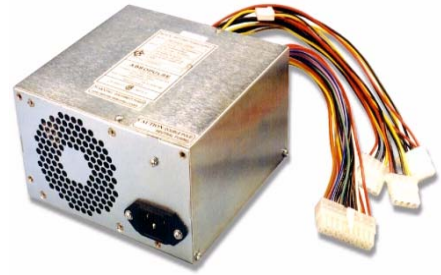


150W, Rugged Power Supply for Medical Applications MPS 420 Series

- Certified for medical applications CSA 601.1
- Leakage current less than 200µA
- Made in North America
- Fully enclosed with internal fan
- Auto-ranging input
- Fully protected



The MPS 420 Series rugged medical quality AC/DC power supply uses field-proven topology to generate 150W output power. It is a mature design with a track record in hundreds of applications. This power supply is in mini AT format and is fully compatible with industry standard power supplies for personal computers and associated applications. Electrical and mechanical design enhancements have been incorporated to meet the specific needs of the medical industry as well as the stringent requirements of North American and European Medical standards. It is cooled by an internal fan and is rated for operation over a 0°C to 50°C temperature range without derating. Low component count and the use of components with established reliability results in a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

115/230Vac +/- 15%, 47 - 63Hz
Autoranging
Input current 2.8A max at 95Vac

Input Protection

Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250VDC input to chassis
5660VDC input to output; 8mm spacing
Output is connected to GND inside the chassis

Approvals

CAN/CSA-C22.2 No. 601.1
UL 2601, CAN/CSA-C22.2 No 950-95, UL 1950 certified.
CSA, NRTL/C safety marking

EMI

EN55022 Class B

Switching Frequency

100KHz +/-10KHz

Hold Up Time

Minimum 15ms at full load range for all outputs

Output Voltage/Current

+5V/20A, -5V/0.3A
+12V/3.5A, -12V/0.3A,
Total 150W max
Consult factory for other voltages

Redundancy Diode

None

Line Regulation

+/- 1% over full input range

Load Regulation

+5V output: +/-2%
+12V output: +/-6%
-12V output: +/-1%
-5V output: +/-1%

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple / Noise

Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

Leakage Current

Less than 200µA (lower than CSA-C22.2 No. 601.1 requirements)

Output Overload Protection

Rectangular current limiting with short-circuit protection by hiccup on the main 5V/20A output and non-hiccup on other outputs
Thermal shutdown in case of insufficient cooling (self resetting)

Output Overvoltage Protection

Double regulator loop completely stable and independent of main loop

Efficiency

72% at full load, depending on output voltage

Operating Temperature Range

0 to +50°C for full specification with proper cooling

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Forced air cooling by internal fan 29CFM min.

Environmental Protection

Basic ruggedizing

MTBF

130,000 hours @ 45 °C
Demonstrated MTBF is significantly higher.

Indicators

None

Control Input

None

Power On/Off Control

Complies with NLX requirements

Alarm Output

None

Package/Dimensions (W x H x L)

140 x 86 x 151 mm
(5.5" x 3.4" x 5.95")

Weight

1.8kg (4lb)

Connections

AC input receptacle EAC 309 or IEC 60320 C16
Main output power connector 6-pole (female) MASCON (q-ty 2)
Peripheral and floppy connector 4-pin (female) MOLEX (q-ty 2)
Remote sense connector 2-pin (female) MASCON

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



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