

1500W, Rugged Industrial Quality Variable Output Power Supply with PFC-input LPS 1K5 Series



- Power factor corrected input
- Rugged industrial quality
- Current and Voltmeters
- Bench-top or 19" Rack mount
- Custom output ranges available
- Full electronic protection

The LPS 1K5 Series rugged, industrial quality, variable output AC-DC power supply with PFC input delivers up to 1500W output power. The design utilizes two field proven internal modules, the PFQ1500 and KFB 1500. Versions for standard output ranges of 14-37V (24V), 28-74V (48V) or 60-160V (125V) are available with short delivery times. The output voltage adjustment potentiometer knob is located on front panel of the unit. Other output voltages and adjustment ranges are available on request. Output voltage and current are displayed on analog meters on the front panel of the unit. Binding post terminals for the output are also located on the front-panel. An output "ON" condition is indicated by a green LED located on the front-panel. The AC input is equipped with an input breaker, which is also used as an ON/OFF switch. Cooling is by high quality internal fans, which provide sufficient airflow for operation at the specified temperature range without de-rating. Full electronic protection, low component count, large design headroom and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

95V - 264V universal
Max input current: 20A max.
Power Factor is better than 0.97 at full load for the entire input range.
Meets EN61000-3-2
Consult factory for other inputs

Input Protection

Inrush current limiting
Internal safety fuse
Input breaker 30A, used also as ON/OFF switch
Lower voltage than the specified minimum input will not damage the unit

Isolation

2250Vdc input to chassis
4300Vdc input to output
8mm spacing
1000Vdc input to output

Standards

Designed to meet EN 60950-1 and corresponding UL and CSA standards

EMI

EN 55032 Class A with margins

Switching Frequency

Input section: 100kHz \pm 10kHz
Output section: 55kHz \pm 3kHz

Output Voltage

24V (14-37V adj. range) 40A max or
48V (28-74V adj. range) 20A max or
125V (60-160V adj. range) 9A max.
Output adjustable by knob on front panel.
Output is floating either terminal can be grounded or several units can be connected in series for higher voltage
Consult factory for other output requirements

Redundancy Diode

None

Line/Load Regulation

\pm 1% combined from no load to full load

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 (20HZ BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection.
Thermal shutdown in case of insufficient cooling (self-resetting)

Output Overvoltage Protection

Second regulator loop

Efficiency

Output voltage dependent
Typically 80% at full load

Operating Temperature

0°C to 50°C for full specification
Extended temperature range available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

By built-in high quality fans

Environmental Protection

Ruggedizing
Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5-95% non-condensing

MTBF

100,000 hours @ 45°C
Demonstrated MTBF is significantly higher

Indicators

Output ON LED (green)
Analog output voltage and current meters on front panel

Control Input

Front-panel adjustments:
Potentiometer with knob on the front panel

Alarm Output

None

Dimensions (H x W x D)

3U (133 mm) x 381 x 188mm
3U (5.25") x 15" x 7.4"
19" Rack mountable version is also available

Weight

Approx 6 kg (13 lbs)

Connections

Input: Fixed line cord
Output: Binding posts on the front panel

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

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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