

Schneider Series Service Manual

140CPU11303C

1. Description

The 140CPU11303C is a processor module from Schneider Electric's Modicon Quantum series, featuring a robust 80186 microprocessor. It operates at a clock frequency of 20 MHz and includes 368 KB of internal RAM, ensuring sufficient memory for processing tasks.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon Quantum
Part	Number 140CPU11303C
EAN	3595861135833
Product	Processor Module
Processor	Type 80186
Clock	Frequency 20 MHz
Internal	RAM 368 KB
Watchdog	Timer 250 ms
Clock	Drift ±8 s/day at 0 to 60°C
I/O	Words 64 I/64 O remote, 64 I/64 O max local, 30 I/32 O distributed
I/O	Words/Network 500 I/500 O distributed
Number	of Drops 31 remote
Number	of Networks 3 distributed, 2 remote
Battery	Type Lithium 7 µA 210 µA
Battery	Capacity 1.2 Ah
Battery	Life 10 years
Number	of Ports 1 Modbus Plus, 1 Modbus RS232
Communication	Module Processor 2 NOM, NOE, CR, NMS

3. Product Information

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Technical specifications for 140CPU11303C

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Product Line Modicon Quantum

Part Number 140CPU11303C

EAN 3595861135833

Product Processor Module

Processor Type 80186

Clock Frequency 20 MHz

Internal RAM 368 KB

Watchdog Timer 250 ms

Clock Drift ±8 s/day at 0 to 60°C

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Number of Drops 31 remote

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Battery Type Lithium 7 µA 210 µA

Battery Capacity 1.2 Ah

Battery Life 10 years

Number of Ports 1 Modbus Plus, 1 Modbus RS232

Communication Module Processor 2 NOM, NOE, CR, NMS

Description

The processor module 140CPU11303C from the Modicon Quantum series by Schneider Electric utilizes an 80186 processor architecture, characterized by its efficient 20 MHz clock speed. This module is equipped with 368 KB of RAM to facilitate operational tasks across various industrial environments.

To ensure system reliability, the built-in watchdog timer is set to 250 milliseconds, providing essential monitoring for system stability. Timekeeping accuracy is maintained with a clock drift rating of ±8 seconds per day when operating within a temperature range of 0 to 60 degrees Celsius.

This module supports a variety of I/O configurations, allowing for up to 64 input and output words on both remote and local systems, with an added capacity for 30 I/O words distributed across the network. The 140CPU11303C can manage 500 input and output words in a distributed setting, providing flexibility for extensive automation systems.

The architecture integrates up to 31 remote drops across three distributed and two remote networks, facilitating robust connectivity. A lithium battery is included, with a capacity of 1.2 Ah, designed to operate at a minimal current of 7 µA and a maximum of 210 µA. The battery life expectancy is around 10 years, ensuring long-term operation without frequent maintenance.

Communication options are enhanced with one Modbus Plus and one RS232 port, contributing to its compatibility within existing networks. The communication module processor supports various configurations, including two NOM, NOE, CR, and NMS communications, further augmenting the system's versatility for diverse application requirements.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Processor

Software name

Concept

ProWORX 32

Processor name

80186

Mathematical coprocessor

Without

Complementary

Clock frequency

20 MHz

Memory description

Internal RAM 368 kB

Exact time for 1 Kinstruction

0.3...1.4 ms LL984

Watchdog timer

250 ms

Clock drift

+/-8 s/day 32...140 °F (0...60 °C)

I/O words

30 I/32 O distributed

64 I/64 O max local

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64 I/64 O remote
I/O words/network
500 I/500 O distributed
Drops/network
63 distributed
Number of drops
31 remote
Number of network
2 remote
3 distributed
Battery type
Lithium 7 μ A 210 μ A
Battery Capacity
1.2 Ah
Battery Life
10 year(s)
Number of port
1 Modbus RS232
1 Modbus Plus
Communication module processor capacity
2 NOM, NOE, CR, NMS
Switch Function
Without key switch
Marking
CE
Bus current requirement
790 mA
Module format
Standard
Net Weight
0.7 lb(US) (0.3 kg)
Environment
Protective treatment
Conformal coating Humiseal 1A33
Product Certifications
cUL
FM Class 1 Division 2
Standards
CSA C22.2 No 142
UL 508
Resistance to electrostatic discharge
4 kV contact IEC 801-2
8 kV on air IEC 801-2
Resistance to electromagnetic fields
9.1 V/m (10 V/m) 80...2000 MHz IEC 801-3
Ambient Air Temperature for Operation
32...140 °F (0...60 °C)
Ambient Air Temperature for Storage
-40...185 °F (-40...85 °C)
Relative Humidity
95 % without condensation
Operating altitude
<= 16404.2 ft (5000 m)
Ordering and shipping details
Category
18150-QUANTUM CONTROLLERS,HSBY,COMM.
Discount Schedule
PC21
GTIN

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3595861135833
Returnability
No
Country of origin
FR
Packing Units
Unit Type of Package 1
PCE
Nbr. of units in pkg.
1
Package 1 Height
2.0 in (5.0 cm)
Package 1 Width
6.5 in (16.5 cm)
Package 1 Length
12.2 in (31.0 cm)
Package weight(Lbs)
25.4 oz (720.0 g)

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