

Allen-Bradley 1746 1747 Series Service Manual

1746-OA16

1. Description

The Allen-Bradley 1746-OA16 is an SLC500 Discrete AC output module. This AC output module features Sixteen (16) AC output channels in Two (2) groups of Eight (8) outputs each channel, providing signal voltages of 120/240VAC with output voltage range of 85-265VAC. Technical specifications for 1746-OA16

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Module	Type Digital AC Output Module
Series	SLC500
Part	Number/Catalog No. 1746-OA16
Brand	Allen-Bradley
No.	of Outputs Sixteen (16) outputs
Output	Voltage 120/240 VAC output
Operating	Voltage Range 85-264 VAC
Output	Delay Time, OFF to ON 11.0 ms
Output	Delay Time, ON to OFF 1 ms
OFF	state leakage current 2 mA
Load	Current 10 mA
Backplane	Current at 5.1 Volts 0.370 A
Continuous	current per point 0.50 A @ 30 °C (86 °F) 0.25 A @ 55 °C (131 °F)
Continuous	current per module, max 8.0 A @ 30 °C (86 °F) 4.0 A @ 60 °C (140 °F)
Voltage	Range 85 to 265 Volts AC
Outputs	16
Current/Output	at 30 degrees Celsius 0.5 Amps
Current/Output	at 60 degrees Celsius 0.25 Amps
Backplane	Current (5 Volts DC) 370 milliamps
Current/Module	(30 degrees Celsius) 8 Amps
Applications	General Purpose
Step	Response 60 milliseconds in 2.1 milliseconds out
Ambient	Operating Temperature 32 to 140 degrees Fahrenheit
UPC	10662468067062
UNSPSC	32151705 Description
The	Allen-Bradley 1746-OA1

3. Product Information

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Series SLC500

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Operating Voltage Range 85-264 VAC

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Continuous current per point 0.50 A @ 30 °C (86 °F) 0.25 A @ 55 °C (131 °F)

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Backplane Current (5 Volts DC) 370 milliamps

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Applications General Purpose

Step Response 60 milliseconds in, 2.5 milliseconds out

Ambient Operating Temperature 32 to 140 degrees Fahrenheit

UPC 10662468067062

UNSPSC 32151705 Description

The Allen-Bradley 1746-OA16 is a Digital AC output module designed for use with the SLC500 controller family. This output modules provides 120-240VAC nominal voltage output with voltage range of 85-264VAC at a frequency of 47-63 Hz.

It may be installed as a local and remote I/O module of any SLC500 Programmable Logic Controllers (PLC) processor or CompactLogix and ControlLogix Programmable Automation Controllers (PAC). There is no limit to the number of installation instances of this module as long as the system power supply is capable of supplying the required current of each module installed in the same chassis. Specifically, the 1746-OA16 has a Current draw of 0.316 A. This module occupies a single slot of the controller chassis and consumes 16-bit I/O memory.

The 1746-OA16 comes with Two (2) output groups with each group having Eight (8) channels. Each channel of this module has an output Current of 0.50 A @ 30 °C (86 °F) and 0.25 A @ 60 °C (140 °F) with continuous output per module of 8.0 A @ 30 °C (86 °F) and 4.0 A @ 60 °C (140 °F). It has an On-state voltage drop of 1.50V @ 0.50 A and surge Current per point of 10.0 A for 25 ms while the module's load Current is 10 mA. The 1746-OA16 has an ON signal delay of 1 ms and OFF signal delay of 11.0 ms with OFF-state leakage Current of 2 mA. The 1746-OA16 comes with removable terminal blocks that eliminate the need to disconnect wires when replacing any of the modules. The 1746-OA16 also includes filter circuitry and optical coupling for signal noise reduction. The 1746-OA16 module's output values can be accessed by SLC 500 processors using Ladder Logic. Troubleshooting is made easier with the LED indicators that show output status values. The SLC 500 system uses a sharing-based hardware platform which includes several combinations of digital and analog I/O, saving costs and space. The 1746-OA16 is intended for use in an environment with a 0 to 60 degrees Celsius (32 to 140 degrees Fahrenheit) operating temperature range and 5 to 95% noncondensing relative humidity.

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