

1000W, Rugged, Industrial Conduction/Convection Cooled Power Supply HBL 1K Series



- Very rugged design
- Conduction/convection cooling, no fan
- Single phase input
- Full electronic protection
- Field-proven design topology
- Competitive price

The HBL 1K series AC/DC is a heavy-duty power supply that utilizes field-proven full-bridge topology to deliver up to 1000W depending on output voltage. This power supply is rated for operation at full power from 0°C to 50°C without de-rating. Additional ruggedizing and conformal coating are available for operation in extreme environments. The unit features full electronic protection and low output noise. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality controls. Customized versions are also available.

SPECIFICATIONS

Input Voltage

115/230Vac $\pm 15\%$; 47-63Hz
250Vdc (190 – 370V)
Voltage selection by internal jumper
Other voltages on request

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
4300VDC input to output
8mm spacing
500VDC output to chassis

Standards

Designed to meet EN 60950 and corresponding CSA and UL standards

EMI

Meets EN 55022 Class A as a minimum

Switching Frequency

55 KHz ± 3 KHz

Hold Up Time

Minimum 10ms at full load for 5% drop of output voltage at nominal input

Output Voltage/Current

24V/38A, 28V/32V
48V/21A, 56V/18A or 125V/8A
Other outputs on request

Redundancy Diode

None
Available as option on outputs 48V and higher

Line/Load Regulation

$\pm 1\%$ combined

Dynamic Response

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

Output Ripple/Noise

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

Overload Protection

Rectangular current limiting with short circuit protection
Thermal shutdown with automatic reset in case of insufficient airflow

Output Overvoltage Protection

Double regulator loop

Efficiency

Min 80% at full load

Operating Temperature

0°C to +50°C.

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction via base plate to customer chassis or heatsink and additional natural air convection through cooling slots

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating as option

MTBF

Min. 160,000 hours @45°C

Indicators

None

Alarm Outputs

None

Dimensions (W x H x L)

F6: 210 x 66 x 351 mm;
(8.3" x 2.6" x 13.8") including terminals and mounting flanges
Mounting holes are clear

Weight:

3.2 kg (7 lbs)

Connections

Input: Barrier-type terminal block, 3/8" spacing
Output: 1/4" DIA brass studs

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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