

LP Series 3 Watt

Single and Dual Output

DC-DC Power Converters



T-57-11

FEATURES

- Fixed input range; 5V, 12V, 28V ($\pm 10\%$)
- Chassis or PC board mount (2" x 2" x 0.75")
- 500V dc input to output isolation (300V dc for 24V/28V Models)
- Output current limiting short circuit protection
- Very wide operating temperature (-25°C to $+71^{\circ}\text{C}$)
- Single or dual outputs
- Delivery from stock!



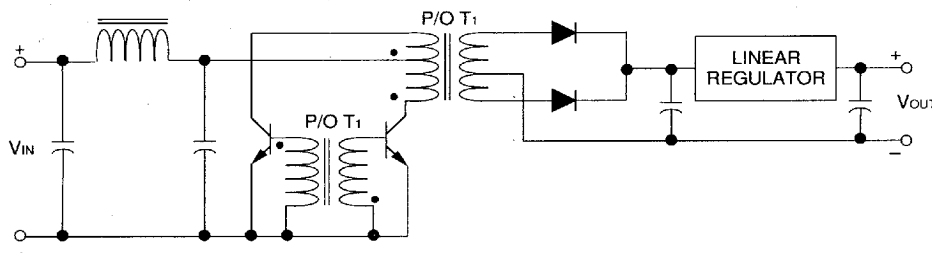
GENERAL DESCRIPTION

The LP Series of high performance 3 Watt DC-to-DC converters provide the accuracy and reliability you've come to expect from DATEL. Fourteen different 3 Watt models are available in a standard 2" x 2" x 0.75" package to cover virtually any application from special in-house designs to your high volume OEM applications. Their compact size, low price, and rugged reliability means you can meet the design-in price specification for high volume applications without the headaches and worry associated with poor quality offshore throwaways.

Outstanding output accuracy combined with low thermal rise, tight regulation, and very low noise and ripple make these power converters ideal for sensitive circuits. A Pi network

input filter suppresses input reflected ripple current. Additional features include transformer isolation and current-limiting output protection.

The 3 Watt LP Series are available with input voltages of 5V, 12V, 28V ($\pm 10\%$) with either unipolar or bipolar outputs of 5V, 12V, 24V, 28V, $\pm 12\text{V}$, and $\pm 15\text{V}$. The 3 Watt LP Series converters are found in applications ranging from Industrial Control Systems, Telecommunications Equipment, Analog Systems, Digital Circuits, Field/Mobile Instrumentation, or wherever high reliability at the lowest possible cost is demanded.



APPLICATIONS

- Telecommunications Equipment
- Local Power Distribution Systems
- PC Board Subsystems
- Portable/Mobile/Battery Operated Instrumentation
- Portable Computer and Computer Controlled Equipment
- Low Power Automotive/Avionics/Marine Systems and Equipment

SPECIFICATIONS

	SINGLE OUTPUT MODELS		
	UPS-5/600-D5	UPS-5/600-D12	UPS-5/600-D28
Output Voltage	5V	5V	5V
Output Current	600 mA	600 mA	600 mA
Input Voltage	5V dc	12V dc	28V dc
Input Voltage Tolerance	±10%	±10%	±10%
No Load Input Current	125 mA	50 mA	20 mA
Full Load Input Current, max.	935 mA	364 mA	135 mA
Line Regulation	0.02%	0.02%	0.02%
Load Regulation	0.04%	0.04%	0.04%
Temperature Coefficient	0.02%/°C	0.02%/°C	0.02%/°C
Breakdown Voltage, min.	500V dc	500V dc	500V dc
Reflected Ripple Current, max.	32 mA pk-pk	24 mA pk-pk	21 mA pk-pk

	SINGLE OUTPUT MODELS				
	UPS-12/250-D5	UPS-12/250-D28	UPM-24/125-D12	UPM-28/100-D5	UPM-28/100-D12
Output Voltage	12V	12V	24V	28V	28V
Output Current	250 mA	250 mA	125 mA	100 mA	100 mA
Input Voltage	5V dc	28V dc	12V dc	5V dc	12V dc
Input Voltage Tolerance	±10%	±10%	±10%	±10%	±10%
No Load Input Current	140 mA	25 mA	125 mA	300 mA	125 mA
Full Load Input Current, max.	863 mA	125 mA	530 mA	1350 mA	500 mA
Line Regulation	0.02%	0.02%	0.05%	0.05%	0.05%
Load Regulation	0.04%	0.04%	0.05%	0.05%	0.05%
Temperature Coefficient	0.02%/°C	0.02%/°C	0.02%/°C	0.02%/°C	0.02%/°C
Breakdown Voltage, min.	500V dc	500V dc	300V dc	300V dc	300V dc
Reflected Ripple Current, max.	31 mA pk-pk	21 mA pk-pk	16 mA pk-pk	40 mA pk-pk	15 mA pk-pk

GENERAL SPECIFICATIONS — at 25 °C

Output Voltage Accuracy±1%
Output Noise and Ripple, maximum20 mV pk-pk (2 mV RMS),
Operating Temperature Range-25 °C to +71 °C
Storage Temperature Range-55 °C to +85 °C
Case MaterialDiallyl Phthalate

The 3 watt series uses 2 DILS-1 or DILS-2 terminal strips for sockets.

LP Series 3 Watt



SPECIFICATIONS

	DUAL OUTPUT MODELS		
	BPS-12/125-D5	BPS-12/125-D12	BPS-12/125-D28
Output Voltage	±12V	±12V	±12V
Output Current	125 mA	125 mA	125 mA
Input Voltage	5V dc	12V dc	28V dc
Input Voltage Tolerance	±10%	±10%	±10%
No Load Input Current	130 mA	55 mA	25 mA
Full Load Input Current, max.	965 mA	380 mA	145 mA
Line Regulation	0.02%	0.02%	0.02%
Load Regulation	0.02%	0.02%	0.02%
Temperature Coefficient	0.01%/°C	0.01%/°C	0.01%/°C
Breakdown Voltage, min.	500V dc	500V dc	500V dc
Reflected Ripple Current, max.	34 mA pk-pk	23 mA pk-pk	21 mA pk-pk

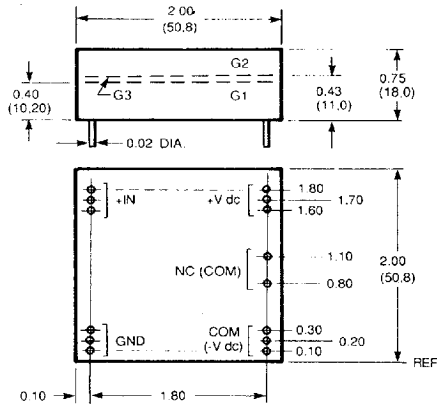
	DUAL OUTPUT MODELS		
	BPS-15/100-D5	BPS-15/100-D12	BPS-15/100-D28
Output Voltage	±15V	±15V	±15V
Output Current	100 mA	100 mA	100 mA
Input Voltage	5V dc	12V dc	28V dc
Input Voltage Tolerance	±10	±10	±10
No Load Input Current	135 mA	55 mA	25 mA
Full Load Input Current, max.	955 mA	376 mA	143 mA
Line Regulation	0.02%	0.02%	0.02%
Load Regulation	0.02%	0.02%	0.02%
Temperature Coefficient	0.01%/°C	0.01%/°C	0.01%/°C
Breakdown Voltage, min.	500V dc	500V dc	500V dc
Reflected Ripple Current, max.	33 mA pk-pk	24 mA pk-pk	21 mA pk-pk

GENERAL SPECIFICATIONS — at 25 °C

Output Voltage Accuracy±1% Output Noise and Ripple, maximum20 mV pk-pk (2 mV RMS), Operating Temperature Range-25 °C to +71 °C Storage Temperature Range.....-55 °C to +85 °C Case MaterialDiallyl Phthalate
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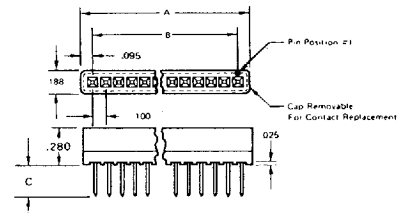
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MECHANICAL DIMENSIONS AND I/O CONNECTIONS



NOTE: PIN DESIGNATIONS IN PARENTHESIS
ARE FOR BIPOLAR OUTPUT MODELS

SOCKETS DILS-1, DILS-2



Model	No. of Contacts	A	B	C	
DILS-1	20	2.090	1.900	.645	WIRE-WRAP
DILS-2	20	2.090	1.900	.145	SOLDER PIN

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