GE Series 90-30 Series Service Manual

IC693DSM324

1. Description

The IC693DSM324 is a Motion Controller Module that is part of the Series 90-30 PLC, formerly by GE Fanuc Automation, now under Emerson Automation. This module is a Four (4) axis motion controller can be integrated with the host controller for motion and position control with reference to the downloader user logic. This module is configurable for Standard and Follower mode and supports ?i, ?HVi, ?i, and ?HVi Series digital servo systems.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc (Former); Emerson Automation (Current)**
Part	**Number IC693DSM324**
Part	**Number IC693DSM324**
Compatibility	**Series 90-30, PACSystems RX3i**
Product	**Description Motion Controller Module**
Slot	**width Single slot**
Power	**requirements 5 Volts DC**
No.	**of motion axes Four (4)**
Power	**consumption 860 milliAmps without encoder supply current**
No.	**of modules per system up to 20 modules**
Encoder	**supply current 500 milliAmps**
Compatible	**CPUs CPU 364, CPU 374, CPU 350, CPU 352, CPU 360, and CPU 363**
PACSystems	**RX3i main rack 5 DSM324i modules / CPU baseplate per PWR 040**
Compatible	**Power supply PWR 321 / 322 / 328 / 330 / 331**
PACSystems	**RX3i expansion/remote racks 2 to 6 DSM324i modules**
Backplane	**Current draw 860 mA at 5VDC**
Total	**DSM324i modules per PACSystems RX3i system 32**
Mounting	**location Main Rack, expansion / remote baseplate**
Total	**DSM324i modules per Series 90-30 PLC system 20**
LED	**indicators STATUS; OK; CONFIG; FSSB; 1, 2,3 and 4 axis indicators**
Operating	

3. Product Information

The IC693DSM324 is a Motion Controller Module that is part of the Series 90-30 PLC, formerly by GE Fanuc Automation, now under Emerson Automation. This module is a Four (4) axis motion controller can be integrated with the host controller for motion and position control with reference to the downloader user logic. This module is configurable for Standard and Follower mode and supports ?i, ?HVi, ?i, and ?HVi Series digital servo systems.

Technical specifications for IC693DSM324

Brand GE Fanuc

Series Series 90-30

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

Part Number IC693DSM324

Part Number IC693DSM324

Compatibility Series 90-30, PACSystems RX3i

Product Description Motion Controller Module

Slot width Single slot

Power requirements 5 Volts DC

No. of motion axes Four (4)

Power consumption 860 milliAmps without encoder supply current

No. of modules per system up to 20 modules

Encoder supply current 500 milliAmps

Compatible CPUs CPU 364, CPU 374, CPU 350, CPU 352, CPU 360, and CPU 363

PACSystems RX3i main rack 5 DSM324i modules / CPU baseplate per PWR 040

Compatible Power supply PWR 321 / 322 / 328 / 330 / 331

PACSystems RX3i expansion/remote racks 2 to 6 DSM324i modules

Backplane Current draw 860 mA at 5VDC

Total DSM324i modules per PACSystems RX3i system 32

Mounting location Main Rack, expansion / remote baseplate

Total DSM324i modules per Series 90-30 PLC system 20

LED indicators STATUS; OK; CONFIG; FSSB; 1, 2,3 and 4 axis indicators

Operating temperature 0 to 60 degrees Celsius (32 to 140 degrees Fahrenheit)

Communication ports 24 VDC I/O: 36 Pin D-shell port 5VDC I/O: 36 Pin D-shell port COM Port: RJ45 FSSB port

Storage temperature -40 to 85 degrees Celsius (-40 to 185 degrees Fahrenheit)

Operating mode Standard mode; follower mode

Product Lifecycle Discontinued

The IC693DSM324 is a Motion controller module from the Series 90-30 programmable Logic Controller Series. This module is capable of controlling up to Four (4) motion control axes, ideally used for more complex motion control systems. The IC693DSM324 is configurable to operate in standard mode and follower mode and compatible for use with ?i, ?HVi, ?i, and ?HVi Series digital servo amplifiers and motors. The IC693DSM324 is mounted to a Series 90-30 Baseplate. It can be installed to the main rack with CPU 364 and 374 wherein One (1) IC693DSM324 can be installed when used with PWR 321 / PWR 322 / PWR 328 power supply modules; Up to Four (4) instances when installed with PWR 330 / PWR 331; with CPU 350, 352, 360 and 363 Two (2) IC693DSM324 can be installed when used with PWR 321 / PWR 322 / PWR 328 and up to Five (5) IC693DSM324 instances with PWR 330 / PWR 331. It can be also installed to expansion or remote baseplates wherein Two (2) IC693DSM324 can be installed to a remote baseplate when used with PWR 321 / PWR 322 / PWR 328; Three (3) with an expansion baseplate PWR 330 / PWR 331 and up to Six (6) instances to an expansion or remote baseplate with Power supply modules PWR330 / PWR 331. The maximum allowable instance per Series 90-30 system is 20 instances of the IC693DSM324 motion controller module. The IC693DSM324 has a backplane current draw of 860 mA plus the encoder supply current at 5VDC.

The GE Fanuc motion controller that is known as the IC693DSM324 module is used for complex industrial systems constructed to operate as one cohesive controller unit. The IC693DSM324 controller is intended for use with components from GE Series 90-30 and components which are part of the PACSystems RX3i series. The unit has a CPU firmware version 10 or later and it allows up to 32 DSM324i modules to be connected in a PACSystems RX3i system. The main rack of the PACSystems RX3i system can allow for up to 5 DSM324i modules in a designated CPU baseplate and it also supports multiple modules in the expansion/remote racks. Similar support is provided for the Series 90-30 systems, even though it allows for less modules to be installed with a total of only 20 modules supported per system. The IC693DSM324 motion controller draws a current of 860 milliAmps and it requires an additional 500 milliAmps of current in order to provide a proper power supply for the external encoder. The unit is built from high-quality material and it has a metal case that can endure use in a demanding industrial environment. The IC693DSM324 controller is a CE certified and UL listed component that operates within a temperature range of 0 to 60 degrees Celsius (32 to 140 degrees Fahrenheit). In addition to that, the unit can be stored in temperatures from -40 to 85 degrees Celsius (-40 to 185 degrees Fahrenheit) and it can withstand moderate shock and vibration levels. Some of the features of the IC693DSM324 controller are high-speed operation, synchronous math functions, advanced handling of power losses, easy programming, an electronic CAM follower, and control of digital servo motors.