GE Series 90-30 Series Service Manual

IC693CPU352

1. Description

The IC693CPU352 is a Series 90-30 component that is manufactured by GE Fanuc. This is a single-slot modular CPU. It is installed with an 80386EX processor with 25MHz clock speed and maximum user program memory of 240Kbytes. It supports 2048 Discrete Inputs, 2048 Discrete outputs, 32,640 (max) Analog input Words and 32640 Analog output Words (max). It has Three (3) serial ports supporting SNP / SNP-X slave protocols on power supply connector, RTU slave and SNP / SPNX master slave of serial ports

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc**
Part	**Number IC693CPU352**
Product	**Description Modular CPU**
Product	**type CPU module**
User	**memory 240 Kbytes**
Compatibility	**GE Fanuc 90-30 PLCs**
Processor	**type 80386EX**
Clock	**speed 25 Megahertz**
Typical	**scan rate 0.22 ms per 1K of Boolean logic**
Serial	**ports 3**
Processor	**speeds 25 MHz**
Math	**co-processor Yes**
Expandable	**Yes**
Voltage	**input 5 Volts DC**
No.	**of extension baseplates Seven (7) expansion baseplate; Seven (7) Remote I/O baseplate**
Current	**input 910 milliamps**
Discrete	**Input Points - %I 2048**
Operating	**temperature 0 to 60 degrees Celsius**
Discrete	**Output Points - %Q 2048**
Analog	**Inputs - %AI 32,640 (max)**
Analog	**Outputs - %AQ 32,640 (max)**
Built-in	**Serial Ports PLC power supply Port: Supports SNP slave and SNP-X slave protocols; Port 1 and 2: RTU slave, SNP/SNPX master/slave**
Timers	**/ Counters >2000**
Interrupts	**No**
Shift	**register Yes**
Floating	**Point Math: Yes, hardware-based (built-in math co-processor)**
Current	**load: 890 mA**
The	**IC693CPU352 is a modu**

3. Product Information

The IC693CPU352 is a Series 90-30 component that is manufactured by GE Fanuc. This is a single-slot modular CPU. It is installed with an 80386EX processor with 25MHz clock speed and maximum user program memory of 240Kbytes. It supports 2048 Discrete Inputs, 2048 Discrete outputs, 32,640 (max) Analog input Words and 32640 Analog output Words (max). It has Three (3) serial ports supporting SNP / SNP-X slave protocols on power supply connector, RTU slave and SNP / SPNX master slave of serial ports 1 and 2. This processor has typical scan rate of 0.3 milliseconds per 1K of Boolean logic. This processor supports floating point math through the built-in co-processor.

Technical specifications for IC693CPU352

Brand GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc

Part Number IC693CPU352

Product Description Modular CPU

Product type CPU module

User memory 240 Kbytes

Compatibility GE Fanuc 90-30 PLCs

Processor type 80386EX

Clock speed 25 Megahertz

Typical scan rate 0.22 ms per 1K of Boolean logic

Serial ports 3

Processor speeds 25 MHz

Math co-processor Yes

Expandable Yes

Voltage input 5 Volts DC

No. of extension baseplates Seven (7) expansion baseplate; Seven (7) Remote I/O baseplate

Current input 910 milliamps

Discrete Input Points - %I 2048

Operating temperature 0 to 60 degrees Celsius

Discrete Output Points - %Q 2048

Analog Inputs - %AI 32,640 (max)

Analog Outputs - %AQ 32,640 (max)

Built-in Serial Ports PLC power supply Port: Supports SNP slave and SNP-X slave protocols; Port 1 and 2: RTU slave, SNP/SNPX master/slave

Timers / Counters >2000

Interrupts No

Shift register Yes

Floating Point Math: Yes, hardware-based (built-in math co-processor)

Current load: 890 mA

The IC693CPU352 is a module Processor module that is part of GE Fanuc’s Series 90-30 Programmable Logic Controller (PLC). This controller is a single slot CPU module that mounts to a CPU baseplate and supports communicating up to Seven (7) I/O expansion and/or Remote I/O baseplate for maximizing the module’s I/O capacity. The IC693CPU352 front panel is provided with SNP LED indicator, P1 and P2 LED indicators. It has key activated mode selector switch and provided with a total of Three (3) communication ports. One (1) port is located on the power supply connector while Port 1 which is an RJ45 connector and Port 2 which is a 9-pin D-sub connector. The IC693CPU352 supports Floating Point data processing enabled by the built-in co-processor. This is an important feature that enables this controller to process data with fractional or decimal values to provide more accurate measurement and data computation. This can be used by Human Machine Interfaces (HMI) and Supervisory Control and Data Acquisition System (SCADA) for accurate data readout or used by an internal Proportional + Integral + Derivate (PID) controller to implement more accurate and precise control. The IC693CPU352 is equipped with 240 Kbytes user memory if loaded with firmware 9.0 and 80 Kbytes for controllers with firmware prior to release 9. This module has a 25 MHz processor speed with processor type of 80386EX and scan rate of 0.22 ms for every 1K step of Boolean logic. This module is configured using the LogixMaster 90-30, VersaPro or Proficy Machine Edition software.

The IC693CPU352 CPU is a GE Fanuc CPU module with an 80386EX processor. The IC693CPU352 CPU supports floating point math operations through a built-in math co-processor. The IC693CPU352 CPU can be installed in an 8-baseplate system where one slot is taken up by the CPU module and the remaining 7 slots are expansion slots or remote slots. The clock speed of the IC693CPU352 CPU is 25 Megahertz. The scan rate for the module for 1 KB of logic is typically 0.22 milliseconds. The module memory for firmware versions prior to Release 9.0 is 80 KB. However for firmware versions that are Release 9.0 and above, the user memory increases to 240 KB. The available user memory depends on memory that is allocated to the register memory, analog inputs, and analog outputs. There are 3 integrated serial ports available on the IC693CPU352 CPU. Native support for SNP/SNPX slave and RTU slave operation is available. However, a PCM module is required for RTU master support and a CMM module is required for CMM support. The current requirement of the IC693CPU352 CPU at 5 Volts DC input voltage is 910 milliamps. The module does not draw current from the +12 Volts DC power supplies. The heat dissipation rating for the IC693CPU352 CPU is 4.55 Watts. A key switch is provided on the front of the IC693CPU352 CPU to select either the "Run" or "Stop" modes. LED indicators for SNR, Port 1 and Port 2 are also provided on the front of the IC693CPU352 CPU. The shield ground connector is located at the bottom of the module. The CPU firmware is loaded through Port 1 onto the flash memory by using the ladder software supplied with the firmware upgrade kit.