Power Supply Wiring

TIP

For more information on wiring, see Allen-Bradley Programmable Controller Grounding and Wiring Guidelines, publication 1770-4.1.

Refer to publication 1746-IN016, for chassis installation and grounding requirements.

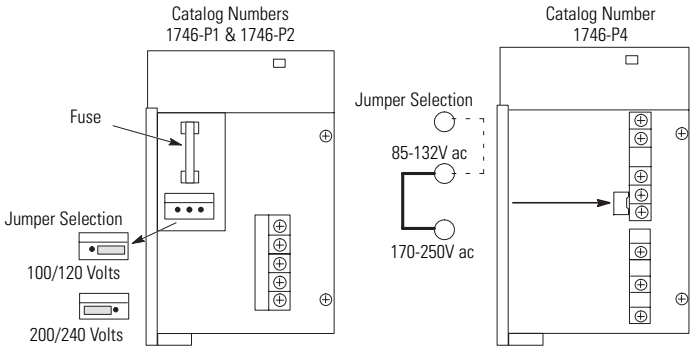
1. Place the input voltage jumper to match the input voltage. (This does not apply to the 1746-P3, 1746-P5, 1746-P6, and 1746-P7 power supplies, which do not have a jumper.)

ATTENTION

Set the input jumper before applying power. Hazardous voltage is present on exposed pins when power is applied; contact with the pin may cause injury to personnel.

WARNING

If you connect or disconnect the wiring to the terminal blocks or if you insert or remove the power supply while power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.



General Specifications (1746-P5, 1746-P6, and 1746-P7)

Attribute	Value			
	1746-P5	1746-P6	1746-P7	
Line voltage	90...146V dc	30...60V dc	10...30V dc[1]	
Typical line power requirement	85VA	100VA	12V dc input: 50VA	24V dc input: 75VA
Inrush current, max	20 A		20 A (required for turn-on)	
Internal current capacity	5 A at 5V dc 0.96 A at 24V dc		12V dc input: 2.0 A at 5V dc 0.46 A at 24V dc	24V dc input: 3.6 A at 5V dc 0.87 A at 24V dc
			See 1746-P7 current capacity chart on page 17.	
Fuse protection[2]	Fuse is soldered in place.			
24V dc user-power current capacity	200 mA		Not applicable	
24V dc user-power voltage range	18...30V dc			
Temperature, operating ambient	0...60 °C (32...140 °F) Current capacity is derated 5% above 55 °C (131 °F).			
Isolation[3]	1800V ac RMS for 1 s		600V ac RMS for 1 s	
CPU hold-up time[4]	20 ms (full load) 3000 ms (no load)	5 ms (full load) 1500 ms (no load)	12V dc input: 1.37 ms at 0V dc (full load) 895 ms at 0V dc (no load) 10 ms at 9V dc (full load) continuous at 9V dc (no load)	24V dc input: 40 ms at 0V dc (full load) 1860 ms at 0V dc (no load) 790 ms at 11V dc (full load) continuous at 11V dc (no load)
Certification (when product is marked)	UL Listed Industrial Control Equipment for Class 1, Division 2, Groups A, B, C, D Hazardous Locations			
	C-UL Listed Industrial Control Equipment for Class 1, Division 2, Groups A, B, C, D Hazardous Locations			
	CE[5] European Union 89/336/EEC EMC Directive, compliant with: EN 50082-2 Industrial Immunity EN50081-2 Industrial Emissions European Union 73/23/EEC LVD Directive, compliant with: EN61131-2 Programmable Controllers			
	C-Tick Australian Radiocommunications Act, compliant with: AS/NZS 2064 Industrial Emissions			

(1) See page 14 for information on power supply undervoltage operation.

(2) Power supply fuse is intended to guard against fire hazard due to short-circuit conditions. This fuse may not protect the supply from miswiring or excessive transient in the power line.

(3) Isolation is between input terminals and backplane.

(4) CPU hold-up time is for 0V unless specified. Hold-up time is dependent on power supply loading.

(5) See the Product Certification link at http://ab.com for Declarations of Conformity, Certificates, and other certification details.