UPS300 SOLID STATE DC OUTPUT UPS SYSTEM W/ ZERO SWITCHING TIME

1U x 19" x 11"
UPS 300 SERIES

- Field-proven design
- Very high quality
- Competitive price
- Meets international approval requirements
- Fully protected

The UPS300 consists of a 300W, 12V to 114V DC/DC converter, an AC rectifier circuit, and an auxiliary 20W AC/DC converter. During normal AC operation, the 20W converter provides the quiescent current for the main 300W converter to prevent any current draw from the battery. A diode separates the battery from the DC/DC converter input while the AC line is present, and enables an immediate takeover in case of AC failure. The switching from AC line to battery and reverse is absolutely seamless, resulting in no interruption in the UPS output voltage. The output voltage of the unit is always DC, regardless of whether the UPS 300 is running from the AC line, or the battery. The connected loads are power supplies which are capable of running from DC voltage.

SPECIFICATIONS

Input Voltage
A: 12VDC (range 10-18)
B: 115VAC (range 95-264)
47-63Hz

Input Protection
Thermal fuse on both inputs
Reverse polarity protection on 12V input by crossbar diode (input fuse blows if reverse polarity applied - fuse is accessible from the outside)
Inrush current on AC input
Low voltage shut down: 9.3V ± 0.1V
Turn on threshold: 10.3V ± 0.1V

Isolation
AC input to DC input: 2250VDC
AC input to Chassis: 250VDC
DC input to Chassis: 500VDC
DC input to Output: 2250VDC
AC input to Output: galvanically connected

Designed to meet IEC950 safety requirements

Output Voltage/Current
114VDC @300W when operating from battery
114 … 372VDC @300W when operating from line

Line/Load Regulation
± 1% when operating from battery

Output Ripple/Noise
High frequency ripple better than 1Vpp or 200mV RMS
(20 MHz BW)

Output Overload Protection
Current limit 2.9A± 0.1A and short circuit protection (hiccup) when operating from battery
Thermal fuse when operating from line

Output Overvoltage Protection
Second regulator loop (when operating from battery) set to 125 ± 5V

Temperature Drift
0.03% per ^{o}C when operating from battery

Efficiency
Better than 80% when operating from battery
95% when operating from line

Operating Temperature
0 - 50^{o}C for full specification.
Built-in fans operating in case of AC failure

MTBF
100,000h at 45^{o}C

EMI
EN55022 Class A

Switching time
Zero, no glitch on output voltage

Indicators
LED: Valid DC Input Present
DC Input Operate: DC/DC OK
AC Input Present

Alarm Output
Acoustic buzzer if battery voltage lower than 9.7V ± 0.2V

Environmental Protection
Basic ruggedizing

Package / Dimensions
1U x 19" x 11"

Weight
3.6kg

Connections:
AC input: IEC320 male connector
DC input: pluggable screw type terminal
Output: two IEC320 female connectors

Warranty
Twelve months subject to application within good engineering practice

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

ABSOPULSE ELECTRONICS LTD

ABSOPULSE ELECTRONICS LTD.

110 Walgreen Road, Carp, Ontario K1A 1L0 CANADA
Tel: (613) 836-3511 Fax: (613) 836-7488

visit us at www.jimdgrayassoc.com