GE Service Manual

IC755CBS12CDB

1. Description

The IC755CBS12CDB is a QuickPanel+ Operator terminal with blank bezel. It is part of the Visualization product catalog that is manufactured by Emerson Automation, formerly by GE Intelligent Platforms (GE IP). It functions as a Human Machine Interface (HMI), featuring an embedded 12.1-inch Standard TFT LCD screen with resolution of 800 x 600 pixels. (SVGA). It comes with a projected capacitive touchscreen and Two (2) point multi-touch operator interface; It has an Intel Freescale i.MX535 1 GHz AR

2. Specifications

Specification	Value
Manufacturer	**GE Fanuc Emerson**
Product	**Type Quickpanel+ terminal**
Product	**Line Quickpanel**
Part	**Number IC755CBS12CDB**
Weight	**8.06 lbs (3.66 kg)**
Display	**Size 12.1 inches**
Bezel	**Blank**
Processor	**Intel Freescale i.MX535 1 GHz ARM Cortex A8 processor**
Microprocessor	**ARM A8**
Display	**type Colored TFT Display**
Clock	**Speed 1GHz**
Resolution	**800 x 600 pixels**
RAM	**1 Gigabyte**
Input	**Type Touch**
Ethernet	**Ports 2**
Terminal	**memory 1 GB DDR3 SDRAM; 512 MB SLC NAND ROM; 512 KB SRAM**
Serial	**Ports 2**
Communication	**ports Two (2) Ethernet; One (1) RS232 UART One (1) RS232/ RS485**
USB	**Ports USB Host: Two (2) USB 2.0 (Type-A) USB Device: USB 2.0 (Mini Type-B)**
Two	**(2) Ethernet; One (1) RS232 UART One (1) RS323 / RS485 Removable storage slot:**
1x	**SD/SDHC card slot Operating System**
Windows	**Compact Embedded 7 Bezel Type**
Blank	**Bezel Supply Voltage**
24	**VDC**

3. Product Information

The IC755CBS12CDB is a QuickPanel+ Operator terminal with blank bezel. It is part of the Visualization product catalog that is manufactured by Emerson Automation, formerly by GE Intelligent Platforms (GE IP). It functions as a Human Machine Interface (HMI), featuring an embedded 12.1-inch Standard TFT LCD screen with resolution of 800 x 600 pixels. (SVGA). It comes with a projected capacitive touchscreen and Two (2) point multi-touch operator interface; It has an Intel Freescale i.MX535 1 GHz ARM Cortex A8 processor and integrated memory that is comprised of 1 GB DDR3 SDRAM; 512 MB SLC NAND ROM and 512 KB SRAM. For communication, this device has One (1) Ethernet, One (1) RS232 UART and One (1) RS232 / RS45 communication ports. This terminal operates at an input supply voltage of 24 VDC.

Technical specifications for IC755CBS12CDB

Manufacturer GE Fanuc Emerson

Product Type Quickpanel+ terminal

Product Line Quickpanel

Part Number IC755CBS12CDB

Weight 8.06 lbs (3.66 kg)

Display Size 12.1 inches

Bezel Blank

Processor Intel Freescale i.MX535 1 GHz ARM Cortex A8 processor

Microprocessor ARM A8

Display type Colored TFT Display

Clock Speed 1GHz

Resolution 800 x 600 pixels

RAM 1 Gigabyte

Input Type Touch

Ethernet Ports 2

Terminal memory 1 GB DDR3 SDRAM; 512 MB SLC NAND ROM; 512 KB SRAM

Serial Ports 2

Communication ports Two (2) Ethernet; One (1) RS232 UART One (1) RS232/ RS485

USB Ports USB Host: Two (2) USB 2.0 (Type-A) USB Device: USB 2.0 (Mini Type-B)

Two (2) Ethernet; One (1) RS232 UART One (1) RS323 / RS485 Removable storage slot:

1x SD/SDHC card slot Operating System

Windows Compact Embedded 7 Bezel Type

Blank Bezel Supply Voltage

24 VDC

Description

The IC755CBS12CDB is an operator terminal from Emerson Automation, formerly manufactured by GE Intelligent Platforms (GE IP). This operator terminal, typically referred to as a Human Machine Interface (HMI) mainly features a 12-inch, colored screen with screen resolution of 600 x 800 pixels. This HMI device is mainly used to provide machine or process visualization, designed with a custom graphic representation that represents the monitoring and control points of the connected control system. This HMI graphics published to this device is typically integrated to a programmable Logic Controller (PLC) which hosts the addresses and live data that is being represented by the graphic visualization available to the HMI. To implement data integration with a partner PLC, the IC755CBS12CDB is provided with a variety of communication interfaces particularly, Two (2) Ethernet interface with each port supporting 10/100 mbps of transmission speed at a maximum distance of 100 mbps per segment. In addition, One (1) RS232 UART port and One (1) RS232 / 485 combo port is also provided that may be used for point-to-point and multi-node communication. This operator terminal also comes without a blank bezel, which is a popular choice by Original Equipment Manufacturers (OEM) for specific branding and promotion of capabilities. OEMs may print and mount their own logo to the HMI's blank bezel. This HMI is provided with a touch input interface. This enables users to directly interact with the control system by means of touch actions and gestures. It is also equipped with an Intel Freescale i.MX535 1 GHz ARM Cortex A8 processor and integrated memory that is comprised of 1 GB DDR3 SDRAM; 512 MB SLC NAND ROM and 512 KB SRAM.

The IC755CBS12CDB terminal is a Quickpanel+ industrial operator terminal. The bezel on the terminal is blank. Quickpanel+ terminals support the plug and play feature, which enables their use with I/O and controllers from multiple vendors. In addition to supporting the attachment of external media, the USB ports also support the USB to serial, USB to WiFi, and USB to Ethernet protocols. Serial ports RS-232 and RS-485 support the ASCII slave, SNP slave, and Modbus RTU slave and application-specific protocols. The Ethernet ports support multiple link layer, Internet layer, transport layer, and application layer protocols, and some of the supported protocols include the LLDP, IPv4, IPv6, TCP, IDP, Profinet I/O, Telnet server, and SNTP protocols. Five IEC programming languages are supported, including the structured text, function block diagram, instruction list, relay ladder, and sequential function chart programming languages. The IC755CBS12CDB terminal uses a 1 Gigahertz A8 CPU from ARM, it includes 1 GB of RAM, and it runs the Windows Embedded Compact 7 operating system. The display is a 12-inch TFT LCD which supports the projected capacitive touch. Two Ethernet ports, 2 serial ports, and 3 USB ports are available on the terminal for communication. Both serial ports have a 5-pin connector. Both +12 Volts DC and +24 Volts DC can be used to power the IC755CBS12CDB terminal. The power consumption rating can reach a maximum of 30 Watts. The physical specifications for the IC755CBS12CDB terminal include dimensions of 314 x 248 x 65 millimeters and 3 kilograms of weight. The cooling methodology employed by the terminal is natural convection cooling. For optimal performance, the ambient temperature around the IC755CBS12CDB terminal should be kept between 0 and 55 degrees Celsius.