

LP Series 10 Watt

Single and Dual Output

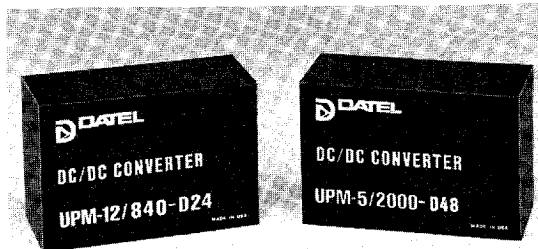
DC-DC Power Converters



T-57-11

FEATURES

- Fixed input ranges; 5V, 12V, 24V, 28V, 48V ($\pm 10\%$)
- Compact, Modular PC board mount (3.5" x 2.5" x 0.88")
- 500V dc input to output isolation (300V dc for $\pm 12V$ 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!

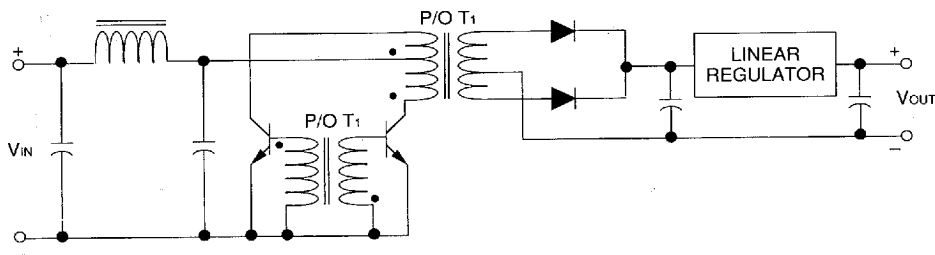


GENERAL DESCRIPTION

The LP Series of high performance, mid-range power 10 Watt DC-to-DC converters provide efficient, low cost, regulated power in a compact PC board mount package. Twelve different 10 Watt converters are available with popular unipolar and bipolar output voltages for wide applicability. Encased in non-conductive plastic, the 10 Watt LP Series converters are available with or without mating PC board sockets. Their 3.5" x 2.5" x 0.88" package and low price are ideal for a wide variety of applications from special in-house designs to high volume OEM products. Highly regulated (0.02%, Line/Load), with 0.01% temperature coefficients (depending upon model), and isolation to 500V dc, these ruggedly reliable converters provide years of cost effective, trouble-free operation under less than ideal conditions. 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 10 Watt LP Series are available with input voltages of 5V, 12V, 24V, 28V, and 48V ($\pm 10\%$) with either unipolar or bipolar outputs of 5V, $\pm 12V$, and $\pm 15V$. The 10 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
- Automotive/Avionics/Marine Systems and Equipment



SPECIFICATIONS

	SINGLE OUTPUT MODELS		
	UPS-5/2000-D24	UPM-5/2000-D28	UPM-5/2000-D48
Output Voltage	5V	5V	5V
Output Current	2000 mA	2000 mA	2000 mA
Input Voltage	24V dc	28V dc	48V dc
Input Voltage Tolerance	22.32 — 26.4V	26.04 — 30.8V	44.64 — 52.8V
No Load Input Current	45 mA	40 mA	20 mA
Full Load Input Current, max.	640 mA	550 mA	320 mA
Line Regulation	0.02%	0.02%	0.02%
Load Regulation	0.05%	0.05%	0.05%
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	32 mA pk-pk	32 mA pk-pk

	DUAL OUTPUT MODELS		
	BPM-12/420-D5	BPM-12/420-D12	BPM-12/420-D24
Output Voltage	±12V	±12V	±12V
Output Current	420 mA	420 mA	420 mA
Input Voltage	5V dc	12V dc	24V dc
Input Voltage Tolerance	4.5 — 5.5V	10.8 — 13.2V	21.6 — 26.4V
No Load Input Current	980 mA	340 mA	175 mA
Full Load Input Current, max.	4000 mA	1530 mA	760 mA
Line Regulation	0.05%	0.05%	0.05%
Load Regulation	0.05%	0.05%	0.05%
Temperature Coefficient	0.02%/°C	0.02%/°C	0.02%/°C
Breakdown Voltage, min.	300V dc	300V dc	300V dc
Reflected Ripple Current, max.	120 mA pk-pk	46 mA pk-pk	23 mA pk-pk

GENERAL SPECIFICATIONS — ALL MODELS

Output Voltage Accuracy±1%
 Output Noise and Ripple, maximum50 mV pk-pk (5 mV RMS),
 Operating Temperature Range-25 °C to +71 °C
 Storage Temperature Range.....-55 °C to +85 °C
 Case MaterialDiallyl Phthalate

The 10 Watt Series uses the MS-7 Socket.

SPECIFICATIONS

	DUAL OUTPUT MODELS		
	BPM-12/420-D28	BPM-12/420-D48	BPS-15/412-D5
Output Voltage	±12V	±12V	±15V
Output Current	420 mA	420 mA	412 mA
Input Voltage	28V dc	48V dc	5V dc
Input Voltage Tolerance	25.2 — 30.8V	42 — 54V	4.65 — 5.5V
No Load Input Current	130 mA	120 mA	260 mA
Full Load Input Current, max.	650 mA	415 mA	3700 mA
Line Regulation	0.05%	0.05%	0.02%
Load Regulation	0.05%	0.05%	0.02%
Temperature Coefficient	0.02%/°C	0.02%/°C	0.01%/°C
Breakdown Voltage, min.	300V dc	300V dc	500V dc
Reflected Ripple Current, max.	20 mA pk-pk	13 mA pk-pk	130 mA pk-pk

	DUAL OUTPUT MODELS		
	BPS-15/412-D12	BPS-15/412-D24	BPS-15/412-D28
Output Voltage	±15V	±15V	±15V
Output Current	412 mA	412 mA	412 mA
Input Voltage	12V dc	24V dc	28V dc
Input Voltage Tolerance	11.16 — 13.2V	21.6 — 26.4V	44.64 — 52.8V
No Load Input Current	110 mA	55 mA	45 mA
Full Load Input Current, max.	1590 mA	770 mA	660 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.	54 mA pk-pk	38 mA pk-pk	39 mA pk-pk

GENERAL SPECIFICATIONS — ALL MODELS

Output Voltage Accuracy±1%
 Output Noise and Ripple, maximum50 mV pk-pk (5 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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