International
Power Sources, Inc.

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DC/DC Converters

LP Series: 25/30 WATT
Low Profile

FEATURES

- 2:1 Input Range
- Isolated Outputs
- Efficiency to 84%
- 100 kHz Switching Frequency
- External Output Trim
- Remote Disable
- Six-sided Shield
- PCB Mountable

MODELS CHART

INPUT MODEL NUMBER	VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENTS		% EFF
				NO LOAD	FULL LOAD	
LP101	9-18VDC	5VDC	5000mA	30mA	2670mA	78
LP102	9-18VDC	12VDC	2000mA	30mA	2500mA	80
LP103	9-18VDC	15VDC	1650mA	30mA	2575mA	80
LP104	9-18VDC	±5VDC	±2500mA	30mA	2670mA	78
LP105	9-18VDC	±12VDC	±1000mA	30mA	2500mA	80
LP106	9-18VDC	±15VDC	±830mA	30mA	2590mA	80
LP107	9-18VDC	5/±12VDC	2500/±500mA	30mA	2550mA	80
LP108	9-18VDC	5/±15VDC	2500/±400mA	30mA	2550mA	80
LP201	18-36VDC	5VDC	5000mA	20mA	1560mA	66
LP202	18-36VDC	12VDC	2000mA	20mA	1525mA	66
LP203	18-36VDC	15VDC	1650mA	20mA	1525mA	68
LP204	18-36VDC	±5VDC	±2500mA	20mA	1560mA	67
LP205	18-36VDC	±12VDC	±1000mA	20mA	1525mA	66
LP206	18-36VDC	±15VDC	±830mA	20mA	1525mA	71
LP207	18-36VDC	5/±12VDC	3000/±625mA	20mA	1520mA	82
LP208	18-36VDC	5/±15VDC	3000/±500mA	20mA	1525mA	82
LP301	36-72VDC	5VDC	5000mA	20mA	760mA	69
LP302	36-72VDC	12VDC	2000mA	20mA	745mA	67
LP303	36-72VDC	15VDC	1650mA	20mA	740mA	70
LP304	36-72VDC	±5VDC	±2500mA	20mA	760mA	69
LP305	36-72VDC	±12VDC	±1000mA	20mA	740mA	68
LP306	36-72VDC	±15VDC	±830mA	20mA	740mA	70
LP307	36-72VDC	5/±12VDC	3000/±625mA	20mA	745mA	84
LP308	36-72VDC	5/±15VDC	3000/±500mA	20mA	745mA	84

NOTE: Nominal Input Voltage 12, 24, or 48 VDC

ELECTRICAL SPECIFICATIONS

All specifications typical at nominal line, full load and 25°C

OUTPUT SPECIFICATIONS

Voltage Accuracy	Single Output	±1% max.
	Dual Output	±1% max.
	Triple 5V	±2% max.
	12V/15V	±1% max.
Voltage Balance, Dual Output at Full Load		±1% max.
Transient Response:		
Single, 25% Step Load Change		<500µ sec.
Dual, FL-1/2L±1% Error Band		<500µ sec.
External Trim Adj. Range		±5%
Ripple & Noise, 20MHz BW		10mV RMS, max. 1% P-P max
Temperature Coefficient		±0.02%/°C max.
Short Circuit Protection		Indefinite
Overvoltage Protection,	5V	6.8V
	12V	15V
	15V	18V
Line Regulation[1]:	Single Output	±0.5% max.
	Dual/Triple Output	±1% max.
Load Regulation[2]:	Single/Dual Output	±1% max.
	Triple Output	±2% max.

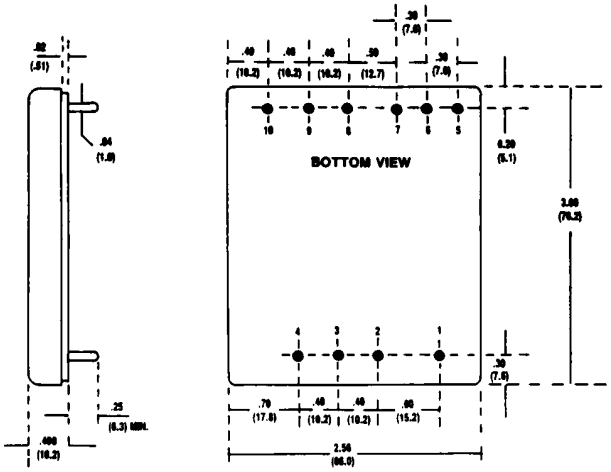
INPUT SPECIFICATIONS

Input Voltage Range	See Table
Input Filter	π Type
Reverse Voltage Protection[3]	Internal Shunt Diode Use External Fuse

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage	500VDC min.
Isolation Resistance	10^9 ohms min.
Switching Frequency	100kHz
Case Grounding	Capacity Coupled to Input
Operating Temperature Range	-25°C to +71°C
Storage Temperature Range	-55°C to +125°C
EM/RFI	Six-sided Continuous Shield
Dimensions	2.56 x 3.0 x 0.40 inches (65 x 76.2 x 10.2 mm)
Case Material	Black Coated Copper with Non-Conductive Base

DIMENSIONS AND CONNECTIONS



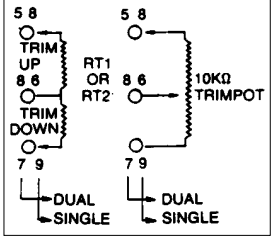
PIN	SINGLE OUTPUT	DUAL OUTPUT	TRIPLE OUTPUT
1	REMOTE ON/OFF	REMOTE ON/OFF	REMOTE ON/OFF
2	+ INPUT	+ INPUT	+ INPUT
3	- INPUT	- INPUT	- INPUT
4	NO PIN	NO PIN	NO PIN
5	NO PIN	+ OUTPUT	+ OUTPUT
6	OUTPUT TRIM	COMMON	COMMON
7	NO PIN	- OUTPUT	- OUTPUT
8	+ OUTPUT	OUTPUT TRIM	+5V OUTPUT
9	- OUTPUT	NO PIN	NO PIN
10	NO PIN	NO PIN	OUTPUT TRIM

REMOTE ON/OFF CONTROL

Logic Compatibility	CMOS or Open Collector TTL
E_c-ON,	>+5.5 VDC or Open Circuit
E_c-OFF,	<0.8 VDC
Shutdown Idle Current	10mA
Input Resistance	(E_{in} 0 VDC to 9 VDC) 100KΩ
Control Common	Referenced to input Minus

EXTERNAL OUTPUT TRIMMING

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED (±5%) WITH A FIXED RESISTOR OR AN EXTERNAL TRIMPOT AS SHOWN.



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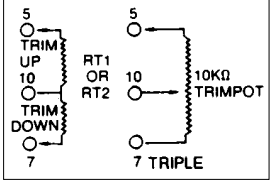

NOTE:

1. Measured from High Line to Low Line.
2. Measured from Full Load to 1/4 Full Load.
3. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20 to 25% to get the desired fuse size.
4. A 10% minimum load is required on dual and triple output models for rated performance.

Dimensions in inches (mm)
Specifications subject to change.