

Schneider Series Service Manual

140DRC83000C

1. Description

The 140DRC83000C is a discrete output module from Schneider Electric's Modicon Quantum series. This unit offers eight output channels and supports multiple voltage ranges, making it versatile for various applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Discrete output module
Product	Line Modicon Quantum
Part	Number 140DRC83000C
EAN	3595861136168
Output	Channels 8
Contacts	Type and Composition 1 NO/NC
Contact	Form Form C
Addressing	Requirement 0.5 output word
Discrete	Output Voltage 20...250 V AC, 30...150 V DC, 5...30 V DC
Surge	Current 20 A
Mechanical	Durability 10,000,000 cycles
Marking	CE
Format	Standard
Bus	Current Requirement 560 mA
Ambient	Temperature 0 to 60 °C
Standards	UL 508, CSA
Protective	Treatment Conformal coating

3. Product Information

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Technical specifications for 140DRC83000C

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Product Line Modicon Quantum

Part Number 140DRC83000C

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Contact Form Form C

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Format Standard

Bus Current Requirement 560 mA

Ambient Temperature 0 to 60 °C

Standards UL 508, CSA

Protective Treatment Conformal coating

Description

The Schneider Electric 140DRC83000C is engineered as a discrete output module within the Modicon Quantum lineup. It is designed to operate efficiently with eight individual output channels. The contact structure consists of one Normally Open (NO) and one Normally Closed (NC) contact, categorized under Form C types. This flexibility provides adaptability for various control tasks.

The output voltage specifications are broad, accommodating 20 to 250 V AC, along with options for 30 to 150 V DC and 5 to 30 V DC. This flexibility allows for integration into multiple systems. Surge currents can reach up to 20 A, ensuring robust performance under transient conditions.

The module is notable for its mechanical durability, boasting up to 10 million operational cycles, which underscores its reliability in demanding environments. It requires an addressing requirement of 0.5 output word to facilitate integration during setup. The weight of the device is a manageable 0.3 kg, and it draws a bus current of 560 mA for efficient functioning.

Designed to perform in ambient temperatures ranging from 0 to 60 °C, this module is suitable for numerous applications. It features a CE marking and includes conformal coating to enhance protective treatment, ensuring longevity and consistent functionality. Additionally, compliance with UL 508 and CSA standards verifies its safety for industrial use.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Relay discrete output module

Discrete output number

8

Complementary

Contacts type and composition

1 NO/NC

Contact form

Form C

Discrete output voltage

20...250 V AC

30...150 V DC

5...30 V DC

Addressing requirement

0.5 output word

Maximum load current

100 mA 30...50 V DC L/R = 10 ms

2 A 250/30 V AC/DC tungsten 1/4 hp cos phi = 0.4

3 A 250/30 V AC/DC

300 mA 30...50 V DC resistive

5 A 250/30 V AC/DC resistive 140 °F (60 °C)

Surge current

20 A 10 ms capacitive

Switching frequency

30 Hz resistive

F = 0.5/PL inductive

Switching capacity in VA

1250 VA resistive

Maximum response time on input open

10 ms at state 0 to state 1

20 ms at state 1 to state 0

Mechanical durability

10000000 cycles

Electrical durability

100000 cycles 100 mA 30...150 V DC L/R = 10 ms

100000 cycles 30...150 V DC interposing relay

100000 cycles 300 mA 30...150 V DC resistive

100000 cycles 5 A 30 V DC resistive

200000 cycles 5 A 250 V AC resistive

50000 cycles 500 mA 30...150 V DC resistive

Output overvoltage protection

Internal by varistor, 275 V

Isolation between channels

1780 Vrms AC for 1 minute

2500 V DC

Isolation between channels and bus

1780 Vrms AC for 1 minute

2500 V DC for 1 minute

Power dissipation

2.75 W + (0.5 x the number of points on)

Marking

CE

Local signalling

1 LED (green) for bus communication is present (Active)

1 LED (red) for external fault detected (F)

8 LEDs (green) for input status

Bus current requirement

560 mA

Module format

Standard

Net Weight

0.7 lb(US) (0.3 kg)

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product Certifications

RINA

FM Class 1 Division 2

GOST

C-tick

DNV

GL

RMRS

ABS

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

US1PC2118155

Discount Schedule

PC21

GTIN

3595861136168

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)

17.6 oz (498 g)