

# Schneider Series Service Manual

## 140CPS52400C

### 1. Description

The Schneider Electric 140CPS52400C is a power supply module within the Modicon Quantum series. It operates with a nominal input of 125 V DC and can accept input voltages between 100 to 150 V DC, making it versatile for different applications.

### 2. Specifications

| Specification | Value                                                                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer  | Schneider Electric                                                                                                                                                                                                                                                                                         |
| Product       | Type Power Supply Module                                                                                                                                                                                                                                                                                   |
| Product       | Line Modicon Quantum                                                                                                                                                                                                                                                                                       |
| Part          | Number 140CPS52400C                                                                                                                                                                                                                                                                                        |
| UPC           | 785901556015                                                                                                                                                                                                                                                                                               |
| Nominal       | Input 125 V DC                                                                                                                                                                                                                                                                                             |
| Input         | Voltage 100-150 V DC                                                                                                                                                                                                                                                                                       |
| Inrush        | Current 28 A @ 125 V                                                                                                                                                                                                                                                                                       |
| Output        | Current 8 A                                                                                                                                                                                                                                                                                                |
| Input         | Current 0.5 A                                                                                                                                                                                                                                                                                              |
| Hold-up       | Time ≤ 1 ms                                                                                                                                                                                                                                                                                                |
| Power         | Dissipation 6 + (1.5 × Iout) W                                                                                                                                                                                                                                                                             |
| Fuse          | Rating 2 A slow-blow                                                                                                                                                                                                                                                                                       |
| Overvoltage   | Protection Internal                                                                                                                                                                                                                                                                                        |
| Output        | Voltage 5.1 V DC                                                                                                                                                                                                                                                                                           |
| Overload      | Protection Internal                                                                                                                                                                                                                                                                                        |
| Marking       | CE                                                                                                                                                                                                                                                                                                         |
| Local         | Signaling 1 LED green (PWR OK)                                                                                                                                                                                                                                                                             |
| Description   |                                                                                                                                                                                                                                                                                                            |
| Schneider     | Electric's 140CPS52400C power supply module is engineered for reliability in various industrial applications. It supports a nominal input voltage of 125 V DC, with an operational range from 100 to 150 V DC. This ability to handle a wide range of input voltages makes it suitable for diverse setups. |

### 3. Product Information

The Schneider Electric 140CPS52400C is a power supply module within the Modicon Quantum series. It operates with a nominal input of 125 V DC and can accept input voltages between 100 to 150 V DC, making it versatile for different applications.

Technical specifications for 140CPS52400C

Manufacturer Schneider Electric

Product Type Power Supply Module

Product Line Modicon Quantum

Part Number 140CPS52400C

UPC 785901556015

Nominal Input 125 V DC

Input Voltage 100–150 V DC

Inrush Current 28 A @ 125 V

Output Current 8 A

Input Current 0.5 A

Hold-up Time  $\leq 1$  ms

Power Dissipation  $6 + (1.5 \times I_{out})$  W

Fuse Rating 2 A slow-blow

Overvoltage Protection Internal

Output Voltage 5.1 V DC

Overload Protection Internal

Marking CE

Local Signaling 1 LED green (PWR OK)

Description

Schneider Electric's 140CPS52400C power supply module is engineered for reliability in various industrial applications. It supports a nominal input voltage of 125 V DC, with an operational range from 100 to 150 V DC. This ability to handle a wide range of input voltages makes it suitable for diverse setups.

The inrush current at 125 V is rated at 28 A. It outputs a stable current of 8 A, with an input current drawing just 0.5 A, ensuring efficient operation. This module is designed to deliver an output voltage of 5.1 V DC, which is crucial for powering connected devices.

A significant feature of this power supply is its hold-up time, which is  $\leq 1$  ms, ensuring that the output voltage remains stable during brief interruptions. Power dissipation is calculated as  $6 + (1.5 \times I_{out})$  W, which assists in maintaining thermal safety. Internal protections for both overload and overvoltage conditions enhance reliability, working to safeguard connected equipment. The device has a slow-blow fuse rating of 2 A to offer additional protection against unexpected currents.

For user visibility, the power supply is equipped with a local signaling feature, incorporating a green LED that indicates when the power is okay (PWR OK). The unit boasts a CE marking, indicating compliance with European safety standards, making it a dependable choice for industrial power supply applications.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Power supply module

Power supply type

Redundant

Complementary

Input voltage

125 V 100...150 V) DC

Input current

500 mA 125 V

Inrush current

28 A 125 V

Maximum input power interruption

1 ms

Associated fuse rating

2 A, slow-blow

Output voltage

5.1 V DC

Power supply output current

8 A redundant

Output overvoltage protection

Internal

Output overload protection

Internal

Power dissipation

$6 + (1.5 \times I_{out})$  where  $I_{out}$  is in A

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

18155-QUANTUM I/O & POWER SUPPLIES

Discount Schedule

PC21

GTIN

3595861137448

Returnability

No

Country of origin

CN

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

1.8 in (4.5 cm)

Package 1 Width

6.5 in (16.5 cm)

Package 1 Length

12.4 in (31.5 cm)

Package weight(Lbs)

32.3 oz (915.0 g)