

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	

3. Product Information

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Technical specifications for 140CPU67261C

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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 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

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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

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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)

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