

# Product data sheet

Specifications



## Unity processor Modicon Quantum - 548 kB - 66 MHz

140CPU31110

- ❗ Discontinued on: 31 December 2018
- ❗ To be end-of-service on: 31 December 2026

❗ Discontinued - Service only

### Main

Range of product	Modicon Quantum automation platform
Product or component type	Unity processor

### Complementary

Clock frequency	66 MHz
Number of slots	16 4 10 2 6
Number of racks	2 - local rack(s)
Number of distributed I/O station	63 station(s) - 1 rack(s) - 3 Modbus Plus network(s)
Number of remote I/O station	31 - 2 rack(s) per S908 remote I/O 0 - 0 rack(s) per ethernet remote I/O
Discrete I/O number	Unlimited (27 slots max) - local 31744 inputs, 31744 outputs - remote 8000 inputs, 8000 outputs - distributed - per network Modbus Plus
Analogue I/O number	Unlimited (27 slots max) - local 500 inputs, 500 outputs - distributed - per network Modbus Plus 1984 inputs, 1984 outputs - S908 remote I/O
Application specific I/O	High-speed interrupt inputs Counter Accurate time stamping Serial link
Number of optional modules	2 (Ethernet, Modbus, Modbus Plus, Profibus DP, Sy/Max)
Maximum number of connections	1 USB 2 AS-Interface - distributed 2 Ethernet TCP/IP - local 2 Modbus Plus - local 2 Modbus (RS232/485 Modbus/ASCII) 2 Profibus DP - local 4 AS-Interface - remote
Integrated connection type	1 Modbus Plus with 2 Modbus with
Checks	Process control
Memory description	Internal RAM 548 kB
Switch function	Slide switch communication port : ASCII/RTU/Memory Slide switch memory port/off
Application structure	1 cyclic/periodic master task -

	1 periodic fast task - 16 timer interrupt tasks - 64 I/O interrupt tasks - 64 interrupt tasks - No auxiliary task -
Execution time per instruction	0.1...0.27 µs floating points 0.1...0.27 µs on fixed-point arithmetic 0.12...0.585 µs Boolean 0.12...0.585 µs on word
Number of instructions per ms	1.86 Kinst/ms 100 % Boolean 2.49 Kinst/ms 65 % Boolean and 35 % numerical
System overhead	0.2 ms for fast task 1 ms for master task
Bus current requirement	1800 mA
Local signalling	1 LED (green) for communications are active on the Modbus Plus port (Modbus Plus) 1 LED (green) for communications are active on the Modbus port (Modbus) 1 LED (green) for CPU has been started and is solving logic (RUN) 1 LED (green) for CPU has passed the power-up diagnostic tests (READY) 1 LED (orange) for write-protected memory (memory port) 1 LED (red) for battery needs replacing or is not present (BAT LOW) 1 LED (red) for communications error on the Modbus Plus port (ERROR A)
Electrical connection	1 female connector, connector type: SUB-D 9 for connecting to the Modbus Plus network 2 female connectors, connector type: SUB-D 9 for connecting to the Modbus bus

## Environment

Product certifications	CSA CE UL
Standards	HazLoc

## Packing Units

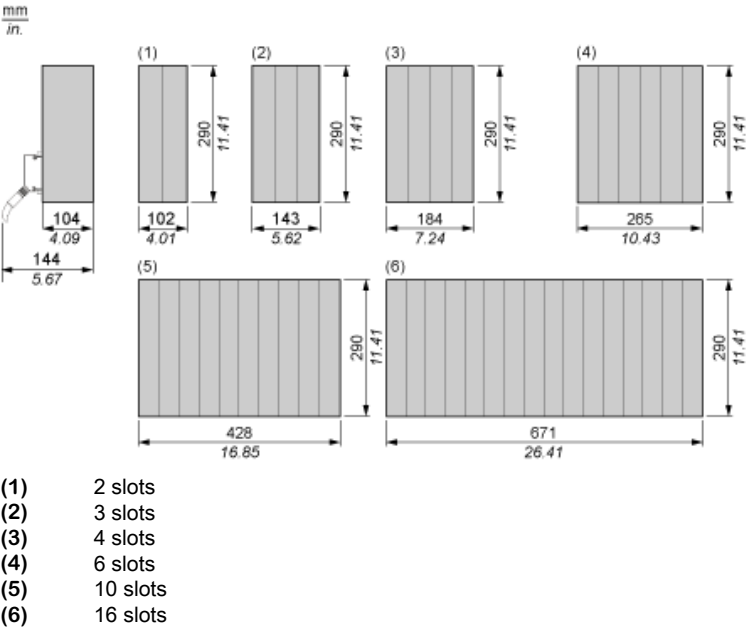
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	17.0 cm
Package 1 Length	31.0 cm
Package 1 Weight	720.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	7
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.97 kg

## Contractual warranty

Warranty	18 months
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Racks for Modules Mounting

Dimensions of Modules and Racks



Recommended replacement(s)

140CPU31110 is replaced by:

1x



Standalone processor, Modicon M580, 4MB, 61 Ethernet devices, 4 Local I/O racks (1024 Digital, 256 Analog)  
BMEP581020