Schneider □□□ Series Service Manual

140CPU67261C

1. Description

The 140CPU67261C Unity Hot Standby Processor from Schneider Electric's Modicon Quantum series is engineered for reliable operational continuity. Equipped with a 266 MHz clock frequency, it ensures efficient processing power and includes integrated support for dual local racks.

2. Specifications

Specification	Value
Manufacturer	**Schneider Electric**
Product	**Type Unity Hot Standby Processor**
Product	**Line Modicon Quantum**
Part	**Number 140CPU67261C**
Transmission	**Mode Single-Mode Ethernet Backbone**
Processor	**Speed 266 MHz Clock Frequency**
Modular	**Slot Support Configurations for 2, 4, 6, 10, or 16 slots**
Local	**Rack Capacity Dual local rack integration**
Distributed	**I/O Capacity 63 stations (1 rack, 3 Modbus Plus networks)**
Remote	**I/O Support 31 stations per network (S908, Quantum, X80 protocols)**
Discrete	**I/O Points 31,744 remote I/O; 8,000 distributed I/O per network**
Analog	**I/O Points 1,984 remote I/O; 500 distributed I/O per network**
Communication	**Protocols Ethernet TCP/IP, Modbus Plus, Profibus DP, USB, fiber optic**
Maximum	**Network Connections 6 Ethernet, 6 Modbus Plus, 6 Profibus DP, 1 USB**
Memory	**Capacity 11,264 kB RAM (1,536 kB dedicated to data); expandable via 8 MB PCMCIA**
Processing	**Performance 10.28K Boolean or 10.07K mixed instructions per millisecond**
Power	**Consumption 2,760 mA bus current requirement**
Redund	

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Technical specifications for 140CPU67261C

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Product Type Unity Hot Standby Processor

Product Line Modicon Quantum

Part Number 140CPU67261C

Transmission Mode Single-Mode Ethernet Backbone

Processor Speed 266 MHz Clock Frequency

Modular Slot Support Configurations for 2, 4, 6, 10, or 16 slots

Local Rack Capacity Dual local rack integration

Distributed I/O Capacity 63 stations (1 rack, 3 Modbus Plus networks)

Remote I/O Support 31 stations per network (S908, Quantum, X80 protocols)

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Processing Performance 10.28K Boolean or 10.07K mixed instructions per millisecond

Power Consumption 2,760 mA bus current requirement

Redundancy Configuration Hot Standby support for fault-tolerant operation

Description

The Schneider Electric 140CPU67261C operates as a robust Unity Hot Standby Processor, designed specifically for seamless integration within the Modicon Quantum series. It operates with a clock speed of 266 MHz, providing efficient processing suited for complex control environments. This processor is adaptable to various configurations with modular slot support, offering options for 2, 4, 6, 10, or even 16 slots to establish a tailored setup that meets specific system needs.

Additionally, it features dual local rack integration, enhancing the local rack capacity for better performance. The modularity extends to distributed I/O capabilities, allowing up to 63 stations through a single rack and accommodating three Modbus Plus networks. Furthermore, the device supports remote I/O configurations with a capacity of 31 stations per network across S908, Quantum, and X80 protocols.

The 140CPU67261C handles significant input and output volumes, supporting 31,744 remote I/O points and 8,000 distributed I/O points per network. Analog operations are covered as well, with the processor managing up to 1,984 analog remote I/O points and 500 per network.

Communications are efficient via supported networks such as Ethernet TCP/IP, Modbus Plus, Profibus DP, USB, and fiber optic. The unit permits a maximum of six network connections for each communication type, including Ethernet and Modbus Plus, which enhances connectivity and flexibility. Its memory capacity includes 11,264 kB of RAM, with 1,536 kB allocated for data, and it can be expanded via an 8 MB PCMCIA card.

In terms of performance, it processes approximately 10.28K Boolean or 10.07K mixed instructions every millisecond, ensuring responsive control and data handling. The unit operates with a bus current of 2,760 mA, substantial enough for various industrial applications. Notably, the hot standby configuration provides redundancy support for fault-tolerant operations, ensuring uninterrupted service during failures.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Unity processor

Complementary

Mode of Transmission

Single mode

Clock frequency

266 MHz

Number of slots

10

16

4

2

6

Number of racks

2 - local

Number of distributed I/O station

63 1 3 Modbus Plus

Number of remote I/O station

31 - 2 S908 remote I/O

31 - 2 ethernet Quantum remote I/O

31 - 2 ethernet X80 remote I/O

Discrete I/O number

31744 inputs, 31744 outputs - remote

8000 inputs, 8000 outputs - distributed - per network Modbus Plus

Unlimited (31 drops of 28 slots max) - ethernet remote I/O

0 - local - forbidden in Hot Standby application

Analogue I/O number

500 inputs, 500 outputs - distributed - per network Modbus Plus

Unlimited (31 drops of 28 slots max) - ethernet remote I/O

1984 inputs,1984 outputs - remote

0 - local - forbidden in Hot Standby application

Application specific I/O

Accurate time stamping

Counter

Serial link

High-speed interrupt inputs

Communication Service

Ethernet router

Number of optional modules

6 Ethernet, Modbus, Modbus Plus, Profibus DP, Sy/Max)

Maximum number of connections

1 USB

2 AS-Interface - distributed

4 AS-Interface - remote

6 Ethernet TCP/IP - local

6 Modbus Plus - local

6 Profibus DP - local

1 Modbus RS232/485 Modbus/ASCII)

Integrated connection type

1 Modbus Plus

1 Modbus

1 USB

1 optic fibre Hot Standby

Checks

Hot standby

Process control

Memory description

Expandable 8 MB - file storage with PCMCIA card

Internal RAM 11264 kB - 1536 kB for data

Switch Function

Key switch memory port on/off

Application structure

1 periodic fast task - forbidden in Hot Standby application

128 I/O interrupt tasks - forbidden in Hot Standby application

128 interrupt tasks - forbidden in Hot Standby application

32 timer interrupt tasks - forbidden in Hot Standby application

4 auxiliary tasks - forbidden in Hot Standby application

1 cyclic/periodic master task -

Number of instructions per ms

10.28 Kinst/ms 100 % Boolean

10.07 Kinst/ms 65 % Boolean and 35 % numerical

System overhead

0.2 ms fast task

1 ms master task

Bus current requirement

2760 mA

Local signalling

1 LED (green) for Ethernet activity (COM)

1 LED (red) for Ethernet collision

Electrical connection

1 female connector SUB-D 9 for connecting to the Modbus Plus network

1 connector RJ45 for connecting Modbus bus

1 connector LC (single mode fiber optic) for interconnecting primary and secondary PLCs up to 16 km

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product Certifications

ATEX zone 2

GOST

IEC-Ex

CE

Misc (Marine)

CSA

UL

Standards

HazLoc

Ordering and shipping details

Category

US1PC2118150

Discount Schedule

PC21

GTIN

3595864101118

Returnability

No

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

4.3 in (11.0 cm)

Package 1 Width

7.3 in (18.5 cm)

Package 1 Length

12.8 in (32.5 cm)

Package weight(Lbs)

3.245 lb(US) (1.472 kg)