GE Versamax Series Service Manual

IC200CPU001

1. Description

The IC200CPU001 is a Central Processing Units (CPU). It is part of the VersaMax platform, currently under Emerson Automation, formerly produced by GE Intelligent Platforms (GE IP). This CPU is a compact controller that supports handling of 2048 Discrete inputs and 2048 Discrete outputs with configurable memory amounting to 34K Bytes which can be used for user program,

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Versamax**
Manufacturer	**Emerson Automation / GE Fanuc (former)**
Manufacturer	**GE Intelligent Platforms (Former); Emerson Automation (Current)**
Part	**Number IC200CPU001**
Series	**VersaMAx**
Series	**VersaMax**
Description	**Configurable CPU**
Product	**type CPU module**
Part	**Number IC200CPU001**
Serial	**Ports 2**
User	**Memory 34K Bytes**
Product	**Description Central Processing Unit (CPU)**
Memory	**34 KB**
Floating	**point math Supported**
Supported	**programming language Ladder Diagram, Instruction list**
Discrete	**Internal Bits 1024 points**
Typical	**Scan Rate 1.8 milliseconds per 1K of logic (boolean contacts)**
Discrete	**Inputs 2048 points**
Discrete	**Temporary Bits 256 points**
Internal	**memory 384Kbytes configurable memory**
Discrete	**Outputs 2048 points**
Boolean	**Execution Speed 1.8 ms / K**
Type	**of Memory Storage RAM and Flash**
Configurable	**Memory 34K Bytes for Program, Registers, I/O Analog Words**
Modbus	**Registers 32**
Temporary	**bits 256 points**
Discrete	**Internal Bits 1024 points**
Real-Time	**Clock Accuracy 100 ppm**
Discrete	**Inpu**

3. Product Information

The IC200CPU001 is a Central Processing Units (CPU). It is part of the VersaMax platform, currently under Emerson Automation, formerly produced by GE Intelligent Platforms (GE IP). This CPU is a compact controller that supports handling of 2048 Discrete inputs and 2048 Discrete outputs with configurable memory amounting to 34K Bytes which can be used for user program,

Technical specifications for IC200CPU001

Brand GE Fanuc

Series Versamax

Manufacturer Emerson Automation / GE Fanuc (former)

Manufacturer GE Intelligent Platforms (Former); Emerson Automation (Current)

Part Number IC200CPU001

Series VersaMAx

Series VersaMax

Description Configurable CPU

Product type CPU module

Part Number IC200CPU001

Serial Ports 2

User Memory 34K Bytes

Product Description Central Processing Unit (CPU)

Memory 34 KB

Floating point math Supported

Supported programming language Ladder Diagram, Instruction list

Discrete Internal Bits 1024 points

Typical Scan Rate 1.8 milliseconds per 1K of logic (boolean contacts)

Discrete Inputs 2048 points

Discrete Temporary Bits 256 points

Internal memory 384Kbytes configurable memory

Discrete Outputs 2048 points

Boolean Execution Speed 1.8 ms / K

Type of Memory Storage RAM and Flash

Configurable Memory 34K Bytes for Program, Registers, I/O Analog Words

Modbus Registers 32

Temporary bits 256 points

Discrete Internal Bits 1024 points

Real-Time Clock Accuracy 100 ppm

Discrete Input 2048

Discrete Temporary Bits 256 points

Backplane Current Consumption 140 mA for 5 Volts, 100 mA for 3.3 Volts

Discrete output 2048

Global Discrete Bits 1280 points

Communication Ports One (1) RS232; One (1) RS485

Supported serial protocols Modbus RTU Slave, SNP, Serial I/O

Supported protocols: SNP Slave, RTU Slave, Serial I/O

Floating Point data Supported

Battery Backed RTC Installed

Override functions Supported

RTC Accuracy 100ppm (0.01%) or +/- 9sec/day

Memory type System flash, battery-backed RAM

The IC200CPU001 is a compact controller from the VersaMax series from Emerson Automation, formerly by GE Intelligent Platforms (GE IP). This is a DIN rail or panel mounted Central Processing Unit (CPU) module that is capable of processing up to 2048 Discrete inputs, 2048 Discrete outputs and a 34 Kbytes of memory that can be allocated for user program, Analog Input and Analog Output data as well as internal registers. This CPU is also equipped with 1024 points of discrete internal bits, 256 points of discrete temporary bits, and 1280 points of Global discrete bits. The IC200CPU001 has typical Boolean execution speed of 1.8 ms / K. It supports Floating point math calculation and data processing, Override functions and comes with a battery-backed Real-Time Clock (RTC) with accuracy of 100ppm (0.01%) or +/- 9sec/day applicable for internal timer and counter instructions and 23ppm (.0023%) or +/- 2sec/day @ 30C; 100 ppm ((0.01%) or +/- 9sec/day @ full temperature range applicable in logic scheduling or schedule based logic sequences. The integrated communication ports available to the IC200CPU001 are One (1) RS232 and One (1) RS485 communication interfaces. These interfaces support a variety of industrial communication protocols such as SNP Slave, RTU Slave and Serial I/O which can be used in implementing distributed I/O architecture, data exchange between Human Machine Interface (HMI), Supervisory Control and Data Acquisitions (SCADA) systems and other applicable and compatible partner devices. These CPU module is configured using CIMPLICITY Machine Edition Logic Developer, VersaPro or Control programmer.

The IC200CPU001 CPU is a user-configurable CPU manufactured by GE Fanuc. It comes with 2 serial ports and 34 KB of configurable memory. The CPU uses non-volatile memory for storing programs. It supports programming in ladder diagrams and instruction lists. It comes with 1024 points for discrete internal bits and 256 points for temporary bits. The global discrete bits of the CPU include 1280 points. The boolean execution speed of the CPU is 1.8 ms/K. The IC200CPU001 CPU supports both floating point and override. The CPU is

equipped with built in RS-232 and RS-485 ports. For internal communication, the CPU uses the SNP slave and the serial I/O protocol. The memory of the CPU is battery-backed and it features a real time clock. The clock timestamps critical time events during the operation. The real-time clock accuracy if 100 ppm at a full temperature range. The GE Fanuc Versamax IC200CPU001 CPU can be easily mounted by using a DIN rail with the power supply. The IC200CPU001 CPU is designed with 32 modbus registers, an enhanced PID function block, and a higher communication output than other CPUs. The CPU has a backplane current consumption rating of 140 milliamps for 5 Volts and 100 milliamps for 3.3 Volts. The front side has LED indicators for different system events. The serial ports of the IC200CPU001 CPU are user configurable by using software. The ports can automatically switch between the RTU and SNP slave mode when needed. A CPU run/stop mode switch is present on the front side behind the module door. It is used to start the CPU or stop it.