

Allen-Bradley 1746 1747 Series Service Manual

1768-L45

1. Description

The Allen-Bradley 1768-L45 is a CompactLogix controller from the 1768 CompactLogix family. This controller provides Logix platform capability intended for medium sized applications. It has an integral 3MB memory, One (1) RS232 fully isolated, communication port. Technical specifications for 1768-L45

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1768-L45
Product	Line CompactLogix
Product	Type: Controller
Module	Type Processor Module
Integrated	Memory: 3MB
Shipping	Weight 2 pounds
Communication	ports: One (1) RS232
Shipping	Dimensions 8x8x5 inches
Series	A and B
Maximum	number of I/O modules supported: 30 Modules
Isolation	Voltage 30 Volts Continuous
Maximum	number of I/O banks supported: 3 Banks
Power	supply distance rating: 4
Enclosure	Open
Programming	cable: 1747-CP3 / 1756-CP3
Vibration:	Operating: 10 to 500 Hz, 5G, 0.030 in. peak-to-peak
Operating	Temperature: 0° to +60°C (+32° to +140°F)
Backplane	current 2.0 Amps at 24 Volts
UPC	10612598307545
Power	consumption 48.0 Watts maximum
Power	dissipation 8.3 Watts
Shipping	0.34 kg (11.99 oz) Description
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Shipping 0.34 kg (11.99 oz) Description

The Allen-Bradley 1768-L45 is a CompactLogix controller which offers advanced capabilities and cost-effective solution for medium sized automation requirements. This controller is designed with Logix capability particularly, a larger integrated memory of 3MB, expansion support of up to Four (4) 1768 modules, Thirty (30) 1769 Compact I/O modules that may be installed in Three (3) expansion banks.

This controller is provided with a 3MB memory. An optional non-volatile memory may be added using the CompactFlash 1784-CF128. A fully isolated RS232 communication port is also embedded with this controller. It supports a maximum speed of 38.4 Kbps. This serial communication port supports DF1 Full and Half Duplex and DH485 communication protocol. Recommended cables to establish communication with the embedded serial port are 1756-CP3 or 1747-CP3, which is a right-angle connector to controller, straight to serial port, with length of 3 meters.

For Ethernet communication and any other communication protocols, the 1768-L45 supports installation of up Two (2) communication modules. Specifically for Ethernet, 1768-ENBT and 1768-EWEB may be installed. The 1768-L45 Compact Logix controller by Allen-Bradley offers solutions for control applications with motion, I/O, and network demands. It supports Four (4) 1768 modules, Thirty (30) 1769 Compact I/O modules. It requires backplane current of 2.0 Amps at 24 Volts. When used with 1769 modules, the backplane current draw of 2.0 A at 5.7 Volts. For 1768 modules, the backplane current draw is 5.6 A at 5 Volts. Total backplane Current draw when used with 1768 and 1769 modules is 7.6 Amps at 5.2 Volts. It dissipates 8.3 W along power consumption of 48.0 W. The 1768-L45 can support a maximum of thirty 1769 I/O modules which can reside in 3 local I/O module banks. It has an isolation voltage of 30 Volts with the isolation type tested at 500 Volts AC for 60 seconds. The 1768-L45 is certified at the T4 (135 degrees Celsius) temperature code. When installing the controller, use M4 or #8 screws. The controller has dimensions of It has dimensions of 131.6 x 67.4 x 121.8 millimeters or 5.18 x 2.65 x 4.80 inches and weighs approximately 0.34 kilograms (11.9 ounces). The 1768-L45 has an operating temperature range between 0 and 60 degrees Celsius (32 to 140 degrees Fahrenheit) at a 5 to 95% non-condensing relative humidity. It has an operational shock rate of 30G and one of up to 50G in non-operational mode, with a maximum vibration of 5G at 10 to 500 Hertz. It has a CISPR 11 Group 1, Class A, emission standard for an industrial environment. It is cUL-us tested and certified to meet standard requirements in the US and Canada.