GE RX3i PacSystem Series Service Manual

IC695CPE305

1. Description

The GE Fanuc / Emerson Automation IC695CPE305 is a PACSystem RX3i controller module. This controller has 5MB RAM and 5MB non-volatile user memory, processor speed of 1.1 GHz with typical scan rate of 0.72 ms per 1000 Boolean instructions. This processor has Two (2) serial communication ports supporting RS232 and RS485 communication standards, One (1) Ethernet communication port and One (1) USB 2.0 Master port.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**RX3i PacSystem**
Part	**Number IC695CPE305**
Product	**Type CPU module**
Compatibility	**PACSystems RX3i**
Clock	**Speed 1.1 GHz**
RAM	**5MB**
NVRAM	**10MB**
Switchover	**time Maximum 1 logic scan, minimum 3.133 msec.**
Serial	**Ports 2**
Communication	**standards RS232; RS485**
Ethernet	**Port One (1)**
Maximum	**Program Blocks 512**
Maximum	**Block Size 128 kilobytes**
Operating	**Temperature 0 to 60 degrees Celsius**
Batteries	**IC695ACC302 Lithium Smart Battery IC693ACC302 Series 90-30 Auxiliary Battery Module IC698ACC701 Smart Coin Cell Battery Pack**
Product	**Description PACSystems RX3i CPU**
Number	**of Slots 1**
Number	**of Local Racks 8**
Program	**Storage 5 MB of User Memory**
Type	**of Memory Storage SRAM, Flash**
Processor	**Speed 1.1G Hertz**
Power	**Requirements 1 Amp at +5 and +3.3 Volts DC, 0.5 Amps at +24 Volts DC**
Floating	**Point Yes**
Serial	**Communication RS-232**
Ethernet	**Port Yes**
Protocol	**Support Modbus RTU Slave, SNP, Serial I/O**
Backplane	**Universal backplane**
The	**IC695CPE305 Programmable Automation Controller (PAC) is part of the**

3. Product Information

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Technical specifications for IC695CPE305

Brand GE Fanuc

Series RX3i PacSystem

Part Number IC695CPE305

Product Type CPU module

Compatibility PACSystems RX3i

Clock Speed 1.1 GHz

RAM 5MB

NVRAM 10MB

Switchover time Maximum 1 logic scan, minimum 3.133 msec.

Serial Ports 2

Communication standards RS232; RS485

Ethernet Port One (1)

Maximum Program Blocks 512

Maximum Block Size 128 kilobytes

Operating Temperature 0 to 60 degrees Celsius

Batteries IC695ACC302 Lithium Smart Battery IC693ACC302 Series 90-30 Auxiliary Battery Module IC698ACC701 Smart Coin Cell Battery Pack

Product Description PACSystems RX3i CPU

Number of Slots 1

Number of Local Racks 8

Program Storage 5 MB of User Memory

Type of Memory Storage SRAM, Flash

Processor Speed 1.1G Hertz

Power Requirements 1 Amp at +5 and +3.3 Volts DC, 0.5 Amps at +24 Volts DC

Floating Point Yes

Serial Communication RS-232

Ethernet Port Yes

Protocol Support Modbus RTU Slave, SNP, Serial I/O

Backplane Universal backplane

The IC695CPE305 Programmable Automation Controller (PAC) is part of the PACSystems RX3i automation platform. This controller is manufactured by then GE Fanuc Automation which is now Emerson Automation.

The IC695CPE305 has advanced features that is superior to most PACs of today. This controller features Ethernet communication capability via the One (1) Ethernet communication port that support 10/100 Mbps communication rate which may be used to communicate with Programming workstation, Human Machine Interface (HMI), Supervisory Control and Data Acquisition (SCADA) systems, 3rd party hardware and software products as well as controllers of the same platform for messaging and inter-controller data exchange. Additionally, the Ethernet port supports OPC UA, which allows connection to 3rd party devices via OPC protocol.

The IC695CPE305 is not limited to Ethernet communication as this controller is also integrated with Two (2) serial ports that support the RS232 and RS485 communication standard. It is also equipped with One (1) USB 2.0 master port that allows downloading and uploading of user program from a thumb drive of Smart Phone.

The IC695CPE305 5MB RAM and 5MB non-volatile user memory, processor speed of 1.1 GHz with typical scan rate of 0.72 ms per 1000 Boolean instructions. It supports a variety of network capable protocols such as Ethernet (PROFINET, Ethernet Global Data, Channels, Modbus TCP Server and Client), Genius, PROFIBUS DP, DeviceNet. Up to a maximum of Eight (8) racks is permitted to be controlled by the IC695CPE305, including the CPU rack. This controller supports installation of additional communication cards that support Serial, Genius, CMX (Reflective Memory), and Ethernet.

This single-slot controller and support up to 8 local racks. The IC695CPE305 RX3i Central Processing Unit or CPU is designed to be electrically compliant with the PCI 2.2 standards. It is compatible with a universal backplane, RX3i Series PCI devices, and GE Series 90-30 style serial devices. The power requirements of the module are 1 Amp at 5 Volts DC, 1 Amp at 3.3 Volts DC, and 0.5 Amps at 24 Volts DC. It supports the SNP Slave, Serial I/O, and Modbus RTU Slave serial protocols. The specifications of the Ethernet interface are programmer connections, 10Mb/sec and 100Mb/sec Ethernet data rates, the 10 BaseT RJ-45 configuration, and remote station manager over the UDP. The IC695CPE305 CPU can be installed in any pair of slots in the RX3i main rack except the highest numbered slots. The CPE310 controllers can be easily swapped with CPED305 controllers which fit is capable of accommodating the existing user program in the processor. In order to configure the module, the Proficy Machine Edition Logic Developer 7.0 SIM 3 or later software is required.