GE Series 90-30 Series Service Manual

IC693MDL390

1. Description

The IC693MDL390 is a Series 90-30, 120 / 240 VAC Isolated output module. This module is formerly produced by GE Fanuc, now acquired by Emerson Automation. It features five (5) individually isolated discrete output channels that deliver an output voltage range of 85-264 VAC with nominal rated voltages of 120 / 240 VAC and maximum output current of 2.0 Amperes per point; 5 Amperes per module at 45 Degree Celsius and 2 Amperes per module at 60 Degree Celsius.

2. Specifications

Specification	Value
Brand	**GE Intelligent Platforms/GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc (Former); Emerson Automation (Current)**
Isolation,	**Optical and channel: 500 volts, continuous; 1500 VAC for 1 minute**
Part	**Number IC693MDL390**
Product	**Description Discrete output module**
Output	**voltage range 85 - 264VAC (47 to 63 Hz)**
No	**of Channels Five (5) individually isolated**
Output	**current 2.0 Amperes per point; 5.0 Amperes at 45 Degree Celsius 2.0 Amperes at 60 Degree Celsius**
Output	**signal range 85-264 VAC**
Maximum	**inrush current 25 A For 1 cycle**
Product	**Type Output Module**
Nominal	**output voltage 120 / 240 VAC**
Current	**draw 110 mA (all outputs active)**
Rated	**Voltage 120/240 V AC**
Output	**current per point 2A**
On	**response time, maximum 1 ms**
Output	**Voltage Range 85/264 V AC**
Output	**current per module 5 A @ 45o C (113o F); 2 A @ 60o C (140o F)**
Off	**response time, maximum ½ Cycle**
Frequency	**50/60 Hz**
Inrush	**current 25 A for one cycle**
Output	**Voltage Drop 1.5 volt, maximum**
Outputs	**per module 5**
On	**Response time 1 ms**
Outpu	

3. Product Information

The IC693MDL390 is a Series 90-30, 120 / 240 VAC Isolated output module. This module is formerly produced by GE Fanuc, now acquired by Emerson Automation. It features five (5) individually isolated discrete output channels that deliver an output voltage range of 85-264 VAC with nominal rated voltages of 120 / 240 VAC and maximum output current of 2.0 Amperes per point; 5 Amperes per module at 45 Degree Celsius and 2 Amperes per module at 60 Degree Celsius.

Technical specifications for IC693MDL390

Brand GE Intelligent Platforms/GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc (Former); Emerson Automation (Current)

Isolation, Optical and channel: 500 volts, continuous; 1500 VAC for 1 minute

Part Number IC693MDL390

Product Description Discrete output module

Output voltage range 85 – 264VAC (47 to 63 Hz)

No of Channels Five (5) individually isolated

Output current 2.0 Amperes per point; 5.0 Amperes at 45 Degree Celsius 2.0 Amperes at 60 Degree Celsius

Output signal range 85-264 VAC

Maximum inrush current 25 A For 1 cycle

Product Type Output Module

Nominal output voltage 120 / 240 VAC

Current draw 110 mA (all outputs active)

Rated Voltage 120/240 V AC

Output current per point 2A

On response time, maximum 1 ms

Output Voltage Range 85/264 V AC

Output current per module 5 A @ 45o C (113o F); 2 A @ 60o C (140o F)

Off response time, maximum ½ Cycle

Frequency 50/60 Hz

Inrush current 25 A for one cycle

Output Voltage Drop 1.5 volt, maximum

Outputs per module 5

On Response time 1 ms

Output Leakage 3 mA maximum at 120 volts AC; 6 mA maximum at 240 volts AC

Minimum Load Current 100 mA

Off response time ½ cycle

Output Voltage Drop 1.5 Volts maximum

Isolation 1500 volts between field side and logic side; 500 volts between each group

Max. Inrush Current per Cycle 25 A

Minimum Load Current 100 mA

Max. Output Voltage Drop 1.5 V

Product Lifecycle Status Discontinued/Obsolete

The IC693MDL390 is a Five (5) channel discrete output module that belongs to the Series 90-30 product category of Programmable Logic Controllers (PLC). Formerly manufactured by GE Fanuc now under Emerson Automation, this module mainly features individually isolated output channels, providing an output voltage range of 85-264 VAC and frequency of 50/60 Hz. Each output channel generates a maximum of 2 Amperes per point while the maximum output current per module at 45 Degree Celsius is 5 Amperes while a maximum of 2 Amperes can be generated at an operating temperature of 60 Degree Celsius. Between each output point, the isolation rating is 500 Volts while field side to logic side isolation is rated at 1500 VAC. The output module generates a maximum inrush current of 25 Amperes for a single cycle while the minimum load current is 100 mA. The maximum output voltage drop is measured at 1.5 Volts and the maximum leakage current are 3 mA at 120 VAC and 6 mA at 240 VAC. The module's output ON state transition delay duration is 1 ms while for OF response, the rated delay is ½ cycle. This module has a backplane current draw of 110 mA when all outputs are energized. Each output channel is provided with 3 A-rated fuses for protection. In addition, Resistor - Capacitor snubber circuits are also provided for eliminating transient electrical noise. It is also provided with individual LED status indicators that depict the energization state of each output and a single "F" LED intended for fuse indicator is also provided for reporting of a blown fuse.

The IC694MDL350 is an AC output module from the PACSystem RX3i Programmable Automation Controller (PAC) platform formerly by GE Intelligent Platforms now by Emerson Automation. This module is provided with Sixteen (16) individually isolated output channels that delivers an output voltage rage of 74-265 VAC and frequency range of 47-63 Hz. This module has power consumption of 315 mA when all outputs are active, sourced from the 5VDC backplane supply. The maximum output current rating of the module is 2 A when operated at temperature of 30 Degrees Celsius or 1 A at 60 Degree Celsius. The IC694MDL350 comes with field side to logic side and group to group isolation ratings of isolation rating of 250 VAC, continuous and 1500 VAC for 1 minute. Integrated diagnostic capability of this module includes reporting of a removed or disconnected terminal block. For termination of field devices, the IC694MDL350 is required to use either of the compatible removable terminal bases such as the Box-style with catalog number IC694TBB032, Extended Boxstyle with part number IC694TBB132, Spring-style with order number of IC694TBS032, or Extended Springstyle with catalog number IC694TBS132. This module occupies a single slot of the RX3i backplane and must be installed along an RX3i CPU with firmware version of 3.50 or later. This module is not compatible with the Series 90-30 Platform. Individual status indicators are provided to this module. The LEDS are numbered that represent a particular module channel and also comes with a "TB" LED that energizes when the terminal block is not detected by the module.