

## 300W, Rugged Industrial Quality Variable Output Power Supply LPS 300-A/270



- Rugged industrial quality
- Current and Voltmeters
- Bench-top
- Custom output ranges available
- Full electronic protection

This versatile, industrial quality, laboratory power supply is specifically designed for applications that require full output range adjustability. It is suitable for product testing and similar purposes in engineering labs or in the field. The unit is built with two field-proven internal modules, the HBC 65 and BUR 300, which provide an output range of 0V-270Vdc. Output voltage and current are displayed on analog meters on the front panel of the unit. The output voltage is adjustable by an adjustment potentiometer knob which is located on front panel of the unit. Adjustment by analog control voltage is available on request. Output terminals are also located on the front-panel. Cooling is by natural air convection, which ensures 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. ABSOPULSE has a broad range of laboratory power supply designs up to kilowatts that can be adapted to customer requirements with lead times of only a few weeks.

### SPECIFICATIONS

#### Input Voltage

115Vac nominal  
95-132Vac operating range  
Input current: 5.6Arms max  
Consult factory for other inputs

#### Input Protection

Inrush current limiting  
Internal safety fuse  
Input 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  
1500Vdc input to output

#### Standards

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

#### EMI

EN 55022 Class A with margins

#### Switching Frequency

55kHz  $\pm$ 3kHz

#### Output Voltage

0V-270V/1.1A max  
Output adjustable by knob on front panel or by analog control voltage  
Output is floating; either terminal can be grounded or units can be connected in series for higher voltage  
Consult factory for other output requirements

#### Redundancy Diode

None

#### Line/Load Regulation

$\pm$ 1.5% combined from zero 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 200mVrms and 900mVpp (20MHz BW)

#### Output Overload Protection

Rectangular current limiting with short-circuit protection.  
Thermal shutdown in case of insufficient cooling (self-resetting)  
Current Limit: 1.2A  $\pm$ 0.1A

#### Output Overvoltage Protection

Second regulator loop set at:  
300V  $\pm$ 20V

#### 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 natural air convection

#### Environmental Protection

Basic 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

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

#### Control Input

Front-panel adjustments:  
Potentiometer with knob on the front panel  
(Electronic control by analog control voltage upon request).

#### Alarm Output

None

#### Dimensions (H x W x D)

141 x 132 x 401 mm  
5.56" x 5.2" x 15.8"  
Dimensions include rubber feet and terminals

#### Weight

Approx 3 kg (6.6 lbs)

#### Connections

Input: IEC 320 inlet  
Output: Binding posts on the front panel

#### RoHS Compliance

Fully compliant

#### Warranty

Two years subject to application within good engineering practice

**The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.**

*OEM of industrial and railway quality AC/DC power supplies and battery chargers, DC/DC converters, 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.*



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For further information, please see:

Power Systems – AC/DC – Laboratory [http://www.absopulse.com/Absopulse\\_powersystems.php](http://www.absopulse.com/Absopulse_powersystems.php)

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