Power Supply Specifications (1746-P1, -P2, -P3, and -P4)

Description:	**Specification: 1746-**			
	P1	**P2**	**P3**	**P4**
Line Voltage	85-132/170-265V ac, 47-63 Hz		19.2-28.8V dc	85-132/170-265V ac 47-63 Hz
Typical Line Power Requirement	135 VA	180 VA	90 VA	240 VA
Maximum Inrush Current	20A			45A
Internal Current Capacity	2A at 5V dc 0.46A at 24V dc	5A at 5V dc 0.96A at 24V dc	3.6A at 5V dc 0.87A at 24V dc	10.0A at 5V dc 2.88A at 24V dc(11)
Fuse Protection(1)	1746-F1 or equivalent(5) (6)	1746-F2 or equivalent(5) (8)	1746-F3 or equivalent(5) (9)	Fuse is soldered in place.
24V dc User Power Current Capacity	200 mA		Not Applicable	1A(1)
24V dc User Power Volt. Range	18-30V dc			20.4-27.6V dc
Max. User-supplied overcurrent protection(2)	15A		Not Applicable	15A
Ambient Operating Temperature	0°C to +60°C (+32°F to +140°F) Current capacity is derated 5% above +55°C.			0°C to +60°C (+32°F to +140°F) no derating
Isolation(3)	1800V ac RMS for 1 s		None(10)	2600V dc for 1 s
CPU Hold-up Time(4)	20 ms (full load) 3000 ms (no load)		5 ms (full load) 1000 ms (no load)	20 ms (full load) 3000 ms (no load)
Certification (when product is marked)	UL Listed Industrial Control Equipment for Class 1, Division 2, Groups A, B, C, D Hazardous Locations			UL Listed Industrial Control Equipment
	UL Listed Industrial Control Equipment for Class 1, Division 2, Groups A, B, C, D Hazardous Locations			CSA Certified Process Control Equipment for Class 1, Div 2, Groups A, B, C, D Hazardous Locations
	CE(7), European Union 89/336/EEC EMC Directive, compliant with: EN 50082-2 Industrial Immunity and EN50081-2 Industrial Emissions European Union 73/23/EEC LVD Directive, compliant with: EN61131-2 Programmable Controllers			
	C-Tick, Australian Radio Communications Act, compliant with: AS/NZS 2064 Industrial Emissions			

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

(2) Use time-delay type overcurrent protection in all ungrounded conductors.

(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) Fuse sizes specified are for end-devices only. Fuse size may need to be reduced depending on the size of circuit wiring.

(6) Equivalent fuses: 250V-3A fuse, nagasawa ULCS-61ML-3, or BUSSMAN AGC 3

(7) See the Product Certification link at www.ab.com for Declarations of Conformity, Certificates, and other certification details.

(8) Equivalent fuse: 250V-3A fuse, SANO SOC SD4, or BUSSMAN AGC 3

(9) Equivalent fuse: 125V-3A fuse, Nagasawa ULCS-61ML-5, or BUSSMAN AGC 5

(10) No isolation between input terminals and backplane. However, dielectric withstand between input terminals and chassis ground terminal is 600V ac RMS for 1 s.

(11) The combination of all output power (5 volt backplane, 24 volt backplane, and 24 volt user source) cannot exceed 70 watts.

Power Supply Specifications (1746-P5, -P6, and -P7)

Description:	**Specification: 1746-**			
	P5	**P6**	**P7**	
Line Voltage	90-146V dc	30-60V dc	10-30V dc[5]	
Typical Line Power Requirement	85 VA	100 VA	12V dc input: 50 VA	24V dc input: 75 VA
Maximum Inrush Current	20A		20A (required for turn-on)	
Internal Current Capacity	5A at 5V dc 0.96A at 24V dc		12V dc input: 2.0A at 5V dc 0.46A at 24V dc	24V dc input: 3.6A at 5V dc 0.87A at 24V dc
			See P7 current capacity chart.	
Fuse Protection[1]	Fuse is soldered in place.			
24V dc User Power Current Capacity	200 mA		Not Applicable	
24V dc User Power Voltage Range	18-30V dc			
Ambient Operating Temp.	0°C to +60°C (+32°F to +140°F) Current capacity is derated 5% above +55°C.			
Isolation[2]	1800V ac RMS for 1 s		600V ac RMS for 1 s	
CPU Hold-up Time[3]	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			
	UL Listed Industrial Control Equipment for Class 1, Division 2, Groups A, B, C, D Hazardous Locations			
	CE[4] 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) 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.

(2) Isolation is between input terminals and backplane.

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

(4) See the Product Certification link at www.ab.com for Declarations of Conformity, Certificates, and other certification details.

(5) See 3-16 for information on power supply under voltage operation.