

300W AC-DC Plug-in Power Supply Module with Convection Cooling

Rugged Industrial Quality

LOT 65-EH Series



- Rugged industrial quality
- Full electronic protection
- Convection cooling
- Field-proven design
- Hot swappable, N+1 redundant

This rugged, industrial quality AC-DC plug-in power supply utilizes field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. A built-in redundancy diode allows parallel connection to achieve higher output power or N+1 redundant operation, including hot insertion. Cooling is by natural air convection. Heat generating components are installed on an aluminum heatsink block, which is connected to the heatsink plate on the side of the module. This also provides exceptional mechanical ruggedness. The input and output are filtered for low noise. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

115/230Vac $\pm 15\%$, 47 - 63Hz
 jumper selectable
 Please consult factory for other voltages and ranges

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 EN62368-1 and corresponding UL and CSA standards

EMI

EN55022 Class A with large headroom

Switching Frequency

55kHz ± 3 kHz

Hold Up Time

Min. 5ms at any input for 5% drop of the output voltage

Output Voltage/Current

12Vdc/25A, 24Vdc/12.5A,
 48Vdc/6.25A, 110Vdc/2.7A or
 125Vdc/2.4A
 300W continuous
 Output is floating, either terminal can be grounded
 Consult factory for other voltages

Redundancy Diode

Installed internally
 Hot insertion allowed

Line/Load Regulation

Better than $\pm 1.5\%$ combined from zero load to full load, including redundancy diode

Dynamic Response

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

Output Ripple / Noise

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

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
 Thermal shutdown in case of insufficient cooling (self-resetting)

Output Over voltage Protection

Second regulator loop

Efficiency

Dependent on output voltage
 Typically 80% at full load

Operating Temperature Range

0°C to +50°C without derating
 Extended temperature range available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Natural air convection

Environmental Protection

Basic ruggedizing
 Conformal coating as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5-95% non-condensing

MTBF

125,000 hours @ 45 °C
 Demonstrated MTBF is significantly higher

Indicators

On the front-panel of the module:
 Green "Output ON" LED
 Test Points

Control Input

None on standard version
 Adjustment potentiometer on front-panel as option

Alarm Output

Module fail alarm via optocoupler, C-E.

Package/Dimensions

4U x 16HP x 304mm Eurocard

Weight

2.54 kg (5.6 lb)

Connections

H15 DIN connector

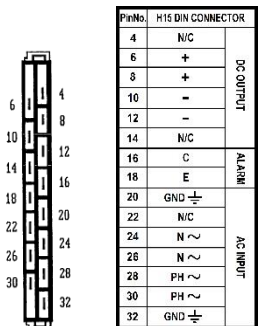
RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Pin-out drawing, H15 connector



ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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