

Allen-Bradley 1756 Series Service Manual

1756-PA72K

1. Description

Allen Bradley ControlLogix AC Power Supply Module with 120-240 Volts AC Input Voltage Technical specifications for 1756-PA72K

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1756-PA72K
Series	ControlLogix
Module	Type AC Power Supply Module
Input	Voltage 120-240 Volts AC
Voltage	Range 85-265 Volts AC
Input	Power 100 Watts
Input	Frequency 47-63 Hertz
Power	Output 75 Watts at 60 Celsius
Chassis	Series A or B
Location	Chassis - Left Side
Weight	2.5 pounds (1.1 kilograms)
Dimensions	5.5 x 4.4 x 5.7 inches
Operating	Temperature 32-140 Fahrenheit (0-60 Celsius)
Enclosure	None Description
The	1756-PA72K module is a ControlLogix AC power supply module with an 85 to 265 Volts AC operating voltage range. The nominal input voltage for the 1756-PA72K module is 120 to 240 Volts AC. The module supports 47 to 63 Hertz line frequency. The maximum input power rating is 100 VA or 100 Watts. The maximum output power for the module is 75 Watts at 32 to 140 degrees Fahrenheit. The maximum inrush current is 20 Amps. The hold-up time is 5 cycles at 85 Volts AC, 6 cycles at 120 Volts AC, 6 cycles at 200 Vo

3. Product Information

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Brand Allen-Bradley

Part Number/Catalog No. 1756-PA72K

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Module Type AC Power Supply Module

Input Voltage 120-240 Volts AC

Voltage Range 85-265 Volts AC

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Chassis Series A or B

Location Chassis - Left Side

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Enclosure None Description

The 1756-PA72K module is a ControlLogix AC power supply module with an 85 to 265 Volts AC operating voltage range. The nominal input voltage for the 1756-PA72K module is 120 to 240 Volts AC. The module supports 47 to 63 Hertz line frequency. The maximum input power rating is 100 VA or 100 Watts. The maximum output power for the module is 75 Watts at 32 to 140 degrees Fahrenheit. The maximum inrush current is 20 Amps. The hold-up time is 5 cycles at 85 Volts AC, 6 cycles at 120 Volts AC, 6 cycles at 200 Volts AC, and 6 cycles at 240 Volts AC. The current capacity for the 1756-PA72K module is 1.5 Amps at 1.2 Volts DC, 4 Amps at 3.3 Volts DC, 10 Amps at 5.1 Volts DC, and 2.8 Amps at 24 Volts DC. The weight of the 1756-PA72K module is approximately 0.95 kilograms. The module dimensions are 5.51 x 4.41 x 5.71 inches. The module is installed on the left side of the 1756 chassis. Chassis compatible with the 1756-PA72K module include the 1756-A4, 1756-A7, 1756-A10, 1756-A13, and the 1756-A17 chassis (Series A, B, and C). The wire size recommended for use with the 1756-PA72K module is 14 AWG. The wire should be solid or stranded copper rated for 194 degrees Fahrenheit or greater. The wire should have maximum insulation of 3/64 inches. The wire category for power ports is 1. The conductor screw torque should be 5 pounds on an inch. The 1756-PA72K module has an open enclosure and it complies with the T4 North American temperature code. The storage and operating temperature ranges for the 1756-PA72K module are -40 to 185 and 32 to 140 degrees Fahrenheit, respectively. The 1756-PA72 is a Power Supply from the ControlLogix line of products, manufactured by Allen-Bradley/Rockwell Automation. This module enables the user to maintain the right quantity of power supply; it can be used with a Series A or Series B Chassis from the same product line. The part is 14 centimeters (5.51 inches) high and 11.2 centimeters (4.42 inches) wide, and it weighs approximately 0.95 kilograms (2.10 pounds). The non-redundant 1756-PA72 is to be mounted on the left side of the chassis and directly plugged into the backplane. The nominal power supply input is for the 120 to 240 Volts AC, while it requires between 85 and 265 Volts AC of a power supply to operate. In case an input voltage is removed and there is a failure of DC power, the hold up time enables 5 cycles at 85 Volts AC or 6 cycles at different ratings (either 120, 200 or 240 Volts AC).

The module has a maximum input power of 100 Watts, while its maximum output power is 75 Watts at 60 degrees Celsius. What makes the 1756-PA72 even more appealing is its surge transient immunity, and its immunity to conducted RF, radiated RF, ESD and so on. This AC power supply has vibration value of 2G at 10 to 50 Hertz, while its shock value varies and amounts to 30G for operating shock, and 50G for non-operating shock. Though it is designed as an open-type module, the user should make sure that it is mounted in an enclosure that is appropriate for the given environmental conditions. Furthermore, the enclosure should be hard to access, and should require the use of a tool. The user should ensure that the surrounding operating temperatures do not exceed 60 degrees Celsius (140 degrees Fahrenheit). Also, the 1756-PA72 can operate in an area where the relative non-condensing humidity ranges between 5 and 95%.