poles are added to Size 2, 3, or 4 (2- or 3-pole devices) the operating coil must be changed. Refer to the listing for the size of your contactor or starter. Order the operating coil listed for a 4-…5-pole device.
Note: These coils can also be factory installed.

Description		NEMA Size	Cat. No.
	1 N.O.	0…1	**599-P01A**
	1 N.C.		**599-P01B**
	1 N.C. Late Break		599-P01BL
	1 N.O.	2	**599-P2A**
	1 N.C.		599-P2B
	1 N.C. Late Break		599-P2BL
	1 N.O.	3	599-P3A
	1 N.C.		599-P3B
Cat. No. 599-P01A (1 N.O.) Size 0…1, 27 Amps.	1 N.O.	4	599-P4A
	1 N.C.		599-P4B

Contactor Kick-off Springs — For horizontal mounting of 2- or 3-pole Bulletin 500 contactors and starters.
Note: When kick-off springs are added to Size 2, 3 or 4, the operating coil must be changed. Refer to the listing for the size of your contactor or starter. Order the operating coil listed for a 4-pole device.
Note: These coils can also be factory installed.

Description		NEMA Size	Cat. No.
	—	0…1	599-N11
		2	599-N12
		3	599-N13
		4…5	599-N14

	Wire Size	NEMA Size	Cat. No.
	Lug Connectors (3 per package)		
	#14…8 AWG Wire	0…1	✶
	#14…4 AWG Wire	2	**1494R-N1**
	#8…1/0 AWG Wire	3	**1494R-N2**
	#6…4/0 AWG Wire	4	**1494R-N3**
Cat. No. 1494R-N3	2 of #1/0…350 MCM Wire	5	42450-804-01

✶ All terminals of the 30 A switches are furnished with self-lifting pressure plate connectors as standard.

Description			NEMA Size	Cat. No.
	Terminal Lug Kit	Two #1/0 150…500 MCM 1 required per terminal	6	**199-LJ1**
	Terminal Lug Kit	#4 AWG…500 MCM 3 required per terminal for Size 7 and 4 required per terminal for Size 8	7…8	**199-LG1**

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Contactor Accessories, continued

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X and 1233V

Description		NEMA Size	Cat. No.
Auxiliary Contact Adder Decks — The same 2- and 4-pole auxiliary contact blocks in various combinations of normally open and normally closed will slide and snap on to the front of the contactor. Adder decks have convenient backed out wire clamps to make lugging of control wires unnecessary. **Fits on Open Type devices only.**			
	2 N.O.	00	**100-FA20**
	1 N.O. -1 N.C.		**100-FA11**
	2 N.C.		**100-FA02**
	4 N.O.		**100-FA40**
	3 N.O.-1 N.C.		**100-FA31**
	2 N.O. -2 N.C.		**100-FA22**
4-pole	4 N.C.		**100-FA04**
24V DC Interface Module — Mounts to the top of the contactor. It provides a 24V DC, 0.5 w input signal that can be used to operate the 24…240V AC coil of the contactor. **Fits on Open Type devices only.**			
	—	00	**100-JE**
Latch Attachment — On the front of the contactor. **Fits on Open Type devices only.**			
	—	00	100-FL11⊗
Interposing Contactor — For open type Bulletin 500 and 500L.	120V, 60 Hz	6	500-NX100D
	240V, 60 Hz	6	500-NX100A
Top Wiring Kit — Consists of (3) power lugs for the purpose of making extra connections to the load side of the contactor. A second set of overload relays can be wired to these lugs if two motors are being controlled by a single contactor.			
	—	0…1	**599-TW01**
	—	2	599-TW2
	—	3	599-TW3
	—	4	599-TW4
Cat No. 599-TW01	—	5	599-TW5P

⊗ Voltage Suffix Code

The cat. no. as listed is incomplete. Select a voltage suffix code from the table below to complete the Cat. No. Example: 120V, 60 Hz: **Cat. No. 100-FL11⊗** becomes **Cat. No. 100-FL11D**. For other voltages, please consult your local Rockwell Automation sales office or Allen-Bradley distributor.

[V]	24	48	100	110	120	230… 240	240	277	380… 400	400… 415	400	480
50 Hz	K	Y	KP	D	—	VA	T	—	N	G	B	—
60 Hz	J	—	—	—	D	—	A	T	—	—	N	B

‡ To complete cat. no., insert in the third position the desired numeric symbol (0…5) or one of the following letters — A, B, C, D, E, F, H, L, M, P, R, S, T, U, or W.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Contactor Accessories, continued

Description	Enclosure Type	NEMA Size	Cat. No.
  **Adapter Plates —** For replacement of: • Allen-Bradley (Bulletin 709 Series K) • Cutler Hammer (Citation & Freedom Series) • Furnas (Class 14 and ESP 100) • General Electric (Series 300) • Joslyn-Clark (Type HP) • Square D (Type S) • Westinghouse (A200 and W200 Advantage)	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0, 1	599-CP01
		2	599-CP2

For use on Bulletins 512V, 513V, 1232V, 1233V

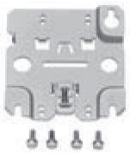
Contactors are supplied with one normally open and one normally closed auxiliary contact (A600 rating) as standard. Additional auxiliary contacts, two normally open and two normally closed, can be added in the field.

Description	Cat. No.
Auxiliary Contact (10 A @ 600V)	**1195C-N3**
Auxiliary Contact (10 mA @ 5V DC)	1195C-N4

Overload Accessories

For use on Bulletins 500, 500F, 500FL, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

Description		NEMA Size	Cat. No.
 **Auxillary Contact —** For eutectic alloy overload relays only∗ **Contact Ratings —** NEMA A600 (10 A, 600V AC max.) NEMA P300 (5 A, 300V DC max.)	**Auxiliary Contact —** For eutectic alloy overload relays only∗		
	1 N.O.	00, 3-phase❄	**595-A00**
	1 N.C.	00, 3-phase❄	**595-B00**
	1 N.O.	0…2, 5…9	**595-A02**
	1 N.C.		**595-B02**
	1 N.O.	3…4	**595-A34‡**
	1 N.C.		**595-B34§**

Description		Max. Continuous Current Rating [A]	Cat. No.
	**DIN Rail Mounting Adapter** for Bulletin 592 compact type 3-pole overload relays	40	599-MP1
	DIN Rail Mounting Adapter for Bulletin 592 compact type 1-pole overload relays	62	599-MP2

∗ Auxiliary contact for solid-state overload relays is included in the product.
❄ Non-combination starters only.
‡ Auxiliary contact mounted on right-hand side of overload relay provides N.O. contact function. Auxiliary contact mounted on left-hand side of overload relay provides N.C. contact function.
§ To be mounted on right-hand side of overload to provide additional AC contact function.

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Voltage Control Accessories

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V; excluding Modular Kits

Control Circuit Transformer with Top-Mounted Fuse Block Kits (pre-wired)∗❄



NEMA Size	Primary Voltage	Capacity – 120V Secondary Voltage									
		Standard		100 W Extra		200 W Extra		300 W Extra		400 W Extra	
		VA	Cat. No.	VA	Cat. No.	VA	Cat. No.	VA	Cat. No.	VA	Cat. No.
0…2	208V	80	**1497-N1PK**	130	1497-N15PK	250	1497-N7PK	350	1497-N10PK	500	1497-N18PK
	240V & 480V		**1497-N2PK**		**1497-N16PK**		**1497-N8PK**		**1497-N11PK**		**1497-N19PK**
	600V		**1497-N3PK**		1497-N17PK		1497-N9PK		**1497-N12PK**		**1497-N20PK**
3	208V	200	**1497-N4PK**	250	1497-N7PK	350	1497-N10PK	500	1497-N18PK	500	1497-N18PK
	240V & 480V		**1497-N5PK**		**1497-N8PK**		**1497-N11PK**		**1497-N19PK**		**1497-N19PK**
	600V		**1497-N6PK**		1497-N9PK		**1497-N12PK**		**1497-N20PK**		**1497-N20PK**
4	208V	250	1497-N7PK	350	1497-N10PK	500	1497-N18PK	—	—	—	—
	240V & 480V		**1497-N8PK**		**1497-N11PK**		**1497-N19PK**	—	—	—	—
	600V		1497-N9PK		**1497-N12PK**		**1497-N20PK**	—	—	—	—
5	208V	350	1497-N10PK	500	1497-N18PK	—	—	—	—	—	—
	240V & 480V		**1497-N11PK**		**1497-N19PK**	—	—	—	—	—	—
	600V		**1497-N12PK**		**1497-N20PK**	—	—	—	—	—	—
6	208V	500	1497-N18PK	—	—	—	—	—	—	—	—
	240V & 480V		**1497-N19PK**	—	—	—	—	—	—	—	—
	600V		**1497-N20PK**	—	—	—	—	—	—	—	—

∗ Transformers for NEMA sizes 7…9 are included as standard.

❄ Type 4/4X non-metallic enclosures and Type 7 & 9 hazardous location enclosures require transformers with separately mounted fuse blocks. For a complete listing of transformers, see page 8-39.

Control Circuit Transformers with Top Mounted Fuse Blocks‡❄



NEMA Size	Primary Voltage/ 3 Pole Fuse Block	Capacity – 120V Secondary Voltage	
		Standard	
		VA	Cat. No.
0…2	208V	80	**1497-B-HXDX-3-N**
	240V & 480V		**1497-B-BASX-3-N**
	600V		**1497-B-CXSX-3-N**
3	208V	200	**1497-D-HXDX-3-N**
	240V & 480V		**1497-D-BASX-3-N**
	600V		**1497-D-CXSX-3-N**
4	208V	250	1497-E-HXDX-3-N
	240V & 480V		**1497-E-BASX-3-N**
	600V		**1497-E-CXSX-3-N**
5	208V	350	**1497-F-HXDX-3-N**
	240V & 480V		**1497-F-BASX-3-N**
	600V		**1497-F-CXSX-3-N**

‡ Transformers can be installed in Type 1, 3R, 3R/4/12 painted enclosures and Type 4/4X stainless steel enclosures.

❄ Type 4/4X non-metallic enclosures and Type 7 & 9 hazardous location enclosures require transformers with separately mounted fuse blocks. For a complete listing of transformers, see page 8-39.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Voltage Control Accessories, continued

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1232X, and 1233V; excluding Modular Kits

For Use When Fuse Block Is Not Integrated with the Transformers



Cat. No. 1491-R165
1-Pole Fuse Block



Cat. No. 1491-R167
2-Pole Fuse Block



Cat. No. 1491-R171
3-Pole Fuse Block



Cat. No. 1491-R169
3-Pole Fuse Block



Cat. No. 1491-R150
Fuse Cover without Fuse♣

These control circuit fusing kits are intended to be used for control circuit transformer protection and protection of control circuits capable of delivering no more than 200 000 RMS symmetrical amperes, 600V maximum. (Fuses not included.)

Description✶	Cat. No.
One-pole kit — panel-mounted (midget fuse)❄	**1491-R165**
Control Circuit Fuse Block For Class CC rejection type fuses (fuses not included)❄	**1491-R162**
Two-pole kit — panel-mounted (two midget fuses)❄	1491-R167
Three-pole kit — panel-mounted (one midget fuse/two Class CC fuses)❄	1491-R169
Three-pole kit — panel-mounted (three Class CC fuses)	**1491-R171**
Single-pole kit — Bulletin 500 line controller mounted (Class CC fuses)‡	**599-FR04**
One-pole kit — panel-mounted (31…60 A Class J fuse)	1491-R173
One-pole kit — panel-mounted (61…100 A Class J fuse)	1491-R175

✶ For control circuit transformers with a 350 VA or larger rating, it is recommended that Bussmann Type FNQ-R, Ferraz-Shawmut Type ATDR, Littelfuse Type KLDR time delay fuses, or equivalent be used for primary fusing.

❄ These kits use only Class CC or midget fuses (rated 0.5…30 A) such as those offered by the following manufacturers:
- Bussmann KTK-R
- Ferraz-Shawmut ATM R
- Littelfuse KLK

‡ **Cat. No. 599-FR04** is rated for 6 A fuse maximum. Controller mounting applies to size 0…5 devices only.

♣ One cover per pole is required. Example: transformer with top-mounted fuse block requires three covers. Fuse block kit for separate control requires two covers. Fuses not included.

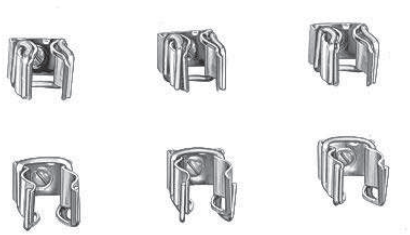
Description		NEMA Size	Cat. No.
	Single-pole kit — Bulletin 500 line controller mounted (Class CC fuses)	0…5	**599-FR04**

Note: One cover per pole is required. Example: transformer with top-mounted fuse block requires three covers. Fuse block kit for separate control requires two covers.

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Disconnect Switch Accessories

For use on Bulletins 502, 502L, 506, 506X, 512, 512H, 512M, 512V, 522, 532, 542, 572, 1242, 1272, 1282, 1232X, and 1232V

	Description	NEMA Size	Cat. No.
	**Fuse Clips** 0…30 A, 250V AC, Class H	0…2	**1401-N41**
	0…30 A, 250V AC, Class J 0…30 A, 600V AC, Class H 0…30 A, 600V AC, Class J 31…60 A, 250V AC, Class H	1…3	**1401-N42**
	31…60 A, 250V AC, Class J 31…60 A, 600V AC, Class H 31…60 A, 600V AC, Class J	1…3	**1401-N43**
	61…100 A, 250V AC, Class H 61…100 A, 250V AC, Class J 61…100 A, 600V AC, Class H 61…100 A, 600V AC, Class J	2…4	**1401-N44**
	101…200 A, 250V AC, Class H 101…200 A, 250V AC, Class J 101…200 A, 600V AC, Class H 101…200 A, 600V AC, Class J	3…5	**1401-N45**
	201…400 A, 250V AC, Class H 201…400 A, 250V AC, Class J 201…400 A, 600V AC, Class H 201…400 A, 600V AC, Class J	4…5	**1401-N46**
	0…30 A, 250V AC, Class R 0…30 A, 600V AC, Class R 31…60 A, 250V AC, Class R	0…2❄	**1401-N50** **1401-N51**
	31…60 A, 600V AC, Class R	1…3	**1401-N52**
	61…100 A, 250V AC, Class R 61…100 A, 600V AC, Class R	2…4	**1401-N53**
	101…200 A, 250V AC, Class R 101…200 A, 600V AC, Class R	3…5	**1401-N54**
	201…400 A, 250V AC, Class R 201…400 A, 600V AC, Class R	5…6	**1401-N55**
	0…30 A, 250V AC HRC Form II Fusing✶ 0…30 A, 600V AC HRC Form II Fusing✶ 31…60 A, 250V AC HRC Form II Fusing✶ 31…60 A, 600V AC HRC Form II Fusing✶	0…2❄ 1…3	⌘
	**Auxiliary Contacts for Disconnect Switches** 1 N.O.	0…5	**1495-N8**
	1 N.C.	0…5	**1495-N9**

✶ HRC Form II fusing for Canada only.
❄ For 0…30 A only.
⌘ Fuse clip not required. Fuse bolts directly to switch and trailer fuse block.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Disconnect Switch Accessories, continued

For use on Bulletins 502, 502L, 506, 506X, 512, 512H, 512M, 512V, 522, 532, 542, 572, 1242, 1272, 1282, 1232X, and 1232V



Cat. No. 1494R-N3

Description		For Use With	Cat. No.
Lug Connectors (3 per package)		1494C, 1494F, 1494G, and 1494V Disconnect Switches	
Disconnect Size [A]	**Wire Size**		
30	#14…8 AWG Wire		✶
60	#14…4 AWG Wire		§ **1494R-N1**
100	#8…1/0 AWG Wire		§ **1494R-N2**
200	#6…4/0 AWG Wire		§ **1494R-N3**
400	#6…250 MCM AWG 16 mm²…120 mm²		**1494R-N14**
400	#4 AWG…500 MCM Wire (oversized)		**1494R-N15**
600	(2) of #1/0…350 MCM Wire		§ **1494R-N10**
600	(2) of #1/0…350 MCM Wire	1491-N621 or 1491-R621 600 A fuse blocks	♣ **1494R-N11**



Protective Fuse Covers				
		Fuse Clip Rating [A]		
Switch Rating [A]	**Fuse Class**	**250V**	**600V**	**Cat. No.**
30 30 60 30 60 60 100	Non-fusible H, R H, R J J Non-fusible Non-fusible	— 30 60 30 60 — —	— — — 30 60 — —	**1495-N64**
30 60 100	H, R H, R J	— — 100	30 60 100	**1495-N65**
100	H, R J	100 200	100 200	**1495-N66**
200 200	Non-fusible H, J, R J	— — 200 400	— — 200 400	➢ **1495-N67**
200 200	Non-fusible H, J, R	— 200	— 200	⌘ **1495-N62**
400 400	Non-fusible H, J, R	— 400	— 400	➢ **1495-N68**
400 400	Non-fusible H, J, R	— 400	— 400	⌘ **1495-N63**
600	Non-fusible J	— 600	— 600	➢ **1495-N61**

✶ All terminals of the 30 A switches are furnished with self-lifting pressure plate connectors (N56, N57, and N58) as standard.
§ Each kit contains three lugs.
♣ Each kits contains two lugs.
➢ Switch with right-hand mechanism.
⌘ Switch with left-hand mechanism.

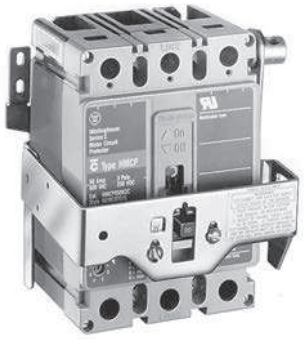
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Circuit Breaker Accessories

For use on Bulletins 503, 503L, 507, 507X, 513, 513H, 513M, 513V, 523, 533, 543, 573, 1243, 1273, 1283, 1233X, and 1233V

	Description	NEMA Size	Cat. No.
	**Circuit Breaker Kits**		
	3 A, 0…1/3 Hp @ 200 and 230V 3 A, 0…1 Hp @ 460 and 575V	0…1	1401-N60
	7 A, 0.5…1 Hp @ 200 and 230V 7 A, 1.5…3 Hp @ 460 and 575V	0…1	**1401-N61**
	15 A, 1.5…3 Hp @ 200 and 230V 15 A, 5…7.5 Hp @ 460 and 575V	0…1	**1401-N62**
	30 A, 5 Hp @ 200V 30 A, 5…7.5 Hp @ 230V 30 A, 10…15 Hp @ 460 and 575V	1…2	1401-N63
	50 A, 5…10 Hp @ 200V 50 A, 10 Hp @ 230V 50 A, 20…25 Hp @ 460V 50 A, 20…30 Hp @ 575V	1…3	**1401-N64**
	100 A, 15…25 Hp @ 200 and 230V 100 A, 30…50 Hp @ 460V 100 A, 40…50 Hp @ 575V	2…4	**1401-N65**
	150 A, 30 Hp @ 200V 150 A, 30…40 Hp @ 230V 150 A, 60…75 Hp @ 460V 150 A, 75…100 Hp @ 575 V	3…4	1401-N66
	250 A, 125 Hp @ 575V	5	1401-N68
	250 A, 50…60 Hp @ 200V 250 A, 60…75 Hp @ 230V		1401-N69
	**Auxiliary Contacts for Disconnect Switches**		
	One normally open (1 N.O.) Adapter kit may be required. ✶ Bolted — One normally open (1 N.O.)❄ Unilock — One normally open (1 N.O.)❄	0…5‡ 4…5§	**1495-N8**
	One normally closed (1 N.C.) Adapter kit may be required.✶ Bolted — One normally closed (1 N.C.)❄ Unilock — One normally closed (1 N.C.)❄	0…5	**1495-N9**
	Unilock — One normally open (1 N.O.)❄	0…2	1495-N14
	Unilock — One normally closed (1 N.C.)❄	0…2	1495-N15
	HMCP Circuit Breaker Adapter Kits (for mounting 1 or 2 auxiliary contacts) 400 A Frame❄	5	1495-N16
	150 A Frame	3…4	**1495-N21**
	250 A Frame - Enclosure Type 1, 3R/4/12, 3R and 4/4X (stainless steel) 250 A Frame - Enclosure Type 7 & 9 (bolted & Unilock) and 4/4X (non-metallic)	4…5♣ 0…5➢	**1495-N22**
	250 A Frame - Enclosure Type 1, 3R/4/12, 3R, and 4/4X (stainless steel)	4	**1495-N23**
	Unilock — 150 A Frame❄	3…4	**1495-N21**
	Unilock — 250 A Frame❄	4…5	**1495-N22**

✶ Contact Ratings — NEMA B600 and NEMA P600.
❄ Not available on larger sizes 6…9.
‡ For Bolted and 1 N.O.
§ For Unilock 1 N.C.
♣ For Enclosure Type 1.
➢ For Enclosure Types 7 & 9.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Pilot Device Accessories

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

	Description	Enclosure Type	NEMA Size	Cat. No.
	**Selector Switch Kits**			
	OFF-ON/HAND-OFF-AUTO∗❄	1 (Lift-off)	00…2	**599-SSL**
				599-SS2L
	HAND-OFF-AUTO	1, 3R/4/12	0…5	**599-SS09HJ**
		4, 4X (stainless steel and non-metallic)		**599-SS09HS**
	OFF-ON	1, 3R/4/12		**599-SS09OJ**
		4, 4X (stainless steel and non-metallic)		599-SS09OS
	FOR-OFF-REV	1, 3R/4/12		599-SS09RJ
		4, 4X (stainless steel and non-metallic)		599-SS09RS
	TEST-OFF-AUTO (spring return from TEST)	1, 3R/4/12		599-SS09TJ
		4, 4X (stainless steel and non-metallic)		599-SS09TS
	FOR-OFF-REV (Unilock)	3R, 7 & 9	0…2	1481-N48
	OFF-ON (Unilock)			1481-N54
	HAND-OFF-AUTO (Unilock)			1481-N55
	OFF-ON (Unilock)		3…5	1481-N59
	HAND-OFF-AUTO (Unilock)			1481-N60
	FOR-OFF-REV (Unilock)			1481-N62
	**Push Button Kits**			
	START-STOP∗❄	1 (Lift-off)	00…2	**599-PBL**
	START-STOP	1, 3R/4/12	0…5	**599-PB09SJ**
		4, 4X (stainless steel and non-metallic)		**599-PB09SS**
	FOR-REV-STOP	1, 3R/4/12		**599-PB09RJ**
		4, 4X (stainless steel and non-metallic)		599-PB09RS
	HIGH-LOW-STOP	1, 3R/4/12		599-PB09WJ
		4, 4X (stainless steel and non-metallic)		599-PB09WS
	START-STOP (Unilock)	7 & 9	0…2	1481-N53
			3…5	1481-N58
	START-STOP (bolted)		0…9	Use **800H-DPH16AAXX64**

∗ Must order mounting bracket (**Cat. No. 599-BRL**) separately.

❄ For Type 1, lift-off, non-combination starters only (Bulletins 500, 500L, 505, and 509).

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Pilot Device Accessories, continued

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V





Description		Enclosure Type	NEMA Size	Cat. No.
Pilot Light Kits‡ 120V		1, 3R/4/12	0…5	**599-PL09DJ**
120V		4, 4X (stainless steel and non-metallic)		**599-PL09DS**
240V		1, 3R/4/12		**599-PL09AJ**
240V		4, 4X (stainless steel and non-metallic)		599-PL09AS
480V		1, 3R/4/12		**599-PL09BJ**
480V		4, 4X (stainless steel and non-metallic)		599-PL09BS
600V		1, 3R/4/12		599-PL09CJ
600V		4, 4X (stainless steel and non-metallic)		599-PL09CS
ON✶❄♣	120V AC	1 (lift-off)	00…2	599-PLLD
	240V AC			599-PLLA
Optional Pilot Light Lens Covers Red		All	0…5	**800T-N26R**
Green				**800T-N26G**
Amber				**800T-N26A**
Blue				**800T-N26B**
Clear				**800T-N26C**
White				**800T-N26W**
ON (Unilock 120V) — Red❄§		3R, 7 & 9 (Unilock)	0…5	1481-N56A120R
ON (Unilock 120V) — Green❄§				1481-N56A120G
Push-to-Test Pilot Light Kits‡ 120V		1, 3R/4/12	0…5	599-PT09DJ
120V		4, 4X (stainless steel and non-metallic)		599-PT09DS
240V		1, 3R/4/12		**599-PT09AJ**
240V		4, 4X (stainless steel and non-metallic)		599-PT09AS
480V		1, 3R/4/12		599-PT09BJ
480V		4, 4X (stainless steel and non-metallic)		599-PT09BS
600V		1, 3R/4/12		599-PT09CJ
600V		4, 4X (stainless steel and non-metallic)		599-PT09CS
Optional Push-to-Test Pilot Light Lens Covers Red		All	0…5	**800T-N40**
Green				**800T-N41**
Amber				**800T-N42**
Blue				**800T-N43**
Clear				**800T-N45**
White				**800T-N44**
Mounting bracket❄		All lift-off pilot devices, Type 1	00…2	**599-BRL**

✶ Must order mounting bracket (**Cat. No. 599-BRL**) separately.
❄ For Type 1, lift-off, non-combination starters only (Bulletins 500, 500L, 505, and 509).
‡ Pilot light kits and push-to-test pilot light kits include one green and one red cover as standard.
§ An adapter (**Cat. No. 1481-N61**) is required for each pilot light added to Size 3, 4, and 5 Unilock enclosures.
♣ Supplied with red lens only.
Note: Bulletins 505 and 520 with two pilot lights are supplied in hinged enclosures, with or without control circuit transformers.

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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

Pilot Device Accessories, continued

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

Description		Enclosure Type	NEMA Size	Cat. No.
	ON ❄ (Unilock) — Red Lens (120V)	3R, 7 & 9 (Unilock)	0…5	1481-N56A120R
	ON ❄ (Unilock) — Green Lens (120V)			1481-N56A120G
	Transformers for pilot lights 240V, 60 Hz and 220V, 50 Hz∗		00…5	1481-NX1
	480V, 60 Hz and 440V, 50 Hz			1481-NX2
	600V, 60 Hz and 550V, 50 Hz			1481-NX3
	**Replacement Bulbs for all Pilot Lights** 120V coil voltage - incandescent Amber, green, red, or blue lens color	—	—	**800T-N169**
	120V coil voltage - LED Amber lens color	—	—	**800T-N320A**
	Green lens color	—	—	**800T-N320G**
	Red lens color	—	—	**800T-N320R**
	Blue lens color	—	—	**800T-N320B**
	240/480/600V coil voltage - incandescent Amber, green, red, or blue lens color	—	—	**800T-N65**
	240/480/600V coil voltage - LED Amber lens color	—	—	**800T-N318A**
	Green lens color	—	—	**800T-N318G**
	Red lens color	—	—	**800T-N318R**
	Blue lens color	—	—	**800T-N318B**
	Additional Pilot Devices Additional pilot devices	1, 3R/4/12	0…9	Use Bulletin 800T devices (See page 10-2)
	Additional pilot devices	4/4X, 4X	0…9	Use Bulletin 800H Type 4X devices (See page 10-2)
	Additional pilot devices (bolted)	3R, 7 & 9	0…9	Use Bulletin 800H Type 7 & 9 devices (See page 10-152)

∗ When the control voltage is other than 120V, 60 Hz or 110V, 50 Hz it is necessary to also use one of the following transformers.
❄ An adaptor (**Cat. No. 1481-N61**) is required for each pilot light added to size 3, 4, and 5 Unilock enclosures.

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Enclosure Accessories

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

Description		Enclosure Type	NEMA Size	Cat. No.
	**Non-metallic Conduit Connectors** 1/2 in. (12.7 mm)	4, 4X (stainless steel and non-metallic)	0…1	**1490-N1**
	3/4 in. (19 mm)			**1490-N9**
	1 in. (24.5 mm)			**1490-N10**
	1-1/4 in. (31.75 mm)		2	**1490-N11**
	1-1/2 in. (38.1 mm)		3	**1490-N5**
	2 in. (50.8 mm)		4	1490-N6
	2-1/2 in. (63.5 mm)			1490-N7
	3 in. (76.2 mm)		5	1490-N8
	**Grounding Adapters** 1/2 in. (12.7 mm), #14…10 AWG	4, 4X (stainless steel and non-metallic)❄	0…1	1490-N19
	3/4 in. (19 mm), #14…8 AWG			**1490-N20**
	1 in. (24.5 mm), #14…8 AWG			**1490-N21**
	1-1/4 in. (31.75 mm), #14…4 AWG		2	1490-N22
	1-1/2 in. (38.1 mm), #8…1/0 AWG		3	1490-N23
	2 in. (50.8 mm), #8…1/0 AWG		4	1490-N24
	2-1/2 in. (63.5 mm), #6…2/0 AWG			1490-N25
	3 in. (76.2 mm), #6…4/0 AWG		5	1490-N26
	**Handle Kits with Universal Link for Switch and Breaker** Painted Metal 5-1/2 in. base	1, 3R, 3R/4/12∗	0…4	**1494F-M1**
	Painted Metal 7-1/2 in. base		5	**1494F-M2**
	Stainless Steel 5-1/2 in. base	4/4X (stainless steel)	0…4	**1494F-S1**
	Stainless Steel 7-1/2 in. base		5	**1494F-S2**
	Nonmetallic Handle 5-1/2 in. base	1, 3R, 3R/4/12, 4/4X (non-metallic)	0…4	**1494F-P1**
	**Hole Plugs** 30.5 mm hole plug for pilot devices	All	0…5	**800T-N1**
	19.5 mm hole plug for resets and door safety hardware			**598-N1**

∗ For combination starters only.

❄ Bulletin 1490 grounding adapters are available for use with these conduit hubs. These bushings provide a convenient method of connecting a ground wire to the conduit system. See conduit connector (hub) above proper size.

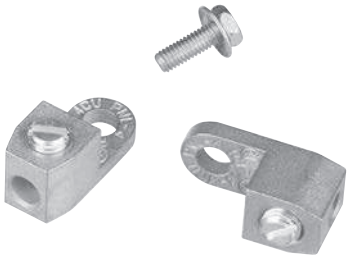
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Accessories — Field Installed

NEMA Non-Combination Contactors/Starters and Combination Contactors/Starters

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512M, 512V, 513, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

Enclosure Accessories, continued

Description		Enclosure Type	NEMA Size	Cat. No.
	**Door Safety Hardware Kits** **Enclosure Size (H x W x D)** 27 x 10 x 8.2 in.	3R/4/12❄	0…2	**1494F-V1**
	30 x 20 x 9.7 in.		0…4	**1494F-V2**
	50 x 22 x 11.1 in.		3…4	**1494F-V3**
	56 x 30 x 14 in.		5	**1494F-V4**
	Breather Bulletin 505, 507, 509, and 513 — Unilock and bolted Class I, Groups C and D Class II, Groups E, F and G♣‡		0…5	1401-N1
	Drain Bulletin 505, 507, 509, and 513 — Unilock and bolted Class I, Groups C and D Class II, Groups E, F and G♣‡			1401-N2
	Breather Drain Combination§ Bulletin 505, 507, 509, and 513 — Unilock and bolted Class I, Groups C and D Class II, Groups E, F and G♣‡			1401-N3
	**Ground Lug Kits**		0…2	**599-GR1**
			3…5	599-GR2
			6…7	599-GR3

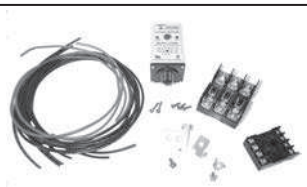
Description of Accessory Kit	Size 0…2 Cat. No.	Size 3 Cat. No.	Size 4 Cat. No.	Size 5 Cat. No.	Size 6…9 Cat. No.
Reset Buttons (Each Kit Contains One Reset)					
Type 1, 3R/12 Bulletin 506…507 — One Kit Required Per Starter	**1493-N21**	**1493-N21**	1493-N31⌘	—	—
Bulletin 512…513 — One Kit Required Per Starter				**1493-N21**➢	—
Bulletin 522…523 — Two Kits Required Per Starter				—	—
Type 4/4X	—	—	1493-N32	—	—
Pneumatic Timer Mounting Plate Adapter (For Mtg. Bulletin 849A Timer) Bulletin 509 and 513 — Unilock♣	1401-N4	—	—	—	—

❄ Converts combination starter enclosure **F** to enclosure code **D** or **J** with door safety hardware.
‡ Standard on bolted Type 3R, 7 & 9.
§ The breather-drain combination can be in enclosure top as a breather or bottom as a drain. Specify (2) when both functions are required.
♣ Unilock suitable for Types 7 & 9 or Types 3R, 7 & 9 with the addition of a drain or a breather and drain.
➢ For Bulletins 512…513 only.
⌘ Also use for NEMA sizes 0…2 lift-off enclosure.

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System Accessories

For use on Bulletins 500, 500F, 500L, 500LP, 502, 502L, 503, 503L, 505, 505V, 506, 506X, 507, 507X, 509, 512, 512H, 512M, 512V, 513, 513H, 513M, 513V, 520, 520V, 522, 523, 530, 532, 533, 540, 542, 543, 570, 572, 573, 1242, 1243, 1272, 1273, 1282, 1283, 1232X, 1232V, 1233X, and 1233V

Description		Enclosure Type	NEMA Size	Cat. No.
	**Power Monitor Kit**∗❄ 3-phase, 240V AC — (Time Mark Model A258)	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	599-PM1
	3-phase, 480V AC — (Time Mark Model A258B)			599-PM2
	**Terminal Block**∗ Panel Mount (6 point)‡	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**1492-HC6**
	**Timing Relays**∗ 120V AC, ON-Delay — 8-pin socket (Cat. No. 700-HN125) required 0.1…10 s	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HT12AU120**
	120V AC, ON-Delay — 8-pin socket (Cat. No. 700-HN125) required 1.0…180 s			**700-HT12BU120**
	120V AC, OFF-Delay — 11-pin socket (Cat. No. 700-HN126) required 0.1…10 s	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HT22AU120**
	120V AC, OFF-Delay — 11-pin socket (Cat. No. 700-HN126) required 1.0…180 s	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HT22BU120**
	**Control Relays**∗ DPDT 2-pole 2 Form C Single AgNi Contact	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HA32A1**
	3PDT 3-pole 3 Form C Single AgNi Contact	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HA33A1**
	**Relay Sockets**∗ 8-pin socket	1 (hinged), 3R, 3R/4/12, 4/4X (stainless)	0…7	**700-HN125**
	11-pin socket		0…7	**700-HN126**

∗ For combination starters only.
❄ 3-phase power monitor kit includes the time mark phase monitor and socket.
‡ Up to two 6-point terminal blocks may be added to each combination starter.

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NEMA Specifications

NEMA Non-Combination and Combination Contactors/Starters

Electrical Ratings

NEMA Size	Load Voltage [V]	Continuous Current Rating [A]	Service Limit Current Rating [A]∗	Maximum Hp Rating (Non-plugging and non-jogging duty)		Maximum Hp Rating (Plugging and jogging duty)❄		Transformer Primary Switching kVa Rating (Inrush Current ≤ 20 times Continuous Current)		Transformer Primary Switching kVa Rating (Inrush Current = 20 to 40 times Continuous Current)		Capacitor Switching kVAR‡	Maximum Circuit Closing Inrush Current [A] Peak Including Offset
				1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	3Ø	3Ø
00	115	9	11	1/3	—	1/4	—	—	—	—	—	—	87
	200			—	1-1/2	—	1	—	—	—	—	—	
	230			1	1-1/2	1/2	1	—	—	—	—	—	
	380			—	1-1/2	—	1	—	—	—	—	—	
	460			—	2	—	1-1/2	—	—	—	—	—	
	575			—	2	—	1-1/2	—	—	—	—	—	
0	115	18	21	1	—	1/2	—	0.6	—	0.3	—	—	140
	200			—	3	—	1-1/2	—	1.8	—	0.9	—	
	230			2	3	1	1-1/2	1.2	2.1	0.6	1	—	
	380			—	5	—	1-1/2	—	—	—	—	—	
	460			—	5	—	2	2.4	4.2	1.2	2.1	—	
	575			—	5	—	2	3	5.2	1.5	2.6	—	
1	115	27	32	2	—	1	—	1.2	—	0.6	—	—	288
	200			—	7-1/2	—	3	—	3.6	—	1.8	—	
	230			3	7-1/2	2	3	2.4	4.3	1.2	2.1	6	
	380			—	10	—	5	—	—	—	—	—	
	460			—	10	—	5	4.9	8.5	2.5	4.3	13.5	
	575			—	10	—	5	6.2	11	3.1	5.3	17	
1P	115	36	42	3	—	1-1/2	—	—	—	—	—	—	—
	230			5	—	3	—	—	—	—	—	—	—
2	115	45	52	3	—	2	—	2.1	—	1	—	—	483
	200			—	10	—	7-1/2	—	6.3	—	3.1	—	
	230			7-1/2	15	5	10	4.1	7.2	2.1	3.6	12	
	380			—	25	—	15	—	—	—	—	—	
	460			—	25	—	15	8.3	14	4.2	7.2	25	
	575			—	25	—	15	10	18	5.2	8.9	31	
3	115	90	104	7-1/2	—	7-1/2	—	4.1	—	2	—	—	947
	200			—	25	—	15	—	12	—	6.1	—	
	230			15	30	15	20	8.1	14	4.1	7.0	27	
	380			—	50	—	30	—	—	—	—	—	
	460			—	50	—	30	16	28	8.1	14	53	
	575			—	50	—	30	20	35	10	18	67	
4	115	135	156	—	—	—	—	6.8	—	3.4	—	—	1581
	200			—	40	—	25	—	20	—	10	—	
	230			—	50	—	30	14	23	6.8	12	40	
	380			—	75	—	50	—	—	—	—	—	
	460			—	100	—	60	27	47	14	23	80	
	575			—	100	—	60	34	59	17	29	100	
5	115	270	311	—	—	—	—	14	—	6.8	—	—	3163
	200			—	75	—	60	—	41	—	20	—	
	230			—	100	—	75	27	47	14	24	80	
	380			—	150	—	125	—	—	—	—	—	
	460			—	200	—	150	54	94	27	47	160	
	575			—	200	—	150	68	117	34	59	200	
6	115	540	621	—	—	—	—	27	—	14	—	—	6326
	200			—	150	—	125	—	81	—	41	—	
	230			—	200	—	150	54	94	27	47	160	
	380			—	300	—	250	—	—	—	—	—	
	460			—	400	—	300	108	188	54	94	320	
	575			—	400	—	300	135	234	68	117	400	
7	230	810	932	—	300	—	—	—	—	—	—	240	9470
	460			—	600	—	—	—	—	—	—	480	
	575			—	600	—	—	—	—	—	—	600	
8	230	1215	1400	—	450	—	—	—	—	—	—	360	14205
	460			—	900	—	—	—	—	—	—	720	
	575			—	900	—	—	—	—	—	—	900	
9	230	2250	2590	—	800	—	—	—	—	—	—	665	25380
	460			—	1600	—	—	—	—	—	—	1325	
	575			—	1600	—	—	—	—	—	—	1670	

∗ **Service-Limit Current Ratings —** The service-limit current ratings shown represent the maximum rms current, in amperes, which the controller shall be permitted to carry for protracted periods in normal service. At service-limit current ratings, temperature rises shall be permitted to exceed those obtained by testing the controller at its continuous current rating. The current rating of overload relays or the trip current of other motor protective devices used shall not exceed the service-limit current rating of the controller.

❄ **Plugging or Jogging Service —** The listed horsepower ratings are recommended for those applications requiring repeated interruption of stalled motor current encountered in rapid motor reversal in excess of five openings or closings per minute and shall not be more than ten in a ten minute period.

‡ If maximum available current (at capacitor terminals) is greater than 3000 A, please contact your local Rockwell Automation sales office, Allen-Bradley distributor, or NEMA ICS-2 Standard.

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Mechanical Ratings

NEMA Size	Mechanical Life (Millions of Operations)	Maximum Number of Auxiliary Contacts	Operating Time [ms]	
			Pick-up (Average)	Drop-out (Average)
00	10	5	20	16
0	10	8	21	16
1	10	8	22	14
2	10	8	27	13
3	5	8	37	20
4	5	8	27	20
5	5	8	25	18
6	5	4	25…79	10…22
7	—	8	88	40
8	—	8	88	45
9	—	8	118	84

Construction

NEMA Size	Wire Size for Power Terminals	Required Torque on Power Terminal Wire Clamps and Pressure Connectors or Lugs	Type of Power Terminal	Contact Material		Requirements for Sizing of Wire
				Power Contacts	Auxiliary Contacts	
00	#16…10 AWG	9 lb•in	Pressure terminals	Silver alloy	Silver	All wire rated 167 °F (75 °C) or higher must be sized per the local Electrical Code for 167°F (75 °C) wire.
0	#14…10 AWG	20 lb•in	Saddle or wire clamps			
1	#14…8 AWG	20 lb•in				
2	#14…4 AWG	45 lb•in	Pressure terminals			
3	#8…1/0 AWG	150 lb•in				
4	#6…4/0 AWG	275 lb•in				
5	#4 AWG…500 MCM	375 lb•in				
6	Lugs sold separately. See page 1-113.					
7						
8						
9	Direct bus connections only.					

Environmental

NEMA Size	Operating Position	Operating Temperature Range	Altitude	Corrosion-Resistance
00	Horizontal	Starters with eutectic alloy Overload relay –13…+149 °F (–25…+65 °C) Starters with SMP Overload relay –13…+131 °F (–25…+55 °C) (provided condensation is prevented)	10 000 feet before derating	All metal parts are treated for corrosion-resistance
0	Vertical			
1				
2				
3				
4				
5				
6	Horizontal			
7	Vertical			
8				
9				

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NEMA Specifications

NEMA Non-Combination and Combination Contactors/Starters

Short Circuit Rating

Combination contactors and starters with disconnect switch: Bulletin 502, 506, 512, 522E, 522F, 522G, and 1232X

Combination Contactors and Starters with Disconnect Switch: Bulletin 502, 506, 512, 522E, 522F, 522G, and 1232X			
NEMA Size	Fuse Type	Available Short Circuit Amperes RMS Symmetrical [A]	Maximum Voltage [V]
0…3	H, K	5000	600
4…5	H, K	10 000	
0…5	J, R	100 000	
6	L	18 000	
7	L	18 000	
Combination Lighting Contactors with Disconnect Switch: Bulletin 502L			
Lighting Contactor Rating [A]	Fuse Type	Available Short Circuit Amperes RMS Symmetrical [A]	Maximum Voltage [V]
20…100	H, K	5000	600
200…300	H, K	10 000	
20…300	J, R	100 000	
Combination Contactors and Starters with Circuit Breaker: Bulletin 503, 507, 513, 523E, 523F, 523G, and 1233X∗			
Enclosure Type	NEMA Size	Available Short Circuit Amperes RMS Symmetrical [A]	Maximum Voltage [V]
1, 3R, 3R/4/12, 4/4X (stainless)	0…5	65 000	480
Unilock 3R, 7, & 9	0…5	65 000	
Bolted 3R, 7, & 9	0…2	65 000	
1, 3R, 3R/4/12, 4/4X (stainless)	0…5	25 000	600
Unilock 3R, 7, & 9	0…3	5000	
Unilock 3R, 7, & 9	4…5	10 000	
Bolted 3R, 7, & 9	0…2	5000	
3R, 3R/4/12	6…7	10 000	
Combination Lighting Contactors with Circuit Breaker: Bulletin 503L∗			
Enclosure Type	Lighting Contactor Rating [A]	Available Short Circuit Amperes RMS Symmetrical [A]	Maximum Voltage [V]
1, 3R, 3R/4/12, 4/4X (stainless)	20…300	65 000	480
Unilock 3R, 7, & 9	20…300	65 000	
Bolted 3R, 7, & 9	20…300	65 000	
1, 3R, 3R/4/12, 4/4X (stainless)	20…300	25 000	600
Unilock 3R, 7, & 9	20…100	5000	
Unilock 3R, 7, & 9	20…300	10 000	
Bolted 3R, 7, & 9	20…300	5000	

∗ For the most up-to-date SCCRs, please see the on-line Industrial Controls catalog at www.ab.com/catalogs.

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AC Coil Data

NEMA Size	Operating Volt Amperes Burden [VA] 60 Hz Coils		Heat Dissipation [W]	Coil Operating Limits
	Inrush	Sealed		
00	70	8	2.7	85…110%
0	192	29	5.9	
1 & 1P	192	29	5.9	
2 (2…3 poles)	240	29	5.9	
2 (4…5 poles)	315	38	5.9	
3 (2…3 poles)	660	45	10	
3 (4…5 poles)	840	58	10	
4 (2…3 poles)	1225	69	14.8	
4 (4…5 poles)	1490	96	14.8	
5 (Series L)	1490	96	19.8	
6∗	4860	254	65.7	
6 (Interposing relay)	52.44	3.96	—	
7❄	Economized DC Coil		—	
7 (Interposing relay)	74.40	9.84	—	
8‡	Economized DC Coil		—	
8 (Interposing relay)	74.40	9.84	—	
9§	Economized DC Coil		—	
9 (Interposing relay)	144	19.20	—	

∗ This rating is for the size 6 contactor coil only. All starters are shipped with an interposing relay as standard.

❄ Size 7 starters are shipped with a 250 VA control circuit transformer and an interposing relay with a 120V coil. Voltage is then rectified to DC for the contactor coil.

‡ Size 8 starters are shipped with a 350 VA control circuit transformer and an interposing relay with a 120V coil. Voltage is then rectified to DC for the contactor coil.

§ Size 9 starters are shipped with a 750 VA control circuit transformer and an interposing relay with a 120V coil. Voltage is then rectified to DC for the contactor coil.

Auxiliary Contacts (NEMA A600 and P300) — Bulletin 595, 596

Maximum AC Contact Rating Per Pole						
AC Rating Designation	Maximum Voltage 60 or 50 Hz	[A]		Continuous Carrying Current [A]	[VA]	
		Make	Break		Make	Break
A600	120	60	6	10	7200	720
	240	30	3	10	7200	720
	480	15	1.5	10	7200	720
	600	12	1.2	10	7200	720

Maximum DC Contact Rating Per Pole for 595, 596 Auxiliary Contacts (Maximum Continuous Carrying Current is 5 A)			
DC Rating Designation	125V DC	250V DC	600V DC
P300	0.55 A	0.55 A (Requires 2 Contacts in Series)	—
	1.1 A (Requires 2 Contacts in Series)		

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