TrueCom®

Building Communications Systems

5120-9174 (6A, 24VDC) Power Supply UL Listed

STANDARD FEATURES:

- 120 VAC/230 VAC, 60 Hz/50 Hz Input
- Three 2A, 24VDC Outputs
- Short Circuit Protection
- UL Listed for US and Canada
- LED Operational Indicator
- EMI Filtering
- Auto Recovery Overload Protection
- 88.5% Efficiency “Green” Technology
- 119 Addressable I/O Cards per Controller
- Three-second Power-up Delay to Drive Large Capacitive Loads up to 40K uF
- Ideally Suited for 6333-Series Digital Clocks

5120-9174 6A, 24VDC Power Supply

OPTIONAL FEATURES:

- 5120-9175 Uninterruptable Power Supply (UPS)
- 5120-9172 Battery Pack

Order one (1) each for every 5120-9174 power supply when backup power is required. Refer to the appropriate data sheet for your specific system.

DESCRIPTION:

The 5120-9174 is a fully regulated 24 VDC, 6 Amp switching power supply. The primary is protected by a 3 Amp slo-blo fuse and the three, 2 Amp outputs by auto-resetting fuses. The outputs are floating with respect to ground. The regulator will maintain 24 volts +2% over the rated range of input voltage and output loads. A greater than 6 Amp load on power up will cause the power supply to current limit. Over voltage is provided to limit the output voltage to approximately 28 volts should a failure occur within the power supply. Outputs may be paralleled but not series connected.

The Simplex 5120-9174 supply is designed to provide 24 Volt DC power to the 6333-9018 digital clocks, 5110, 5120, and 5130 Building Communications Systems. Refer to the *5120-9174 6 Amp 24-Volt Power Supply - Installation Instructions* (Part No. 574-343) for installation and wiring details.

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6333 Clocks - Power Load Equations:

Please review the 24VDC Power Load Equations chart below when designing a 6333-Series digital clock system. The recommendations given will assist you in calculating proper wire size and the number of clocks that can be connected to each of the three, 2 Amp circuits. For applications other than those listed, please contact Sales Engineering for design assistance.

Wire Gauge	Equation
14 AWG	$D = \frac{6667}{C}$
16 AWG	$D = \frac{4177}{C}$
18 AWG	$D = \frac{2732}{C}$
20 AWG	$D = \frac{1708}{C}$
22 AWG	$D = \frac{1126}{C}$
24 AWG	$D = \frac{694}{C}$

D = Distance in Feet
C = Number of Clocks

5120-9174 Specifications:

The following table lists the General, Input, Output, and Environmental Specifications for the 5120-9174 power supply.

General	
Efficiency	88.5% @ 6A Full Load
Weight	Approximately 5.0 lb. (2.27Kg)
Dimensions	8.9”L x 5.6”W x 2.2”D (22.6cm x 14.22cm x 5.6cm)
Input	
Voltage	120/230 VAC
Frequency	60/50 Hz
Full Load Line Current	2.2A
Rated Power	167 Watts
Fusing	Line, 3 Amps slo-blo, lag
Output	
Rated Power	144 Watts
Voltage	24 VDC
Current	6 Amps (three 2A outputs)
Fusing	Three 2A, auto-reset polyswitch fuses
Ripple and Noise	1% P-P Max
Environmental	
Operating Temperature	32° to 122°F (0° to 50°C)
Storage Temperature	-40° to 185°F (-40° to 85°C)
Cooling	Free-air Convection
Humidity	10 to 90% (non-condensing)
Shock	10 G

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