

Allen-Bradley 1756 Series Service Manual

1756-OA8

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Series	ControlLogix
Part	Number/Catalog No. 1756-OA8
Outputs	8
Module	Type Digital AC Output Module
Voltage	120-240 Volts AC
No.	of Outputs Eight (8)
Voltage	Category 120 / 240 Volts AC
Maximum	Output Current Rating-Point 2 Amps at 60 degrees Celsius
Operating	Voltage Range 74-265 Volts AC
Maximum	Output Current Rating-Module 5 Amps at 30 degrees Celsius, 4 Amps at 60 degrees Celsius
Output	Delay Time Programmable 9.3 or 11 milliseconds
Current	per point 0.5 A @ 60 °C (140 °F)
Current	per group, max 2 A @ 60 °C (140 °F)
Removeable	Terminal Block(s) 1756-TBNH, 1756-TBSH
Current	per module 5 A @ 30 °C (86 °F) linear derating; 4 A @ 60 °C (140 °F) linear derating
Backplane	Current at 5 Volts 200 mA
Isolation	Voltage 50 Volts Continuous
Power	Dissipation (Max) 5.1 W @ 60 °C (140 °F)
Enclosure	None
Backplane	Current at 24 Volts 2 mA
UNSPSC	32151705
Removable	Terminal Blocks 1756-TBNH, 1756-TBSH Description
The	1756-OA8 module is a Contro

3. Product Information

Mfr. Part Number:

1756-OA8

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen-Bradley 1756-OA8 ControlLogix Digital AC Output Module 74-265V 8-Points

Full Description: Allen-Bradley 1756-OA8 ControlLogix Digital AC Output Module, 74-265 VAC, 8 Points (20 Pin), 2A per point The 1756-OA8 is a ControlLogix Discrete output module which operate at a voltage category of 74 to 265V AC at a frequency of 47 to 63 Hz. This module has Eight (8) channels with Two (2) groups of Four (4) channels each. This module is directly installed to a 1756 local or remote chassis. Technical specifications for 1756-OA8

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Brand Allen-Bradley

Series ControlLogix

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Outputs 8

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Voltage 120-240 Volts AC

No. of Outputs Eight (8)

Voltage Category 120 / 240 Volts AC

Maximum Output Current Rating-Point 2 Amps at 60 degrees Celsius

Operating Voltage Range 74-265 Volts AC

Maximum Output Current Rating-Module 5 Amps at 30 degrees Celsius, 4 Amps at 60 degrees Celsius

Output Delay Time Programmable 9.3 or 11 milliseconds

Current per point 0.5 A @ 60 °C (140 °F)

Current per group, max 2 A @ 60 °C (140 °F)

Removeable Terminal Block(s) 1756-TBNH, 1756-TBSH

Current per module 5 A @ 30 °C (86 °F) linear derating; 4 A @ 60 °C (140 °F) linear derating

Backplane Current at 5 Volts 200 mA

Isolation Voltage 50 Volts Continuous

Power Dissipation (Max) 5.1 W @ 60 °C (140 °F)

Enclosure None

Backplane Current at 24 Volts 2 mA

UNSPSC 32151705

Removable Terminal Block(s) 1756-TBCH, 1756-TBSH Description

The 1756-OA8 module is a ControlLogix digital AC output module manufactured by Allen-Bradley. Its voltage range is 120 to 240 Volts AC at 50 to 60 Hertz and it has an operating voltage range of 74 to 265 Volts AC at 47 to 63 Hertz. It is compatible with the Allen-Bradley 1756-TBNH and 1756-TBSH Removable Terminal Blocks (RTB), and its current draw ratings are 200 milliamps at 5.1 Volts and 2 milliamps at 24 Volts. The 1756-OA8 AC output module has a total backplane power rating of 1.07 Watts. The output delay time (from off to on and on to off) is 9.3 milliseconds at 60 Hertz and 11 milliseconds at 50 Hertz. Eight outputs (4 points each for Group 0 and Group 1) are available on the 1756-OA8 ControlLogix output module. Its States in Fault mode per point and States in Program mode per point can hold the last state (for both the on-state and the off-state). The current rating per point is 2 Amps at 60 degrees Celsius (linear derating) and the surge current rating per point is 20 Amps for 43 milliseconds (repeatable every 2 seconds at 60 degrees Celsius). The maximum power dissipation rating of the 1756-OA8 ControlLogix output module is 5.1 Watts at 60 degrees Celsius while its thermal dissipation is 17.39 BTU per hour. Its slot width is 1 and its minimum load current per point is 10 milliamps. In its off-state, the maximum leakage current of this module is 3 milliamps per point. The 1756-OA8 output module also supports synchronization within 16.7 seconds for scheduled outputs.

The Allen-Bradley 1756-OA8 is an Eight (8) Channel Discrete AC output module that features Two (2) I/O groups with Four (4) channels each. This module operates at an operating voltage range of 74 to 265 VAC with frequency range of 47/63 Hz.

The idea of channel groupings is to allow the module to independently operate each channel with different voltage levels however, it should be both AC voltage. This way, one group may operate at 120VAC while the other may operate at 240VAC at the terminal commons are not internally connected. Also, it provides isolation point when troubleshooting is conducted.

Compatible ControlLogix chassis for this module 1756-A4, 1756-A7, 1756-A10, 1756-A13 and 1756-A17. This module requires an Allen-Bradley Removable Terminal Block (RTB). RTBs are modular and provides termination point for the module. With the RTB, signals may be wired conveniently without the need of the actual module. It also allows quick module replacement should the become become defective is it eliminates rewiring tasks. This module supports local or remote I/O ControlLogix chassis installation, be it a stand-alone configuration or part of a distributed I/O topology.

Output module's are used to energize electrical components or loads such as Solenoid, Relays, Pilot Lamps, Siren, Horn, Buzzer, Annunciator panels, motors, contactors and other devices. It is recommended to install an external fusing to provide module protection as this module does not come with fused channels. Fuse sizing reference will depend on the current rating per point. S to the 1756-OA8, the Current per point is 0.5 A.

This module is compatible with any ControlLogix processor. It is also compatible with any ControlLogix communication module including encompass partner modules. It may also work along a GuardLogix module.

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