DC-DC Converters

Series LPD Single and Series LPD Dual

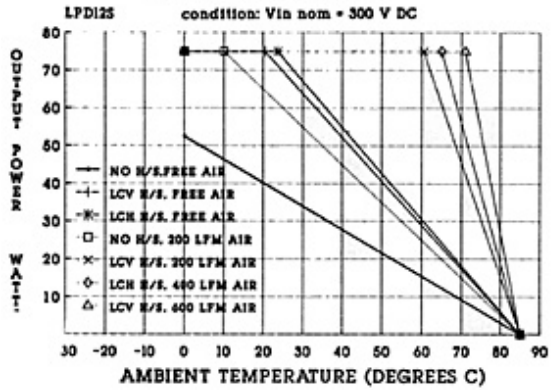
Isolated Regulated 75 Watts, Wide Input Range/200-380 VDC
Fully Regulated, Short Circuit Protected
Parallel Operation Available

Features:
• Dual isolated outputs
• Short circuit protection
• Input voltage protection
• Thermal, over temp. shutdown
• Line regulation
• Load regulation
• No external components required
• Hi density, hi efficiency design
• Remote shutdown
• Trim capabilities
• Fixed frequency-100 Khtz

Typical Characteristics:
Frequency: 100 Khtz
Base plate: Max. +85° C
Operating temperature: See thermal chart, Min. 0° C ambient, Max. +85° C base plate temp.
Test conditions: 25° C ambient
Isolation Base Input: 2121 VDC
Isolation Input Output: 4242 VDC
Isolation Output to Base: 1000 VDC
Storage temperature: -55° C to +105° C
• 23 Standard Models
Hi Density 75 Watts
Fixed Frequency
• For all variations, call factory.
For Parallel Operation: Add suffix "P" (i.e. LPD5SP). Consult factory to optimize for your application.

The PICO LPD Series of high power DC-DC Converters, allow a wide input voltage of 200-380 VDC, while maintaining a regulated output. They are fully safeguarded for over voltage, over temperature and continuous short circuit protection.
The availability of Dual Isolated Outputs, small size, and the capability of parallel operations as standard features should reduce your design and component costs, while the fixed frequency operation helps parallel connections for higher power requirements.
This high density unit is assembled in the USA with PICO quality and component selection, allowing it to meet the most stringent commercial requirements.

Full thermal analysis can be determined using application notes on page 124.
By using the efficiency and thermal resistance of your desired unit to the formula you can complete your evaluation.
The curves below were generated for Part #LPD12S using Application Notes
Please consult factory with any questions.



Larger Version of Graph

Series LPD Single
75 Watts Input 200-380 VDC

Pico Part No.	Input Voltage Range (V DC)	Output Voltage Per Output (V DC)	Max. Output Power Per Output * (W)	EFF. Full Load Typical ** (%)	Max. Load Regulation (%)		Max. Line Regulation At Full Load (%)		Output Voltage Ripple (Full Load) 1-1MHz BW (MV P-P)	Output Voltage Tolerance ** (± %)	Price (US $)
					10-50%	50-100%	200-300 V	300-380 V			
LPD3.3S	200-380	3.3	15	73	1.50	1.50	1.00	1.00	50	2.0	221.58
LPD5S	200-380	5	25	80	1.25	1.25	1.00	1.00	50	1.5	221.58
LPD5.2S	200-380	5.2	25	80	1.25	1.25	1.00	1.00	50	1.5	221.58
LPD9S	200-380	9	32.5	84	1.25	1.25	0.75	0.75	50	1.0	221.58
LPD12S	200-380	12	37.5	84	1.00	1.00	0.75	0.75	50	1.0	221.58
LPD15S	200-380	15	37.5	84	1.00	1.00	0.75	0.75	50	1.0	221.58
LPD24S	200-380	24	37.5	85	0.75	0.75	0.50	0.50	50	0.5	221.58
LPD28S	200-380	28	37.5	86	0.50	0.50	0.50	0.50	50	0.5	221.58
LPD48S	200-380	48	37.5	85	0.50	0.50	0.50	0.50	50	0.5	221.58
LPD100S	200-380	100	37.5	85	0.50	0.50	0.50	0.50	100	0.5	305.32

10% Minimum load required at all times.
* Using proper thermal management, maximum temp. of +85° C (case)
** Reading taken at nominal 300 VDC input

Series LPD Dual
75 Watts Input 200-380 VDC

Pico Part No.	Input Voltage Range (V DC)	Output Voltage Per Output (V DC)	Max. Output Power per Output * (W)	EFF. Full Load Typical ** (%)	Max. Load Regulation (%)		Max. Line Regulation At Full Load (%)		Output Voltage Ripple (Full Load) 1-1MHz BW (MV P-P)	Output Voltage Tolerance ** (± %)	Price (US $)
					10-50%	50-100%	200-300 V	300-380 V			
LPD5D	200-380	5	25	80	1.25	1.25	1.0	1.0	50	1.5	298.87
LPD9D	200-380	9	32.5	84	1.25	1.25	0.75	0.75	50	1.0	298.87
LPD12D	200-380	12	37.5	84	1.0	1.0	0.75	0.75	50	1.0	298.87

LPD15D	200-380	15	37.5	84	1.0	1.0	0.5	0.5	50	1.0	298.87
LPD24D	200-380	24	37.5	85	0.75	0.75	0.5	0.5	50	0.5	298.87
LPD28D	200-380	28	37.5	86	0.5	0.5	0.5	0.5	50	0.5	298.87
LPD48D	200-380	48	37.5	85	0.5	0.5	0.5	0.5	50	0.5	321.22

10% Minimum load required at all times.
* Using proper thermal management, maximum temp. of +85° C (case)
** Reading taken at nominal 300 VDC input

***HIGH VOLTAGE SERIES LPD
TO 250 VDC - 50 WATTS - INPUT 200-380 VDC

PICO PART No.	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE DC	MAX. OUTPUT POWER (W)*	EFF. @ FULL LOAD TYPICAL (%)**	MAX. LOAD REGULATION (%)**		MAX. LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1 MHz BW (%)	OUTPUT VOLTAGE Tolerance (±%)**	PRICE (US $)
					20-50%	50-100%	200-300V	300-380V			
LPD125S	200-380	125	50	85	0.5	0.5	0.3	0.3	1.0	0.5	305.32
LPD150S	200-380	150	50	85	0.5	0.5	0.3	0.3	1.0	0.5	305.32
LPD175S	200-380	175	50	85	0.5	0.5	0.3	0.3	1.0	0.5	305.32
LPD200S	200-380	200	50	85	0.5	0.5	0.3	0.3	1.0	0.5	407.09
LPD225S	200-380	225	50	85	0.5	0.5	0.3	0.3	1.0	0.5	407.09
LPD250S	200-380	250	50	85	0.5	0.5	0.3	0.3	1.0	0.5	407.09

*Using proper themal management maximum temp of +85
°C (case)
10% Minimum load required at all times.
** Reading taken at nominal 300 VDC input
*** UL approval pending

GO TO APPLICATION NOTES GO TO HEAT SINK INFORMATION GO TO MECHANICAL CONFIGURATION

For immediate engineering assistance or to place an order:

Call Toll Free: 800-431-1064

PICO Electronics, Inc.

143 Sparks Ave. Pelham, NY 10803
Tel: 914-738-1400 Fax: 914-738-8225