

Schneider Series Service Manual

140CRA21100

1. Description

The 140CRA21100, part of Schneider Electric's Modicon Quantum series, is an interface module equipped with a DIO drop interface. It operates with a supply voltage rating of 115/230 VAC and can handle input voltages from 85 to 276 VAC, making it versatile for various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon Quantum
Part	Number 140CRA21100
Description	of Module Interface Module
Interface	Type DIO drop interface
Number	of Ports 1
Supply	Voltage 115/230 VAC
Operational	Supply Voltage Limit 85 to 276 VAC
Supply	Frequency 47 to 63 Hz
Maximum	Supply Current 0.2 A at 115 V and 0.4 A at 230 V
Inrush	Current 10 A at 115 V and 20 A at 230 V
Rated	Power 50 VA
Associated	Fuse Rating 1.5 A
Output	Voltage 5.1 V
Nominal	Output Current 3 A
I/O	Words 30 input words and 32 output words
Short-Circuit	Protection With
Output	Overvoltage Protection With

3. Product Information

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Technical specifications for 140CRA21100

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Product Line Modicon Quantum

Part Number 140CRA21100

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Operational Supply Voltage Limit 85 to 276 VAC

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Rated Power 50 VA

Associated Fuse Rating 1.5 A

Output Voltage 5.1 V

Nominal Output Current 3 A

I/O Words 30 input words and 32 output words

Short-Circuit Protection With

Output Overvoltage Protection With

Range of product

Modicon Quantum automation platform

Product or component type

DIO drop interface

Complementary

Number of port

1 single

[Us] rated supply voltage

115/230 V AC

Supply voltage limits

85...276 V

Supply frequency

47...63 Hz

Maximum supply current

0.2 A 115 V

0.4 A 230 V

Inrush current

10 A 115 V

20 A 230 V

Rated power in VA

50 VA

Associated fuse rating

1.5 A

Output voltage

5.1 V

nominal output current

3 A

Minimum load current

0 A

Short-circuit protection

With

Output overvoltage protection

With

I/O words

30 I/32 O

Typical backplanes

16 positions

6 positions

3 positions

2 positions

4 positions

10 positions

Diagnostics startup

RAM address

Checksum

RAM

Diagnostics run time

RAM address

RAM

Checksum

Power dissipation in W

11 W

Connections - terminals

Terminal block, 7 poles

Module format

Standard

Environment

Resistance to electrostatic discharge

4 kV contact IEC 801-2

8 kV on air IEC 801-2

Resistance to electromagnetic fields

9.1 V/yd (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

<= 5000 m

Protective treatment

TC

Standards

UL 508

Product certifications

GOST

C-Tick

UL

DNV

CSA Class 1 Division 2

Description

The Schneider Electric 140CRA21100 is designed as an interface module within the Modicon Quantum series. This unit operates via a DIO drop interface and accommodates a single port for streamlined connectivity. The module supports a primary supply voltage of either 115 or 230 VAC, while also accepting a wide operational voltage range between 85 and 276 VAC, which enhances its flexibility.

With a specified supply frequency of 47 to 63 Hz, it is capable of managing numerous electrical conditions. The maximum supply current is rated at 0.2 A for 115 V and 0.4 A for 230 V, with an inrush current of up to 10 A at 115 V and 20 A at 230 V. This interface module has a total rated power output of 50 VA, and it requires a fuse rated at 1.5 A for effective protection.

The module outputs a voltage of 5.1 V while providing a nominal output current of 3 A, thereby supporting adequate functionality for connected devices. It is configured with 30 input words and supports 32 output words, accommodating diverse operational requirements. The design includes essential protective features such as short-circuit protection and output overvoltage protection, safeguarding the module and connected equipment during operation.