GE Series 90-30 Series Service Manual

IC693CPU331

1. Description

The IC693CPU331 is a Series 90-30 component that is manufactured by GE Fanuc. This is a single-slot modular CPU. It is installed with a 80188 processor with 10MHz clock speed and maximum user program memory of 16 Kbytes. It supports 512 Discrete Inputs, 512 Discrete outputs, 128 Analog input Words and 64 Words Analog output Words. It has One (1) serial port SNP / SNP-X slave protocols. This processor has typical scan rate of 0.4 milliseconds per 1K of Boolean logic.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc**
Part	**Number IC693CPU331**
Product	**Description Modular CPU**
Product	**type CPU module**
User	**memory 16 Kbytes**
Compatibility	**GE Fanuc 90-30 PLCs**
Processor	**type 80188**
Clock	**speed 10 Megahertz**
Typical	**scan rate 0.4 ms per 1K of Boolean logic**
Microprocessor	**80188**
Processor	**speeds 10 MHz**
Serial	**port 1**
Expandable	**Yes**
Discrete	**inputs 512**
No.	**of extension baseplates Four (4) expansion baseplate; Four (4) Remote I/O baseplate**
Discrete	**outputs 512**
Discrete	**Input Points - %I 512**
Operating	**temperature 32 to 140 degrees Fahrenheit**
Discrete	**Output Points - %Q 512**
Analog	**Inputs - %AI 128 Words**
Analog	**Outputs - %AQ 64 words**
Built-in	**Serial Ports 1 (uses connector on PLC power supply). Supports SNP slave and SNP-X slave protocols**
Timers	**/ Counters 680**
Interrupts	**No**
Shift	**register Yes**
Current	**load: 350mA**
Bus	**voltage: +5VDC**
The	**IC693CPU331 is a modular CPU that is part of the Series 90-30 PLC of GE Fanuc Automation. This CPU is equipped with a 80188 proces**

3. Product Information

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Technical specifications for IC693CPU331

Brand GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc

Part Number IC693CPU331

Product Description Modular CPU

Product type CPU module

User memory 16 Kbytes

Compatibility GE Fanuc 90-30 PLCs

Processor type 80188

Clock speed 10 Megahertz

Typical scan rate 0.4 ms per 1K of Boolean logic

Microprocessor 80188

Processor speeds 10 MHz

Serial port 1

Expandable Yes

Discrete inputs 512

No. of extension baseplates Four (4) expansion baseplate; Four (4) Remote I/O baseplate

Discrete outputs 512

Discrete Input Points - %I 512

Operating temperature 32 to 140 degrees Fahrenheit

Discrete Output Points - %Q 512

Analog Inputs - %AI 128 Words

Analog Outputs - %AQ 64 words

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

Timers / Counters 680

Interrupts No

Shift register Yes

Current load: 350mA

Bus voltage: +5VDC

The IC693CPU331 is a modular CPU that is part of the Series 90-30 PLC of GE Fanuc Automation. This CPU is equipped with a 80188 processor with processing speed of 10 MegaHertz. It is also capable of scanning 1K of Boolean logic in 0.4 milliseconds. This CPU has 16Kbytes user memory that is sized to accommodate 512 Discrete input bits; 512 Discrete output bits; 128 Words of Analog input and 64 Words of analog outputs. Additionally, this CPU has internal memory structures that is comprised of 1280 bits Discrete global memory; 1024 bits of internal coils; 256 bits of temporary coils; 128 bits of system status references; 2048 words of register memory and 16 Words of System registers. Additionally, there are 680 units of Timers / Counters available to the CPU and supports Shift register instructions. Compared to embedded CPUs, the IC693CPU331 modular CPU supports Override function and comes with a battery backed clock. The default memory type available to this CPU is a Random Access Memory (RAM) type and may also be installed with optional EPROM or EEPROM. The IC693CPU331 can be installed in any CPU baseplate, whether 5-slot or 10-slot baseplate. It can only be installed to the dedicated CPU slot which is slot 1. This module draws current from the backplane amounting to 350 mA @ 5VDC bus voltage. As this modular CPU supports a larger amount of I/O, it supports I/O expansion with the use of up to Four (4) expansion baseplate of Remote I/O baseplate.

The GE Fanuc IC693CPU331 module is a 10 megahertz CPU module for the GE Series 90-30 PLC systems. The IC693CPU331 module uses an 80188 series microprocessor. The operating temperature for the module is from 32 to 140 degrees Celsius. The IC693CPU331 module occupies a single slot in a 5-slot baseplate and it draws 350 milliamps of current from the backplane at 5 Volts DC input voltage. The typical scan rate for the module is 0.4 milliseconds per 1K of Boolean logic. There are 16 words allocated for system registers which are for reference table viewing only and cannot be referenced in the user logic program. The total number of timers and counters supported by the IC693CPU331 module is 680. The type of memory provided on the module for data storage is RAM and optional EPROM or EEPROM. The maximum user program memory is 16 kilobytes. The number of discrete input points is 512. The number of discrete output points is 512. The discrete global memory is 1280 bits. The memory allocated for analog inputs and analog outputs is 128 words and 64 words, respectively. One built-in serial port is available on the IC693CPU331 module and this port is accessible through the power supply PLC connector. The protocols supported by the serial port include the SNP slave and SNPX slave protocols. A separate CMM module is required for SNP master SNP-X master, CCM, and RTU slave support. A separate PCM module is required for RTU master support. An AD693CMM301 module provides 2 additional serial ports for the IC693CPU331 module. An SLP (State Logic Processor) is also compatible with the IC693CPU331 module and it can be used to provide multi-tasking control.