

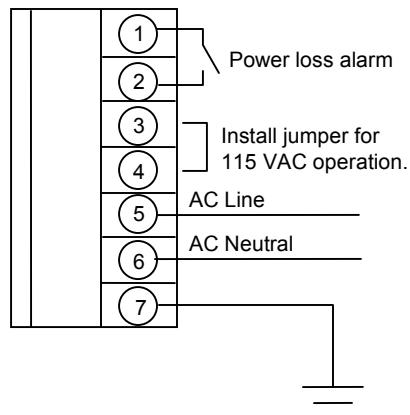
# MODICON® QUANTUM™ 140CPS12420 REDUNDANT AC POWER SUPPLY



## Wiring examples

(refer to user guide for important safety information):

This diagram is valid for both 115 VAC and 230 VAC source voltages.



## General Description

The Quantum 140CPS12420 Redundant AC Power Supply provides power to the system backplane while protecting the system from noise and nominal voltage swings. All Quantum power supplies feature over current and under voltage protection. In the event of an unforeseen loss of power, the Quantum power supplies ensure that the system has adequate time for a safe and orderly shutdown.

The 140CPS12420 power supply converts the incoming power source to a regulated +5VDC to support the CPU, the local I/O and communication option modules mounted in the backplane. Power between the field sensors and the Quantum I/O points is not provided by these power supply modules.

A redundant power supply such as the 140CPS12420 can operate in either Standalone mode or Redundant mode. For high-availability applications, two redundant power supplies can be used in the same backplane. In the event one supply fails, the other maintains the necessary power so that the backplane processing and active communications are not affected.

Quantum power supplies can be inserted into any backplane slot. However, for best heat dissipation and maximum life it is recommended that they be inserted in the outside slots.

As an option, modules can be ordered with a conformal coating applied to protect the internal circuitry from corrosive gases such as Chlorine, Nitric Oxide, Hydrogen Sulfide and Sulfur Dioxide.

Backplanes are ordered separately.

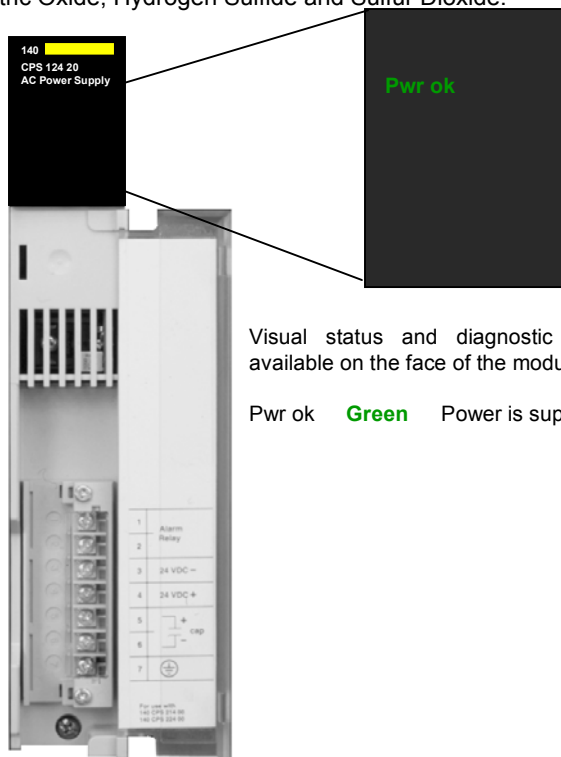
140XBP00200	2 slots
140XBP00400	4 slots
140XBP00600	6 slots
140XBP01000	10 slots
140XBP01600	16 slots

Removable terminal strip is included.

043506325 Standard, Screw Type, 7 points

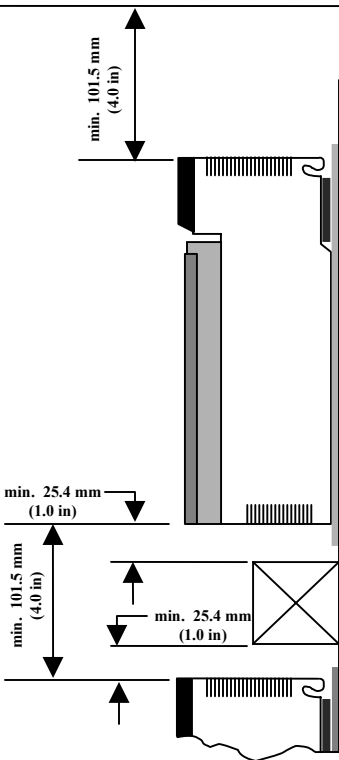
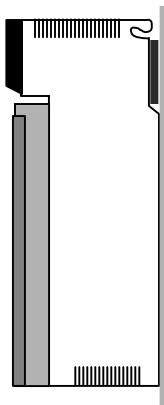
Optional rack accessories are ordered separately.

140XCP50000	Blank module without terminal block
140XCP51000	Blank module with cover



Visual status and diagnostic information is available on the face of the module as LED's.

Pwr ok **Green** Power is supplied to the bus



Specifications	
Input Voltage	93...138 VAC; 170...276VAC
Input Frequency	47 ... 63 Hz
Input Voltage Total Harmonic Distortion	Less than 10% of the fundamental rms value
Input Current	1.1 A @ 115 VAC, 0.6 A @ 230 VAC
Inrush Current	38 A @ 115 VAC, 19 A @ 230 VAC
VA Rating	130 VA
Input Power Interruption	1/2 cycle @ full load & minimum rated line voltage / frequency. No less than 1 second between interruptions.
External Fuses	2.0 A slow blow recommended
Output Voltage to Bus	5.1 VDC
Maximum Current to Bus	8 A (CPS12400); 11 A (CPS12420)
Minimum Current to Bus	None required
Protection	Over Current, Over Voltage
Internal Power Dissipation	6.0 + 1.5 x I <sub>OUT</sub> in Watts (where I <sub>OUT</sub> is in Amperes)
Operating Mode	Standalone/Redundant
Storage Temperature	-40 ... +85 degrees C (-40 ... 185 degrees F)
Operating Temperature	0 ... 60 degrees C (32 ... 140 degrees F)
Relative Humidity	0 ... 95% Non-condensing @ 60 degrees C
Weight	2.0 lb (1 kg) Maximum
RFI Immunity	80 ... 1000 MHz, 10 V/m (meets IEC 1000-4-3)
Ground Continuity	2 kV shield to ground
Electrostatic Discharge	8 kV air/4kV contact (meets IEC 1000-4-2)
Agency Approvals	UL 508, CSA 22.2-142, CE, FM Class 1 Div 2
Software Support	Concept™, ProWORX®, Unity™

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 For detailed technical documentation visit:  
[www.us.telemecanique.com](http://www.us.telemecanique.com)

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