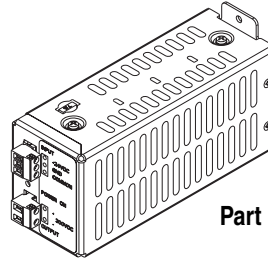




## Installation Instructions

### PowerFlex 700S Auxiliary Control Power Supply 240V, 400V, 480V, 600V & 690V PowerFlex 700S Drives



Part Number: 20-24V-AUX1

The PowerFlex 700S Auxiliary Control Power Supply is designed to provide power to a single drive's control circuitry in the event incoming supply power to the drive is removed or lost.

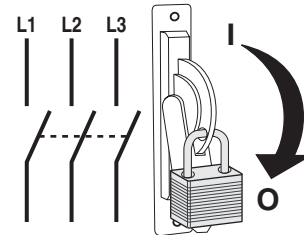
**Important:** The use a Class 2/SELV (Safety Extra-Low Voltage) isolated and ungrounded power supply as input power is recommended. This power source provides protection so that under nominal and single fault conditions, the voltage between conductors and between conductors and Functional Earth/Protective Earth does not exceed a safe value.

### Remove Power

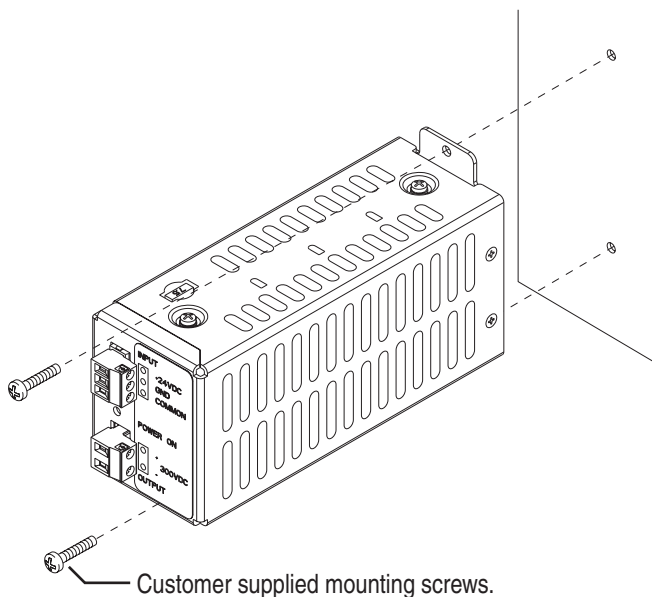
Ensure isolation of main supply from line inputs [R, S, T (L1, L2, L3)].



**ATTENTION:** To avoid an electric shock hazard, verify that the voltage on the bus capacitors has discharged before performing any work on the drive. Measure the DC bus voltage at the +DC & -DC terminals of the Power Terminal Block. The voltage must be zero.

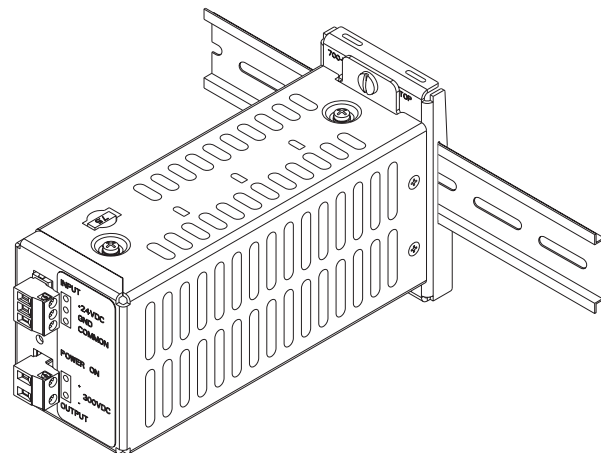


### Mounting Options



Customer supplied mounting screws.

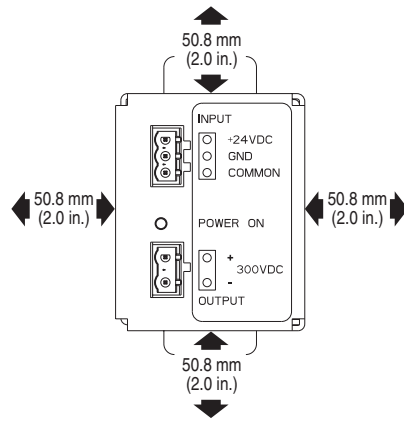
**Panel Mount**



**Optional 35mm DIN Rail Mount**

Requires a DIN Rail Adapter Kit (Cat. No. 700-DRA) purchased separately.

### Mounting Clearances



### Wiring

To meet CE installation requirements, the following wiring method must be followed.

**Input Wiring** – Inputs should be wired with two conductor twisted pair wire. If shielded wire is used, shields should not be connected.

**Output Wiring** – Outputs should be wired using one of the following options.

- A) Less than three meters of shielded two conductor wire with shield connected to ground at power supply end.
- B) Three meters or less of unshielded two conductor twisted pair wire with two turns through a 1321-M001 Common Mode Choke or equivalent. Locate choke near the power supply terminals.

#### Terminal Block Specifications

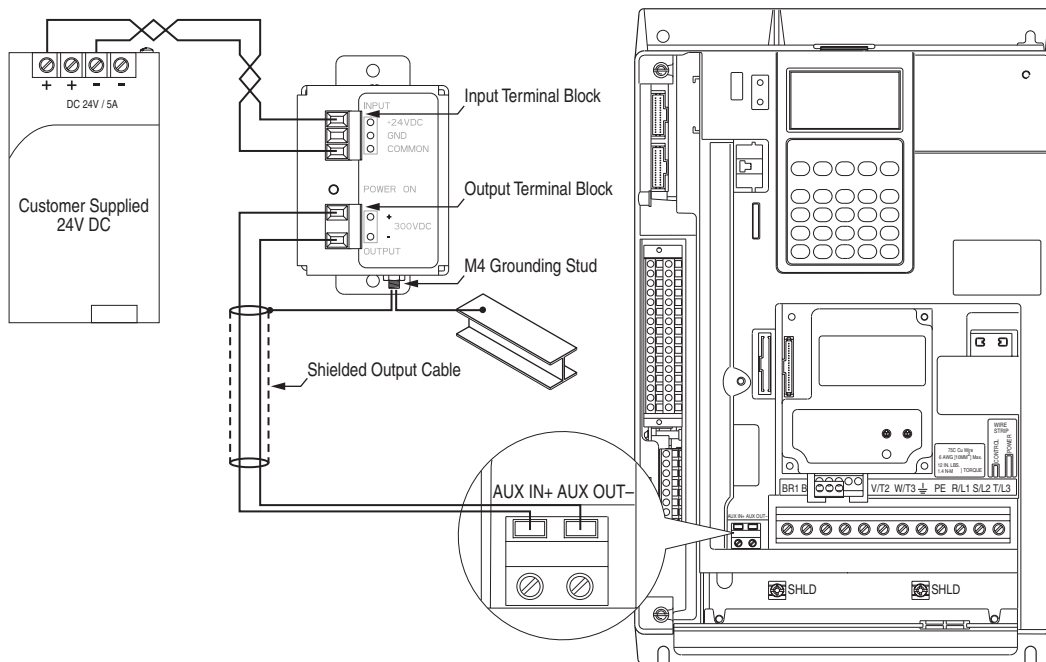
Name	Maximum Wire Size <sup>(1)</sup>	Minimum Wire Size <sup>(1)</sup>	Recommended Wire Size <sup>(2)</sup>	Torque
Input Terminal Block	3.5 mm <sup>2</sup> (12 AWG)	0.5 mm <sup>2</sup> (22 AWG)	1.5 mm <sup>2</sup> (16 AWG)	0.4-0.5 N-m (3.5-4.4 lb.-in.)
Output Terminal Block	3.5 mm <sup>2</sup> (12 AWG)	0.12 mm <sup>2</sup> (26 AWG)	0.2 mm <sup>2</sup> (24 AWG)	

#### 300V DC Output Cabling Specifications

Category	Description
Insulation and Temperature Ratings	600V, 90°C
Maximum Cable Length <sup>(1)</sup>	3 meters (9.9 feet)

(1) See output wiring options above.

- (1) Maximum/minimum sizes that the terminal block will accept - these are not recommendations.
- (2) Recommended sizes of 600V, 90°C wire for full load rating.



PowerFlex 700S  
AUX Terminal Block

**Note:** Refer to the appropriate drive User Manual for location of the AUX Terminal Block.

## Programming

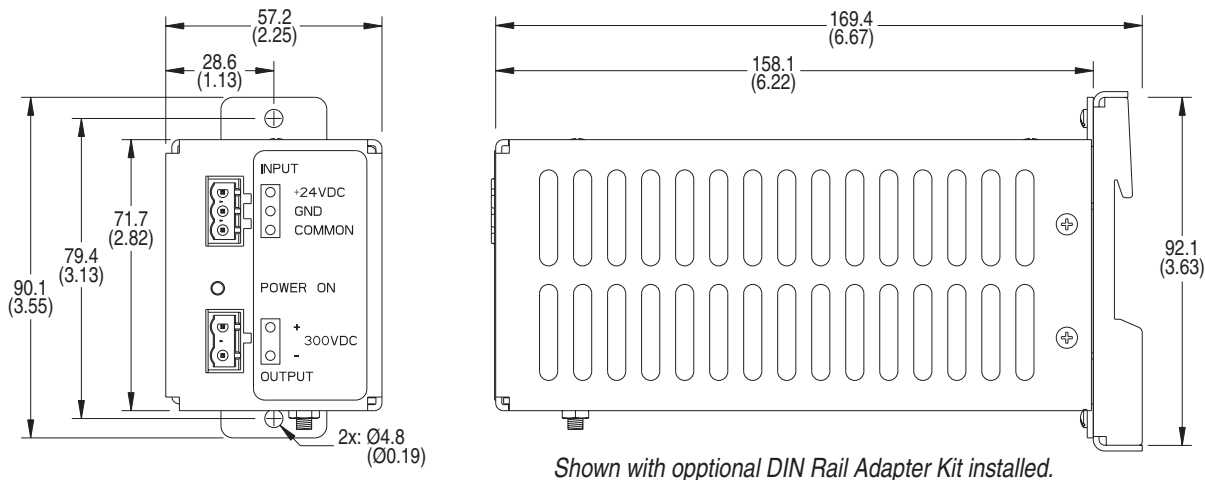
Set parameter 153 [Control Options], Bit 17 Aux Pwr Sply to “1” to enable operation.

## General Specifications

Category	Specification	
Electrical	Input: <sup>(1)</sup>	24 Volts +/-10% Isolated, 5 Amps Maximum (Full Load Current)
	Output:	300 Volts, 100 Watts Maximum, 0.33 Amps Maximum (Full Load Current)
	Fusing:	7.5 Amp ATO Mini Fuse
	Grounding:	Case is grounded through GND terminal on Input Terminal Block. Mount to grounded surface or ground via Grounding Stud. Use 0.2 mm <sup>2</sup> (24 AWG) wire for grounding stud connection.
	Power Dissipation:	20 Watts
Environment	Maximum Surrounding Air Temperature:	0-50 degrees C (32 to 122 degrees F)
	Storage Temperature:	-40 to 85 degrees C (-40 to 185 degrees F)
	Enclosure:	For UL installations, mount in a NEMA Type 1 enclosure
	Relative Humidity:	5 to 95% non-condensing
	Shock:	30G peak for 11ms duration (-/+1.0 ms)
	Vibration:	0.381 mm (0.015 in.) displacement, 2.5G peak
Other	LED Indicator:	Illuminated LED indicates unit is powered. Darkened LED indicates unit is fully discharged.
	Use:	Unit is designed to provide control power to one drive only.
	Compatible Drives:	PowerFlex 700S Drives: All voltage classes.

(1)The PowerFlex 700S Auxiliary Control Power Supply keeps the drive’s control power operating when drive power is removed. For 575/600 volt drives, where the Auxiliary Control Power Supply is required to *start* a drive power supply, the input voltage to the Auxiliary Control Power Supply must exceed 24 volts at the input terminals to ensure the drive power supply will start.

## Dimensions – Dimensions are in millimeters and (inches)





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