GE Series 90-30 Series Service Manual

IC693CPU311

1. Description

The IC693CPU311 is a 5-slot baseplate with embedded CPU from the Series 90-30 Programmable Logic Controller (PLC) platform. Formerly manufactured by GE Fanuc, now under Emerson Automation, this baseplate mainly features an embedded 80188 CPU with clock speed of 10 MHz with Boolean execution time of 18 ms per 1K logic. It comes with a program memory of 6Kbytes and capable of processing up to 160 Discrete Inputs, 160 Discrete outputs, 64 Analog input Words and 32 Analog output Words. This baseplat

2. Specifications

Specification	Value
Manufacturer	GE Fanuc
Series	Series 90-30
Series	Series 90-30
Manufacturer	GE Fanuc; Emerson Automation (Current)
Part	Number IC693CPU311
Product	Description Embedded CPU baseplate
Series	Series 90-30
Product	Type Baseplate with Built-In CPU
No.	of I/O slots Five (5)
Part	Number IC693CPU311
Number	of Slots 5
No.	of Power supply slots One (1)
Product	Description Baseplate with embedded CPU
Memory	Capacity 6 KB of User Program Memory
Expansion	baseplate slot None
Clock	Speed 10 MHz
Operating	Temperature 32 to 140 degrees Fahrenheit
User	memory 6 Kbytes
User	Memory 6 Kbytes
Number	of Serial Ports 1
Processor	type 80188
Boolean	Execution speed 18 ms per 1K logic
Current	Load 410 Milliamps
Typical	scan rate 18 ms per 1K of Boolean logic
Analog	Outputs - %AQ 32 Words
CPU	Processor Speed 10 MegaHertz
Processor	speeds 10 MHz
Timers	/ Counters 170
Product	Lifecycle Status* Discontinued/Obsolete
Expandable	None
Communication	Ports One (1) SNP Ports hosted by the Power Supply module
Discrete	Inpu

3. Product Information

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Technical specifications for IC693CPU311

Manufacturer GE Fanuc

Series Series 90-30

Series Series 90-30

Manufacturer GE Fanuc; Emerson Automation (Current)

Part Number IC693CPU311

Product Description Embedded CPU baseplate

Series Series 90-30

Product Type Baseplate with Built-In CPU

No. of I/O slots Five (5)

Part Number IC693CPU311

Number of Slots 5

No. of Power supply slots One (1)

Product Description Baseplate with embedded CPU

Memory Capacity 6 KB of User Program Memory

Expansion baseplate slot None

Clock Speed 10 MHz

Operating Temperature 32 to 140 degrees Fahrenheit

User memory 6 Kbytes

User Memory 6 Kbytes

Number of Serial Ports 1

Processor type 80188

Boolean Execution speed 18 ms per 1K logic

Current Load 410 Milliamps

Typical scan rate 18 ms per 1K of Boolean logic

Analog Outputs - %AQ 32 Words

CPU Processor Speed 10 MegaHertz

Processor speeds 10 MHz

Timers / Counters 170

Product Lifecycle Status* Discontinued/Obsolete

Expandable None

Communication Ports One (1) SNP Ports hosted by the Power Supply module

Discrete Input Points - %I 160

Interrupts No

Discrete Output Points - %Q 160

Shift register Yes

Analog Inputs - %AI 64 Words

Analog Outputs - %AQ 32 words

Built-in Serial Ports 1 (uses connector on PLC power supply). Supports SNP slave and SNP-X slave protocols

Current load: 410 mA

Bus voltage: +5VDC

Embedded timer and counter instructions available to the embedded processor are up to 170 and support Shift Register instruction as well. This baseplate is also provided with a non-volatile EPROM or EEPROM slot which is intended for memory expansion. The embedded CPU does not come with an integrated port instead, the communication interface is hosted by the power supply module which is a single SNP slave and SNP-X slave protocol compatible port. Optional communication protocols supported by this module are Ethernet, FIP, Profibus, GBC, GCM, GCM+ option modules.

The GE Fanuc Series 90-30 IC693CPU311 baseplate is a special baseplate that has 5 slots with a CPU built right in. The IC693CPU311 5-slot baseplate with a built-in CPU has 6 KB of user program memory. This special baseplate is a useful part for many Series 90-30 PLCs, but it is not compatible with every PLC component from the GE Series 90-30 product line. For example, the IC693CPU311 baseplate cannot accommodate the Series 90-30 PCM and CCM devices. This baseplate also does not have a battery-backed clock, interrupt, or override features. However, some of the features that the IC693CPU311 5-slot baseplate with a built-in CPU comes with features like shift registers, 170 timers or counters, and 1 built-in serial port. The GE Fanuc Series 90-30 IC693CPU311 5-slot baseplate can support RAM and optional EPROM and EEPROM as its memory options. This baseplate and its CPU can communicate through multidrop LAN, Profibus, FIP, Ethernet, GBC, GCM, and GCM+ optional communication modules. Its typical scan rate is 18 milliseconds for every 1K of logic with the boolean contacts and its CPU processor speed is 10 MegaHertz. The IC693CPU311 5-slot baseplate needs 410 milliamps of current load from a 5 Volts DC rated power supply to operate. It can operate within a temperature range of 32 to 140 degrees Fahrenheit or 0 to 60 degrees Celsius. The built-in serial port on this baseplate can support both the SNP slave protocol and the SNP-X slave protocol. This port uses a connector on the PLC’s power supply module.