

Schneider  Series Service Manual

140CPS21400C

1. Description

The 140CPS21400C power supply module from Schneider Electric's Modicon Quantum series operates efficiently with an input voltage between 20 and 30 volts DC. It can handle an input current of 3800 mA and provides a stable output voltage of 5.1 volts DC for various applications.

2. Specifications

| Specification | Value                                             |
|---------------|---------------------------------------------------|
| Manufacturer  | Schneider Electric                                |
| Product       | Line Modicon Quantum                              |
| Part          | Number 140CPS21400C                               |
| EAN           | 3595861136007                                     |
| Name          | Power Supply Module                               |
| Input         | Voltage 24 V (20...30 V) DC                       |
| Input         | Current 3800 mA                                   |
| Inrush        | Current 14 A at 20 V; 25 A at 24 V                |
| Max.          | Input Power Interruption 100 ms; 1 ms at 20 V     |
| Associated    | Fuse Rating 5 A                                   |
| Output        | Voltage 5.1 V DC                                  |
| Power         | Supply Output Current 8 A summable                |
| Resistance    | to Electromagnetic Fields 10 V/m at 80...2000 MHz |
| Relative      | Humidity 95 % without condensation                |
| Operating     | Altitude <= 5000 m                                |
| Ambient       | Air Temperature for Operation 0...60 °C           |
| Resistance    | to Electrostatic Discharge 4 kV                   |

3. Product Information

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Technical specifications for 140CPS21400C

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Product Line Modicon Quantum

Part Number 140CPS21400C

EAN 3595861136007

Name Power Supply Module

Input Voltage 24 V (20...30 V) DC

Input Current 3800 mA

Inrush Current 14 A at 20 V; 25 A at 24 V

Max. Input Power Interruption 100 ms; 1 ms at 20 V

Associated Fuse Rating 5 A

Output Voltage 5.1 V DC

Power Supply Output Current 8 A summable

Resistance to Electromagnetic Fields 10 V/m at 80...2000 MHz

Relative Humidity 95 % without condensation

Operating Altitude <= 5000 m

Ambient Air Temperature for Operation 0...60 °C

Resistance to Electrostatic Discharge 4 kV

Description

Schneider Electric's 140CPS21400C is a power supply module designed for reliable operation in various environments. It accepts an input voltage of 24 V DC, with a permitted range from 20 V to 30 V and consumes an input current of 3800 mA. The module exhibits a notable inrush current of 14 A when the input voltage is at 20 V and 25 A at 24 V, allowing for robust initial operation when powered on.

Output stability is ensured, with the module supplying 5.1 V DC at a maximum output current capacity of 8 A, making it suitable for demanding applications. The design incorporates an associated fuse rating of 5 A and can handle an input power interruption of 100 milliseconds, or as brief as 1 millisecond at 20 V. Resistance to electromagnetic fields is adequate, rated at 10 V/m across frequencies from 80 to 2000 MHz, ensuring compatibility in environments with potential interference.

The 140CPS21400C can function under ambient conditions with temperatures ranging from 0 to 60 °C and can be installed at altitudes of up to 5000 meters. Additionally, it withstands relative humidity levels of up to 95% without condensation. Electrostatic discharge resistance is rated at 4 kV, contributing to its reliability in industrial settings.

At a net weight of 0.65 kg and dimensions of 16.8 cm high, 4.5 cm wide, and 37.2 cm long, this module is designed for ease of integration into control systems. This makes it an essential component for power management in Schneider Electric's Modicon Quantum installations.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Power supply module

Power supply type

Summable

Complementary

Input voltage

24 V 20...30 V) DC

Input current

3800 mA

Inrush current

14 A 20 V

25 A 24 V

Maximum input power interruption

100 ms

1 ms 20 V

Associated fuse rating

5 A, slow-blow

Output voltage

5.1 V DC

Power supply output current

8 A summable

Output overvoltage protection

Internal

Output overload protection

Internal

Power dissipation

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6 + (1.8 x Iout) where Iout is in A

Alarm output

1 NC 6 A 220 V power supply fault

Local signalling

1 LED (green) for power (PWR OK)

Marking

CE

Module format

Standard

Net Weight

1.43 lb(US) (0.65 kg)

Environment

Protective treatment

Conformal coating Humiseal 1A33

Standards

CSA C22.2 No 142

UL 508

Product Certifications

cUL

FM Class 1 Division 2

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

US1PC2118155

Discount Schedule

PC21

GTIN

3595861136007

Returnability

No

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

6.4 in (16.3 cm)

Package 1 Width

1.8 in (4.5 cm)

Package 1 Length

12.3 in (31.2 cm)

Package weight(Lbs)

29.1 oz (825.0 g)

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