

Allen-Bradley 1756 Series Service Manual

1756-PAR2

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Module	Type Redundant Power Supply bundle
Series	ControlLogix
Part	Number/Catalog No. 1756-PAR2
Brand	1756-PAR2
Assembly	components Two (2) 1756-PA75R power supplies,; Two (2) 1756-CPR2 cables; One (1) 1756-PSCA2 Chassis adapter module
1756-PA75R	Nom Input Voltage 120/240VAC
1756-PA75R	Input Voltage Range 85-264VAC
Isolation	Voltage 250V (continuous), Reinforced Insulation Type, Power Input to Backplane, Power Input to Annunciator, Annunciator to Backplane Type tested at 3250V DC for 60 s
Max	Inrush Current 20 Amperes
Current	Capacity 1.5 A at 1.2VDC; 4A at 3.3VDC; 13 A at 5.1VDC and 2.8 A at 24VDC
Output	Power 75 W @ 0...60 °C (32...140 °F)
Annunciator	Power 240V AC 50/60 Hz, 240V DC, 50 mA, resistive only
Hold	Up time 2 cycles @ 60 Hz; 2 cycles @ 50 Hz
Chassis	Compatibility 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17
Input	Voltage 85-265 VAC Description
The	Allen-Bradley 1756-PAR2 is a bundled system composed of products that belongs to the ControlLogi

3. Product Information

Mfr. Part Number:

1756-PAR2

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen-Bradley 1756-PAR2 ControlLogix 85-265VAC Redundant Power Supply Kit

Full Description: Allen Bradley 1756-PAR2 ControlLogix 85-265V AC Redundant Power Supply Assembly, Contains: 2x 1756-PA75R Power Supplies, 2x 1756-CPR2 Cables, 1x 1756-PSCA2 Chassis Adapter The Allen-Bradley 1756-PAR2 is a ControlLogix Redundant Power Supply kit. This assembly is composed of Two (2) 1756-PA75R power supplies, Two (2) 1756-CPR2 cables and One (1) 1756-PSCA2 Chassis adapter module. Technical specifications for 1756-PAR2

Manufacturer Rockwell Automation

Module Type Redundant Power Supply bundle

Series ControlLogix

Part Number/Catalog No. 1756-PAR2

Brand 1756-PAR2

Assembly components Two (2) 1756-PA75R power supplies,; Two (2) 1756-CPR2 cables; One (1) 1756-PSCA2 Chassis adapter module

1756-PA75R Nom Input Voltage 120/240VAC

1756-PA75R Input Voltage Range 85-264VAC

Isolation Voltage 250V (continuous), Reinforced Insulation Type, Power Input to Backplane, Power Input to Annunciator, Annunciator to Backplane Type tested at 3250V DC for 60 s

Max Inrush Current 20 Amperes

Current Capacity 1.5 A at 1.2VDC; 4A at 3.3VDC; 13 A at 5.1VDC and 2.8 A at 24VDC

Output Power 75 W @ 0...60 °C (32...140 °F)

Annunciator Power 240V AC 50/60 Hz, 240V DC, 50 mA, resistive only

Hold Up time 2 cycles @ 60 Hz; 2 cycles @ 50 Hz

Chassis Compatibility 1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17

Input Voltage 85-265 VAC Description

The Allen-Bradley 1756-PAR2 is a bundled system composed of products that belongs to the ControlLogix product family. The 1756-PAR2 is composed of Two (2) 1756-PA75R power supplies, Two (2) 1756-CPR2 cables and One (1) 1756-PSCA2 Chassis adapter module.

The 1756-PA75R is a redundant power supply use along another power redundant unit. This type of power supply provides failsafe protection and ideally used in critical application that require minimized risks of application downtime. The has an input voltage range of 85-264VAC, 47-63 Hz with nominal input voltage of 120 / 240 VAC along an nominal input frequency of 50/60 Hz. This power supply provides maximum output power of 75 Watts and current capacities of 1.5 @ 1.2 VDC; 4 A @ 3.3 VDC; 13 A @ 5.1 VDC and 2.8 A @ 24VDC. The 1756-CPR2 is a redundant power supply cable that is used to connect both the power supplies for synchronization and perform internal communication. This cable measures 0.91 m or 3 ft with minimum cable bend radius of 12.7 cm or 5 inches.

The 1756-PSCA2 is a ControlLogix redundant power supply chassis adapter. This component is a passive device, used to consolidate power from both the installed pair of power supplies to the lone power connector that resides on the ControlLogix chassis backplane circuitry.

This assembly provides user and control system designers to easily decide on the components of a redundant ControlLogix controller system configuration. It lessens the risk of having an item left-out which may happen when selecting large or complex control systems.

To set up the 1756-PAR2 power supply, attach a standard power supply to the left end of the framework and fasten it directly to the backplane. This unit is built with smart and rugged technology, giving the 1756-PAR2 ControlLogix-XT power supply the ability to withstand extreme temperatures and tough environments. A redundant power supply system provides extra uptime protection for chassis that are used in critical applications; it funnels power through the chassis adapter to the ControlLogix series B chassis backplane. To build a redundant power supply system, a redundant power supply system that offers additional protection for the framework being used in significant applications is required. The power supply directs the power through the framework adaptor to the ControlLogix series B framework backplane. To create a redundant power supply structure, some of the main components that are needed include a pair of bundled systems with one of them containing two 1756-PA75R power supplies, two 1756-CPR2 cables, and one 1756-PSCA2 framework adapter and other one having two 1756-PB75R power supplies, two 1756-CPR2 cables, and one 1756-PSCA2 framework adapter, in addition to a redundant AC power supply, a redundant DC power supply, a redundant power supply cable (with a length of 0.91 meters or 3 feet), a redundant power supply framework adapter, and an annunciator wiring (1) with a maximum length of 10 meters or 32.8 feet.