GE RX3i PacSystem Series Service Manual

IC695CPU310

1. Description

The GE Fanuc / Emerson Automation IC693CPU310 is a PACSystem RX3i Processor module. This, processor has 10MB RAM and 10MB non-volatile user memory, processor speed of 300 MHz with typical scan rate of 0.195 ms per 1000 Boolean instructions. This processor has Two (2) serial communication ports supporting RS232 and RS485 communication standards.

2. Specifications

Specification	Value
Brand	**GE Fanuc / Emerson Automation**
Series	**RX3i PacSystem**
Part	**Number IC695CPU310**
Product	**Type CPU module**
Serial	**Ports 2**
NVRAM	**10Megabytes**
Compatibility	**PACSystems RX3i**
Microprocessor	**RX3i VME 300Mhz CPU**
Clock	**Speed 300 MHz**
Switchover	**time Maximum 1 logic scan, minimum 3.133 msec.**
Communication	**standards RS232; RS485**
Maximum	**Program Blocks 512**
Maximum	**Block Size 128 kilobytes**
Batteries	**IC695ACC302 Lithium Smart Battery IC693ACC302 Series 90-30 Auxiliary Battery Module IC698ACC701 Smart Coin Cell Battery Pack**
Maximum	**User Memory 10 Megabytes**
Power	**Requirement 1.25 Amps at 3.3 Volts DC, 1 Amp at 5 Volts DC**
Serial	**Protocols Modbus RTU slave, serial I/O, SNP**
Operating	**Temperature 0 to 60 degrees Celsius**
Execution	**Speed 0.195 milliseconds per 1000 Boolean instructions**
Programming	**Languages Structured text, C, ladder diagram and function block diagram**
The	**IC695CPU310 PACSystems RX3i processor is manufactured by GE Fanuc / Emerson Automation. This processor is a Programmable Automation Contro**

3. Product Information

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Technical specifications for IC695CPU310

Brand GE Fanuc / Emerson Automation

Series RX3i PacSystem

Part Number IC695CPU310

Product Type CPU module

Serial Ports 2

NVRAM 10Megabytes

Compatibility PACSystems RX3i

Microprocessor RX3i VME 300Mhz CPU

Clock Speed 300 MHz

Switchover time Maximum 1 logic scan, minimum 3.133 msec.

Communication standards RS232; RS485

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Serial Protocols Modbus RTU slave, serial I/O, SNP

Operating Temperature 0 to 60 degrees Celsius

Execution Speed 0.195 milliseconds per 1000 Boolean instructions

Programming Languages Structured text, C, ladder diagram and function block diagram

The IC695CPU310 PACSystems RX3i processor is manufactured by GE Fanuc / Emerson Automation. This processor is a Programmable Automation Controller (PAC) that features significant enhancement including an increased RAM, faster microprocessor, faster logic execution time in a more compact and rugged assembly.

The IC695CPU310 features an embedded 10MB user memory and 10MB non-volatile memory. This is significantly higher compared to most available PACs. It also boasts of an Intel Celeron M processor with processing speed of 300 MHz. It can process up to 1000 Boolean instructions in 0.195 ms and supports downloading of up to 512 blocks with each block having 128 MB size. This processor supports data types such as %I and %Q, with each configurable up to 32Kbits for discrete; %AI and %AQ: configurable up to 32Kwords; %W which can be configured up to the maximum available user Random Access Memory (RAM) and Symbolic addresses which are configurable up to 10 Mbytes.

The IC695CPU310 is compatible for use in any of these Two (2) backplanes. These backplanes are Rx3i 16 Slot Universal Backplane with catalog number IC695CHS016 and Rx3i 12 Slot Universal Backplane with catalog number IC695CHS012. Backplane connections are established via PCI slots which provides high-speed data exchange across the backplane. Additionally, the IC695CPU310 supports legacy system migration, providing remote I/O compatibility with the Series 90-30 I/O modules.

The IC695CPU310 has an upgrade firmware. It supports programming using IEC 61131-3 standard programming languages such as Ladder Diagram (LD), Structured Text (ST), Function Block Diagram (FBD), and C language.

The IC695CPU310 module supports integrated RS-232 and RS-485 interfaces. Serial communications protocols supported by the module include the Modbus RTU slave, the serial I/O, and the SNP. The IC695CPU310 module is compatible with both the RX3i PCI backplane and with the Series 90-30 style serial backplane. The CPU module has been designed to be electrically compliant with the PCI 2.2 standards. The CPU supports up to 512 program blocks with a maximum block size of 128 kilobytes. The programming of the IC695CPU310 module can be done in structured text, ladder diagram, and function block diagram formats. The system firmware can be upgraded to enable new and advanced features. Ethernet communications are supported through the rack-based Ethernet interface module with the catalog number IC695ETM001. Time synchronization with the SNTP server is supported over the Ethernet network when the IC695CPU310 module is used with an Ethernet module with firmware version 5.0 or later.