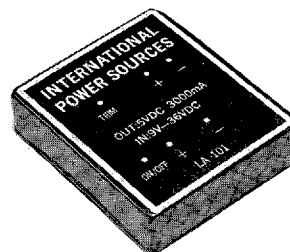


**International
Power Sources, Inc.**

200 Butterfield Drive
Ashland, Massachusetts 01721
Tel. (508) 881-7434 Fax (800) 226-2100

DC/DC Converters



**LA Series: 15 Watt
Wide Input Range**

FEATURES

- 4:1 Input Range
- Isolated Outputs
- Efficiency to 84%
- 100 kHz Switching Frequency
- External Output Trim
- Remote Disable
- Six-sided Shield
- PCB Mountable

MODELS CHART

MODEL NUMBER	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF
				NO LOAD	FULL LOAD	
LA101	9-36 VDC	5 VDC	3000 mA	30 mA	1700 mA	75
LA102	9-36 VDC	12 VDC	1250 mA	30 mA	1600 mA	78
LA103	9-36 VDC	15 VDC	1000 mA	30 mA	1600 mA	78
LA104	9-36 VDC	± 12 VDC	± 625 mA	25 mA	1520 mA	82
LA105	9-36 VDC	± 15 VDC	± 500 mA	25 mA	1520 mA	82
LA106	9-18 VDC	+ 5/ + 12/ - 5 VDC	1500/ + 310/ 500 mA	50 mA	1470 mA	78
LA107	9-18 VDC	5/ + / - 12 VDC	1500/ + / - 310 mA	50 mA	1600 mA	78
LA108	9-18 VDC	5/ + / - 15 VDC	1500/ + / - 250 mA	50 mA	1600 mA	78
LA201	18-72 VDC	5 VDC	3000 mA	20 mA	810 mA	77
LA202	18-72 VDC	12 VDC	1250 mA	20 mA	780 mA	80
LA203	18-72 VDC	15 VDC	1000 mA	20 mA	780 mA	80
LA204	18-72 VDC	± 12 VDC	± 625 mA	25 mA	750 mA	84
LA205	18-72 VDC	± 15 VDC	± 500 mA	25 mA	750 mA	84
LA206	18-36 VDC	+ 5/ + 12/ - 5 VDC	1500/ + 310/ 500 mA	40 mA	715 mA	80
LA207	18-36 VDC	5/ + / - 12 VDC	1500/ + / - 310 mA	40 mA	780 mA	80
LA208	18-36 VDC	5/ + / - 15 VDC	1500/ + / - 250 mA	40 mA	780 mA	80
LA306	36-72 VDC	+ 5/ + 12/ - 5 VDC	1500/ + 310/ 500 mA	30 mA	350 mA	82
LA307	36-72 VDC	5/ + / - 12 VDC	1500/ + / - 310 mA	30 mA	380 mA	82
LA308	36-72 VDC	5/ + / - 15 VDC	1500/ + / - 250 mA	30 mA	380 mA	82

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.
-Output	±3% max.
Triple 5V	±2% max.
12V/15V	±5% max.
-5V	±2% max.
Voltage Balance, Dual output at Full load	±1% max.
Transient Response:	
Single, 25% step load change	< 500 μ sec.
Dual, FL-1/2L±1% Error Band	< 500 μ sec.
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW	10mV RMS, max. 75mV 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/Dual output	±0.5% max.
Triple output	±1% max.
Load Regulation ² : Single/Dual output	±1% max.
Triple output	±5% max.

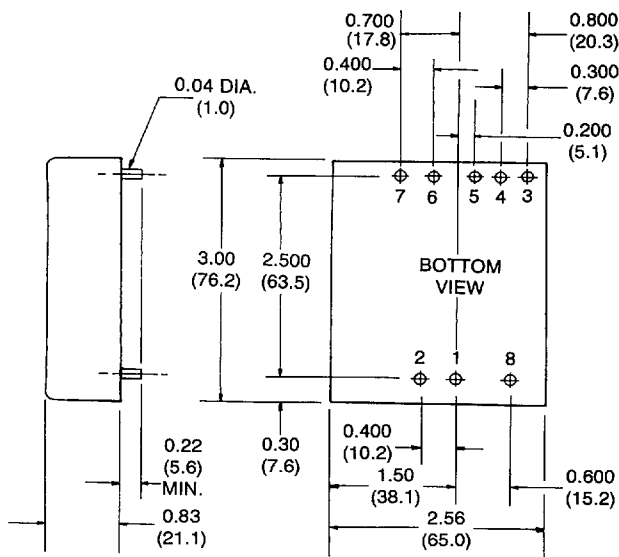
INPUT SPECIFICATIONS

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

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage	500 VDC 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 +105°C
EM/RFI	Six-Sided Continuous Shield
Dimensions	2.56 x 3.0 x 0.83 inches (65 x 76.2 x 21.1 mm)
Case Material	Black Coated Copper with Non-Conductive Base

DIMENSIONS AND CONNECTIONS



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 single output models for rated performance.

Dimensions in inches (mm)
Specifications subject to change.

Pin Connections

Pin	Single	Dual	Triple
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	No Pin	+ Output	+ Output
4	Output Trim	Common	Common
5	No Pin	- Output	- Output
6	+ Output	No Pin	+5V Output
7	- Output	No Pin	No Pin
8	Remote On/Off Control		

REMOTE ON/OFF CONTROL

Logic Compatibility	CMOs or Open Collector TTL
E _c - ON,	> +5.5 VDC or Open Circuit
E _c - OFF,	< 1.8 VDC
Shutdown Idle Current	10 mA
Input Resistance	(E _{in} 0 VDC to 9 VDC) 100 K Ω
Control Common	Referenced to input Minus

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed ($\pm 10\%$) with a fixed resistor or an external trimpot as shown.

