Modular AC/DC Laboratory Power Supply System with 150W Output Power Per Module
LPS 150 Series

- Rugged, industrial quality
- Adjustable outputs 0-30VDC or 0-60VDC
- Current and Volt meters
- Custom output ranges available
- Adjustable current limits
- Adjustable voltage limiting
- 150W regulated output power per module
- Full electronic protection
- Fixed output modules also available

The LPS 150 power supply system was designed for laboratory and industrial applications. Each LPS 150 plug-in module functions as a completely independent power supply. Any combination of up to 4 modules can be assembled in a 19" shelf. Cases for triple, double and single versions are available. The system allows for user configuration depending on application requirements; the pluggable nature of this system enables quick module replacement or re-configuration.

Each LPS 150 module has two analog panel meters: one for output voltage, the other for current monitoring. The output voltage adjustment potentiometer, the current and voltage limit controls, an ON/OFF switch for the AC-input, power-ON indicator LED, and banana sockets for the output are located on the front-panel. The 19" shelf version also has a main ON/OFF switch for the entire system.

The outputs are fully isolated, and several modules can be connected in series to achieve higher output voltages up to 240V within one shelf.

The LPS 150 system meets the highest electrical performance requirements. The design features high efficiency, low output noise, and full protection. High quality components and potentiometers ensure a long operating life. The basic design of this rugged power supply has an impressive track record and these units have been used in the Absopulse plant for testing and burn-in for many years. The entire system is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage
95V - 264V universal
47-440Hz

Input Protection
Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Input Isolation
2250VDC input to chassis
4300VDC input to output, 8mm spacing
500VDC output to chassis
Isolation voltages correspond to input/output combination

Standards
Designed to meet EN 60950 and corresponding US and CSA standards

EMI
EN 55022 Class A as a minimum

Switching Frequency
55KHz +/- 3KHz

Max Output Voltages/Output Current Per Module
LPS 150-30 : 0 - 30VDC/5A
LPS 150-60 : 0 - 60VDC/2.5A
Consult factory for other voltage ranges, or fixed output modules.

Redundancy Diode
None

Line/Load Regulation
Typically ±1% combined from no load to full load (depending on output voltage)

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 (constant current)
Thermal shutdown with automatic recovery in case of reduced airflow

Output Overvoltage Protection
Second regulator loop

Efficiency
80% at full load

Operating Temperature
0 to +50°C (standard model with convection cooling)
Extended temperature range available

Temperature Drift
0.03% per °C over operating temperature range

Cooling
Natural air convection

Environmental Protection
Basic ruggedizing.
Conformal coating and full ruggedizing as option

MTBF
180,000 hours at 45°C per plug-in module.
Demonstrated MTBF is significantly higher

Indicators
Output ON LED
Test Points on front-panel

Controls
Front-panel adjustments:
Output voltage adjustment range: 0 - 30 or 0 - 60V
Output current limit: 0 - max
Output voltage limit: 0 - max

Dimensions
Plug-in module:
3U x 18HP x 280mm
(5.25"x3.6" x 11")

Shelves available (number of plug in modules):
3U x 7.4" x 13" (single & double)
3U x 19" x 13" (triple & quadruple)

Connections:
Input: Standard IEC 320 connector.
Output: banana sockets

RoHS Compliance
Fully compliant

Warranty
Two years subject to application within good engineering practice

Enhancements to these general specifications 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

ABSOPULSE ELECTRONICS LTD.

ABOPULSE ELECTRONICS LTD
110 Walgreen Road, Ottawa
Ontario. K0A 1L0. CANADA
Tel: +1-613-836-3511 Fax: +1-613-836-7488
E-mail: absopulse@absopulse.com
www.absopulse.com