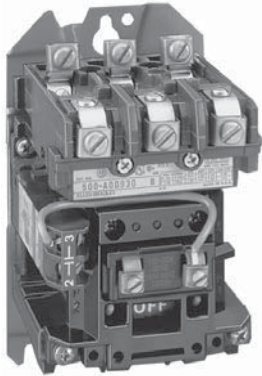


NEMA Top-Wired AC Contactors

Product Overview/Cat. No. Explanation

1



*Size 0, 3-Pole,
Open Type without
Enclosure
Top Wiring Construction*

Bulletin 500 Open Type Top-Wired Contactor

- All power connections are at the top of the contactor for wiring convenience
- Contactor can be field wired for single- or three-phase applications

NEMA sizes 0...4 (open type)

- Available as components or a modular kit for faster delivery
- Product selection can be done via two options:
 - Ordering a complete kit
 - Ordering individual components
- Top-wired contactor includes a 120V AC coil, (1) N.O. auxiliary contact, top-wiring kit, and load-side terminal shield, as standard

NEMA sizes 00, 5...9 (open type)

- 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
 IEEE 45
 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 (LR11924)

Catalog Number Explanation

Example Cat. No.

500 – **B** **A** **D** – **930** – **1**
a *b* *c* *d* *e* *f*

a

Bulletin No.	
Bulletin No.	Description
500	Top-wired contactor
500DC	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)
E	Type 7 & 9 bolted
H	Type 3R, 7 & 9 bolted
J	Type 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

Number of Poles	
Code	Voltage Description
930	Three Power Poles and (1) N.O. Auxiliary Contact
940	Four Power Poles and (1) N.O. Auxiliary Contact
950	Five Power Poles and (1) N.O. Auxiliary Contact

f

Factory Installed Modifications/Options	
For detailed information, see Modifications on page 1-107.	

or

Options	
Code	Description
17	Surge Suppressor for 120 or 240V AC Coil
90	(1) N.O. Auxiliary Contact*
91	(1) N.C. Auxiliary Contact*

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

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		
				1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	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.



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

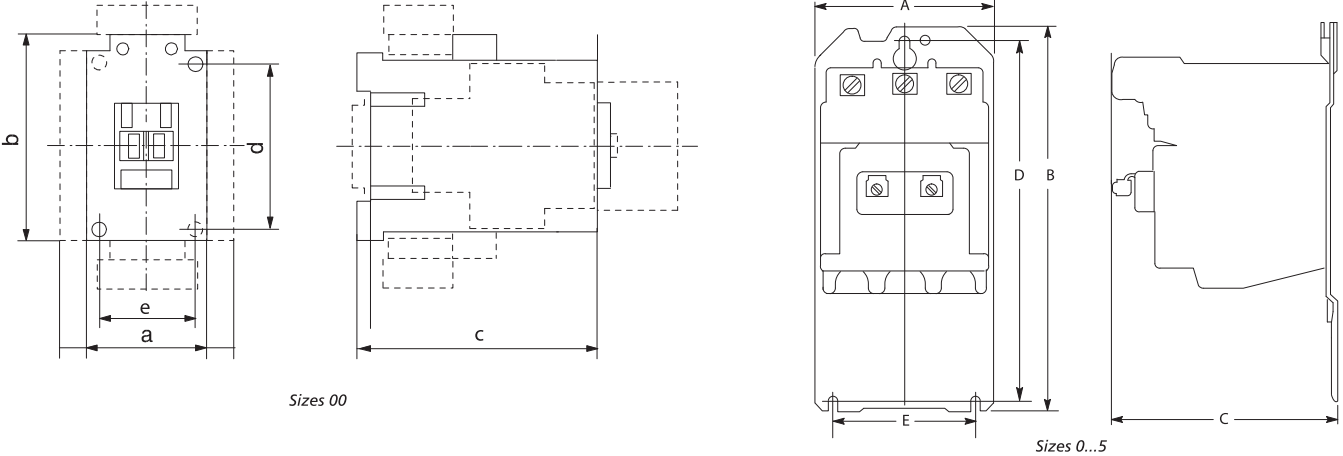
NEMA Size	Wire Size for Power Terminals	Required Torque on Power Terminal Wire Clamps and Pressure Connectors or Lugs	Type of Power Terminal	Contact Material		Requirements for Sizing of Wire		
				Power Contacts	Auxiliary Contacts			
00	#16...10 AWG	9 lb•in	Pressure terminals	Silver alloy	Silver	All 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	Horizontal			
6				
7				
8				
9				

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

Open Type without Enclosure for Bulletin 500 and 500F Contactors — NEMA sizes 0...4



NEMA Size	Number of Switching Poles	Dimensions in Inches (Millimeters)					Approximate Shipping Weight [lb (kg)]
		A Width	B Height	C Depth	D	E	
0...1	2...3	3-9/16 (90.5)	7-5/8 (193)	4-15/32 (113)	7-1/16 (180)	2-3/4 (70)	3 (1.4)
	4	4-3/8 (111)					3-1/2 (1.6)
	5	4-15/16 (125)					4-3/4 (2.2)
2	2...3	3-15/16 (100)	9-25/32 (248)	4-23/32 (120)	9-1/4 (235)	3-5/32 (80)	4 (1.8)
	4	4-31/32 (126)					4-3/4 (2.2)
	5	5-1/2 (140)					6-1/4 (2.8)
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	8-13/16 (223.8)					18 (8)
4	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	10-7/16 (265.1)					28.5 (13)

* For Feed-Through Wiring this dimension is 11-11/16 in. (297 mm).