

Schneider 140CPU53414BC Manual

Brand	Schneider
Product Series	Schneider
Product Type	Lithium 10 μ A 420 μ A

Description

The Schneider Electric 140CPU53414BC is a processor from the Modicon Quantum series, notable for its efficient performance in industrial applications. Operating with a clock frequency of 100 MHz, it contains an internal RAM of 2972 kB, allowing for robust processing capabilities.

Technical specifications for 140CPU53414BC

Manufacturer Schneider Electric

Product Line Modicon Quantum

Part Number 140CPU53414BC

Product Processor

Clock Frequency 100 MHz

Memory Internal RAM 2972 kB

Watchdog Timer 250 ms

I/O Words/Network 500 I/500 O distributed

Drops/Network 63 distributed

Number of Drops 31 Remote

Battery Type Lithium 10 μ A 420 μ A

Battery Capacity 1.2 Ah

Switch Function Key Switch

Bus Current Requirement 1250 mA

Resistance to Electrostatic Discharge 4 kV and 8 kV

Resistance to Electromagnetic Fields 10 V/m

Ambient Air Temperature for Operation 0 to 60 degrees Celsius

Description

The 140CPU53414BC processor from Schneider Electric is crafted for demanding industrial control environments as part of the Modicon Quantum series. This processor features a significant clock frequency of 100 MHz, enabling it to handle processing tasks efficiently. It is equipped with an internal RAM of 2972 kB, providing ample memory to support various applications.

A key feature of this processor is the watchdog timer, which operates at 250 ms to ensure system reliability. The device efficiently manages input and output operations, supporting 500 I/O words per network configuration. With the capability to manage 63 distributed drops and support 31 remote drops, it offers substantial flexibility in network setup.

For powering requirements, the 140CPU53414BC processor necessitates a bus current of 1250 mA. Its lithium battery type is rated for a capacity of 1.2 Ah, with a discharge rate of 10 μ A to 420 μ A, ensuring dependable long-term performance. The processor also incorporates a key switch function for secure operations.

Robustness is a key aspect of this unit, as it demonstrates resistance to both electrostatic discharges rated at 4 kV and 8 kV and can withstand electromagnetic fields measuring up to 10 V/m. Designed for diverse operational conditions, it can function within an ambient temperature range of 0 to 60 degrees Celsius. Weighing in at 0.85 kg, the 140CPU53414BC is a compact yet powerful solution for enhancing control in various industrial settings.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Processor

Software name

ProWORX 32

Concept

Processor name

80486

Mathematical coprocessor

With

Complementary

Clock frequency

100 MHz

Memory description

Internal RAM 2972 kB

Exact time for 1 Kinstruction

0.1...0.5 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

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 10 μ A 420 μ A

Battery Capacity

1.2 Ah

Battery Life

10 year(s)

Switch Function

Key switch

Marking

CE

Bus current requirement

1250 mA

Module format

Standard

Net Weight

www.AutoDCSTech.com

1.87 lb(US) (0.85 kg)

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product Certifications

FM Class 1 Division 2

cUL

Standards

UL 508

CSA C22.2 No 142

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

3595863917093

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

12.4 in (31.5 cm)

Package weight(Lbs)

22.4 oz (634.0 g)

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