

Schneider Series Service Manual

140CPU21304C

1. Description

The 140CPU21304C is a CPU module from Schneider Electric's Modicon Quantum series, suitable for harsh environments due to its conformal coating. With 768 KB of RAM and 16 KB of program memory, it supports both local and remote I/O, making it versatile for various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type CPU Module
Product	Line Modicon Quantum
Part	Number 140CPU21304C
Coating	Type Conformal Coated (Harsh Env)
Mounting	Type Rack-mounted
Math	Instructions Supported
RAM	768 KB
Modbus	Port 1 x RS232
Battery-backed	RAM Yes
Execution	Time (Boolean) ~0.3 µs
Watchdog	Function Integrated
Modbus	Plus Port 1 x Modbus Plus
Program	Memory 16 KB
I/O	Support Local and Remote
Status	LEDs RUN, ERR, I/O, COMM
Operating	Temp 0...60°C

3. Product Information

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Technical specifications for 140CPU21304C

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Product Line Modicon Quantum

Part Number 140CPU21304C

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Mounting Type Rack-mounted

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RAM 768 KB

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Battery-backed RAM Yes

Execution Time (Boolean) ~0.3 µs

Watchdog Function Integrated

Modbus Plus Port 1 x Modbus Plus

Program Memory 16 KB

I/O Support Local and Remote

Status LEDs RUN, ERR, I/O, COMM

Operating Temp 0...60°C

Description

The Modicon Quantum series features the 140CPU21304C, a highly capable CPU module designed for flexibility in demanding environments. This unit is equipped with a conformal coating that provides protection against harsh conditions. It is rack-mounted and supports advanced math instructions, making it suitable for various computational tasks. A substantial RAM capacity of 768 KB is available, complemented by 16 KB of program memory, which aids in efficient data handling and processing. The execution time for Boolean operations is approximately 0.3 microseconds, ensuring quick response times for applications requiring rapid processing. Integrated battery-backed RAM allows for data retention during power outages, enhancing reliability. Communication options are diverse, featuring one RS232 Modbus port and one Modbus Plus port, facilitating connectivity within industrial networks. The CPU supports both local and remote I/O configurations, which expand its use in different system architectures. This module is designed to operate within a temperature range of 0 to 60°C, ensuring reliable performance in various environmental conditions. Status LEDs provide real-time feedback with indicators for RUN, ERR, I/O, and COMM, allowing for easy monitoring of operational status.