

Allen-Bradley 1746 1747 Series Service Manual

1768-PA3

1. Description

The Allen-Bradley 1768-PA3 is a CompactLogix Power Supply. This Power Supply has an Input Voltage range of 85 - 265VAC or 108 -132VDC. It has an integrated Overcurrent protection of 15A. This power supply provides backplane current and energizes the modules connected the backplane. Technical specifications for 1768-PA3

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1768-PA3
Product	Line CompactLogix
Product	Type: Power Supply Module
Module	Type AC Power Supply Module
Input	Power 85...265V ac; 108...132V dc
Input	Frequency Range 47...63 Hz (85...265V ac)
Shipping	Weight 2 lbs.
Input	Power, Max 120 VA/120 W
Efficiency	75% Typical
Shipping	Dimensions 8X8X5 in.
Isolation	Voltage 30 Volts Continuous
Inrush	Current, Nom 25 A @ 85...132V ac 50 A @ 195...265V ac 25 A @ 108...132V dc
Inrush	Current, Max 50 A @ 85...132V ac 80 A @ 195...265V ac
Backplane	Current 1.4 Amps at 24 Volts
Power	Dissipation, Max 30 W
Power	Consumption 33.6 Watts
Internal	Overcurrent Protection Non-replaceable fuse is soldered in place
Recommended	External Overcurrent Protection 4...6 A @ 28.5...36.7 A2 S
Power	Dissipation 7.5 Watts
Enclosure	None (open-style)
UPC	1067598201561 Description
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Brand Allen-Bradley

Part Number/Catalog No. 1768-PA3

Product Line CompactLogix

Product Type: Power Supply Module

Module Type AC Power Supply Module

Input Power 85...265V ac; 108...132V dc

Input Frequency Range 47...63 Hz (85...265V ac)

Shipping Weight 2 lbs.

Input Power, Max 120 VA/120 W

Efficiency 75% Typical

Shipping Dimensions 8X8X5 in.

Isolation Voltage 30 Volts Continuous

Inrush Current, Nom 25 A @ 85...132V ac 50 A @ 195...265V ac 25 A @ 108...132V dc

Inrush Current, Max 50 A @ 85...132V ac 80 A @ 195...265V ac

Backplane Current 1.4 Amps at 24 Volts

Power Dissipation, Max 30 W

Power Consumption 33.6 Watts

Internal Overcurrent Protection Non-replaceable fuse is soldered in place

Recommended External Overcurrent Protection 4...6 A @ 28.5...36.7 A 2 S

Power Dissipation 7.5 Watts

Enclosure None (open-style)

UPC 10612598307569 Description

The Allen-Bradley 1768-PA3 is a CompactLogix power supply module. It is a dual-input power supply whose primary purpose is to provide power through the CompactLogix backplane. This power supply operates at 85 - 265VAC or 108 -132VDC. Before powering up the system, install a 1768 CompactLogix controller in the same bank as the power supply. To avoid issues, never install a 1769 power supply to a 1768 CompactLogix backplane.

The 1768-PA3 module has an open-type enclosure and it can be mounted using DIN rail or panel mount. LED status indicators let the user monitor the module's current state in real time. The 1768-PA3 can be from Series A or B and has a wiring category of II for the power ports. Its compatible wire sizes are 14 to 22 AWG stranded or solid copper wire rated at 167 degrees Fahrenheit with a maximum isolation of 1.2 millimeters. The 1768-PA3 has an internal overcurrent protection due to the soldered non-replaceable fuse. It also comes with a user-supplied maximum overcurrent protection of 15 Amps and its typical efficiency rate is 75%, and a maximum input power of 120 VA or 120 W. The 1768-PA3's maximum inrush current is 50 Amps at 85 to 132 Volts AC and 80 Amps at 195 to 265 Volts AC while its power dissipation is 30 W.

The Allen-Bradley 1768-PA3 is a CompactLogix Power Supply. This Power Supply is used exclusively used for the 1768 product family. It is a power supply with selectable inputs, operating at Voltage categories of 85 - 265VAC or 108 -132VDC. This Power supply module provides backplane power which is used by the attached module to energize their individual circuitry. This power supply does not supply output power to the output modules. The 1768-PA3 features a maximum input power of 120VA / 120W, depending on the input voltage.

The 1768-PA3 power supply is compatible for use with 1768 CompactLogix Controllers such as 1768-L43, 1768-L43S, 1768-L45 and 1768-L45S. When installing modules to any 1768 rack, It is important to consider the power supply distance rating of each module. Power Supply distance rating ensures that the module will still be able to receive the necessary backplane power from the power supply. It also ensures that the power supply is appropriately sized up. If used with 1769 Compact I/O modules, the 1768-PA3 can accommodate up to Eight (8) modules in the same bank. In the 1768 system, the distance rating is the distance between 1769 I/O modules and the controller.

This power supply is provided with a single LED Indicator. Ideally, when power is applied, the LED should turn Green. If the LED remained OFF, verify if the input power is active, a short or overload might be active in the 1768 system or the power supply needs to be replace. When this LED indicator turns RED, it may mean that the power output to the backplane is not valid, the controller needs to be replaced or a communication, motion module is defective.