



Bulletin 500F Contactor Installation

(Cat 500F-AOD930; 500F-BOD930; 500F-COD930; 500F-DOD930; 500F-EOD930)

WARNING
AVERTISSEMENT
WARNUNG

To prevent electrical shock, disconnect from power source before installing or servicing. Install in suitable enclosure. Keep free from contaminants.

Avant le montage et la mise en service, couper l'alimentation secteur pour éviter toute décharge. Prévoir une mise en coffret ou armoire appropriée. Protéger le produit contre les environnements agressifs.

Desconéctese de la corriente eléctrica, antes de la instalación o del servicio, a fin de impedir sacudidas eléctricas. Instálo en una caja apropiada. Manténgalo libre de contaminantes.

For all Catalog Numbers:

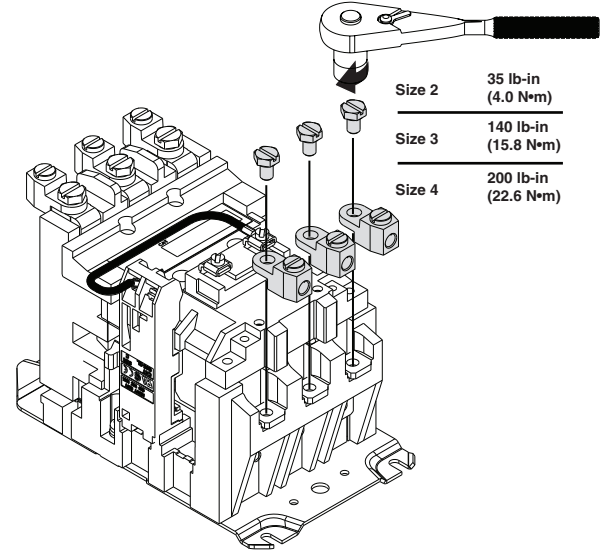
Control Connections Wire Range: AWG 18 -12

Control Connections Tightening Torque: 12 lb-in (1.4 N•m)

Power Wires and Tightening Torques

Catalog Number	Contactor NEMA Size	Wire Range (AWG)	Tightening Torque lb-in (N•m)		
			Lug to Terminal	Wire in Lug	Overload Relay to Contactor
500F-AOD930	0	14 – 8	-	20 (2.3)	23 (2.3)
500F-BOD930	1	14 – 8	-	20 (2.3)	23 (2.3)
500F-COD930	2	14 – 4	35 (4.0)	45 (5.1)	35 (4.0)
500F-DOD930	3	8 – 1/0	140 (15.8)	150 (17.0)	140 (15.8)
500F-EOD930	4	6 – 4/0	200 (22.6)	275 (31.1)	200 (22.6)

NOTE: Use 60° / 75° C Copper Wire Only.



NOTE: For NEMA Sizes 0, 1 and 2, if space is critical, the overload relay mounting plate can be detached from the contactor mounting plate by removing the (2) #8-32 screws.

Short Circuit Current Ratings

Standard Fault Short Circuit Ratings

Contactor/Starter (notes a & b)	NEMA Sizes	Max. Voltage (V)	SCCR (kA)
500-*/500F-*/509-*	0, 1, 2 & 3	240 1Ø, 600 3Ø	5
500-E*/500F-E*/509-E*	4	600 3Ø	10

High Fault Short Circuit Ratings

Contactors and Starters Protected by Fuses

Contactor/Starter (note b)	NEMA Size	Max. Voltage (V) (3Ø unless noted)	Max. Fuse Rating		SCCR (kA)
			Class R	Class J	
500-A*/500F-A*/509-A*	0	240 1Ø & 3Ø	30	30	100
			600	30	30
500-B*/500F-B*/509-B*	1	240 1Ø & 3Ø	60	100	100
			600	30	50
500-C*/500F-C*/509-C*	2	240 1Ø & 3Ø	100	200	100
			600	60	100
500-D*/500F-D*/509-D*	3	240	200	350	100
			600	100	200
500-E*/500F-E*/509-E*	4	240	300	500	100
			600	200	400

Contactors and Starters Protected by Inverse-Time Circuit Breakers

Contactor/Starter (note b)	NEMA Size	Max. Voltage (V) (3Ø unless noted)	Max. A-B Bul. 140U Circuit Breaker (note c) (Starters Only)	SCCR (kA)	Max. Cutter-Hammer FDB/LFD Circuit Breaker / Current Limiter Combination	SCCR (kA)	
500-A*/500F-A*/509-A*	0 (note d)	240	140U-H_C3-C40	25	FDB 3025/LFD 3070R	100 (1Ø & 3Ø)	
			140U-H_C3-C40	25	FDB 3025/LFD 3070R	100	
			140U-H_C3-C20	18			
500-B*/500F-B*/509-B*	1	240	140U-H_C3-C40	25	FDB 3050/LFD 3070R	100 (1Ø & 3Ø)	
			140U-H_C3-C40	25	FDB 3035/LFD 3070R	100	
			140U-H_C3-C20	18			
500-C*/500F-C*/509-C*	2	480	140U-H_C3-C70	25	FDB 3100/LFD 3150R	100 (240V Max)	
			140U-H_C3-C50	18			
			240	140U-H_C3-D12	25	FDB 3150/LFD 3150R	100
500-D*/500F-D*/509-D*	3	480	140U-H_C3-D12	25	FDB 3125/LFD 3150R	100	
			140U-H_C3-D10	18	FDB 3100/LFD 3150R	100	
			480	140U-H_C3-D12	25	FDB 3150/LFD 3150R	100
500-E*/500F-E*/509-E*	4	600	140U-H_C3-D12	18	FDB 3150/LFD 3150R	100	
			480	140U-J_D3-D20	25		
			600	140U-J_D3-D17	18		

High Fault Short Circuit Ratings

Contactors and Starters Protected by Instantaneous-Trip Circuit Breakers

Contactor/Starter (note b)	NEMA Size	Max. Voltage (V) (3Ø unless noted)	Max. A-B Bul. 140M Circuit Breaker	SCCR (kA)
500-A*/500F-A*/509-A*	0	480	140M-I8P-C15	42
		600	140M-I8P-C15	25
500-B*/500F-B*/509-B*	1	480	140M-I8P-C30	42
		600	140M-I8P-C30	25
500-C*/500F-C*/509-C*	2	240	140M-I8P-D10	42
		480	140M-I8P-C50	42
500-D*/500F-D*/509-D*	3	600	140M-I8P-C50	25
		240	140M-I8P-D15	65
500-E*/500F-E*/509-E*	4	480	140M-I8P-D10	65
		600	140M-I8P-D15	65

Specific Notes from SCCR Tables

- a) ** Includes suffixes A*, B*, C* & D*. Refer to note b.
- b) * Includes all contactor variations following the Size letter, and starter variations with eutectic or E1 Plus overload relays (except .2 - 1 FLA range)
- c) Number after "H" or "J" can be 2, 3, 6 or 1
- d) For Size 0, combinations with 140U-* circuit breakers include starters with eutectic overloads (not E1 Plus)

General Notes for Short Circuit Current Rating (SCCR) Information

- 1) The ratings shown are in accordance with UL 508 and CSA 22.2 No. 14
- 2) The devices and ratings shown are those most commonly needed; additional ratings may be available
- 3) Additional limitations may apply. Refer to applicable national and local electrical codes
- 4) The SCCR values listed are kA (1000's amperes) RMS symmetrical

Renewal Parts and Accessory Kits

Renewal Contact Kit for Power Poles (One Pole Per Part No.)

Size 0	Part No. 40410-331-51
Size 1	Part No. 40410-331-52
Size 2	Part No. 40420-322-51
Size 3	Part No. 40430-300-51
Size 4.....	Part No. 40440-300-51

Operating Coil.....(Specify number and rating on coil label)

Auxiliary Contacts

Single circuit (1 N.O.).....	Catalog No. 595-A
Single circuit (1 N.C.).....	Catalog No. 595-B
Single circuit (1 N.C. Late Break)	Catalog No. 595-BL
Double circuit (2 N.O.).....	Catalog No. 595-AA
Double circuit (2 N.C.).....	Catalog No. 595-BB
Double circuit (1 N.O.-1 N.C.).....	Catalog No. 595-AB

Power Pole Adder Kit

Sizes 0 and 1.....	Catalog No. 599-P01A
Size 2.....	Catalog No. 599-P2A
Size 3.....	Catalog No. 599-P3A
Size 4.....	Catalog No. 599-P4A

NOTE: Contactor sizes 0, 1 and 2 with 50 Hz coils and all size 3 and 4 contactors require a special coil (coil number ending with the letter "C") whenever one or two power poles are added.

Control Circuit Fusing Kit

Single Pole, Rejection Fuse Only.....	Catalog No. 599-FR04
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NOTE: When contactor-mounted, each kit occupies the space of one double circuit auxiliary.

Surge Suppressor

12-120 Volt AC	Catalog No. 599-K04
240 Volt AC	Catalog No. 599-KA04

Tie Point Terminal

Sizes 0, 1 and 2.....	Catalog No. 599-TP02
Sizes 3 and 4.....	Catalog No. 599-TP34

Control Terminal Kit

Sizes 0, 1 and 2	Catalog No. 599-CT02
Size 3	Catalog No. 599-CT3
Size 4	Catalog No. 599-CT4

Load Terminal Shield for Top Wired Contactor

Sizes 0, 1 and 2.....	Catalog No. 599-TS02
Sizes 3 and 4.....	Catalog No. 599-TS34

Top Wiring Terminal Kit (3 terminals)

Sizes 0 and 1	Catalog No. 599-TW01
Size 2.....	Catalog No. 599-TW2
Size 3.....	Catalog No. 599-TW3
Size 4.....	Catalog No. 599-TW4

Timer Attachment Kit

Left Hand On Delay.....	Catalog No. 596-TL32
Left Hand Off Delay.....	Catalog No. 596-TL33
Right Hand On Delay.....	Catalog No. 596-TR32
Right Hand Off Delay.....	Catalog No. 596-TR33

NOTE: For size 2 contactors a special coil (coil number ending with the letter "C") is required with any timer.

When ordering specify catalog number and series letter on the device.

Note: additional control circuit overcurrent protection may be required. refer to the National Electrical Code.

The current rating of the control circuit conductors furnished with this device is 15 amperes for sizes 0 through 3 and 20 amperes for size 4.

Maintain this equipment in accordance with guidelines of NFPA-70b, Electrical Equipment Maintenance.