

The LDD series are the industrial standard for OEM laser diode drivers and are ideal for high power applications where economy is important and performance cannot be compromised. Compact size is possible due to the lowloss Zero Voltage Switching inverter and incorporation of planar magnetics. The LDD is virtually wire free.

Power factor is greater than 0.99 (1Ø models) and conducted emissions meet stringent European regulations. No additional line filters required to meet EN 55011 emission requirements.

The LDD series is designed with multiple safe guards to protect your expensive laser diodes. Rise and fall times are strictly controlled to reduce high voltage transients which could damage the laser diode.



### ADVANTAGES

- Ideal for OEM applications
- Safe turn-on/turn-off
- Compact design
- Power factor correction (1Ø models)
- Auxiliary +15V/-15V/+5V
- Low conducted emissions, low leakage
- ROHS Compliant

Configurations:

- Output current to 300A
- Maximum output voltage to 200V
- Analog or RS232 interface
- Universal input for all world voltages
- CE and safety agency approved
- Available handheld controller

Your distributor:





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Model	Poutmax	loutmax	Input Voltage	Size (L x W x H)
LDD-100-XX-YY	100 Watts	50 amps		
LDD-150-XX-YY	150 Watts	60 amps	100 to 240VAC ± 10%	7.5" x 5.8" x 2.6" 19 x 14.7 x 6.6 cm
LDD-250-XX-YY	250 Watts	80 amps		
LDD-600-XX-YY	600 Watts			
LDD-1000-XX-YY	1000 Watts	100 amps		9.9" x 7.3"x 2,6" 25.1 x 18.5 x 6.6 cm
LDD-1500-XX-YY	1500 Watts		200-240VAC ± 10%	
LDD-2500-XX-YY	2500 Watts	150 amps		13" x 8.5" x 3.4" 33.2 x 21.6 x 8.6 cm
LDD-3000-XX-YY	3000 Watts	200 amps		17" x 16.6" x 3.4" 43.2 x 42.2 x 8.6 cm
LDD-6000-XX-YY	6000 Watts	250 amps	200-240VAC ± 10% 3Ø 380-480VAC ±10% 3Ø Factory Configured	17.3" x 16.6" x 4.25" 43.9 x 42.2 x 10.8 cm

XX = maximum required output current, YY= maximum required compliance voltage Maximum compliance voltage for LDD-2500 = 50V.

### **Specifications** INPUT

Voltage: Power Factor:

See table above

### INTERFACE

15 Pin "D" Sub Female Connector: Current Program: Current Monitor: Voltage Monitor: (Optional RS232 interface available)

#### PERFORMANCE

Rise/Fall Time:

Current Regulation: Current Ripple: Current Overshoot: Power Limit:

>.98 (LDD-6000:~t80%)

0-10V for 0-Max Current 0-10V for 0-Max Current 0-10V for 0-Max Voltage

> >10msec standard (faster rise times available) <0.5% of Maximum output current <0.5% of maximum output current <1% of maximum output current Limited to maximum power with power fold-back circuit

### **ENVIRONMENT**

Operating Temp:	0 to 40°C
Storage:	-20 to 85°C
Humidity:	0 to 90% non-condensing
Cooling:	Forced air

#### REGULATORY

LDD-100, LDD-150: EN60601 LDD-150/250/400: EMC 60950, EN55022 LDD-600/1000/1500: EN60601 LDD-3000: EN60950, EN55022 LDD-6000: EMC EN 61326

### **AUXILIARY OUTPUTS**

+5V @ 100mA +15V @ 200mA -15V @ 100mA

Note: Performance cannot be guaranteed below 25% of rated output current.



## LDD-INTERFACE CONNECTOR TYPE: 15 PIN D-SUB FEMALE

Pin #	Pin Name	Functional Voltage Levels	Description
1	Enable (input) (note1)	High = RUN = +5V to +15V Low = OFF = 0V	The Enable function turns the output section of the power supply ON and OFF. When the power supply is enabled, current is delivered to the load as programmed via lprogram(+), Pin 7. Rise times resulting from Enable are approxi- mately 25msec.
3	Interlock (Input)	Open = OFF Connect to GND = RUN	The Interlock function can be connected to ex- ternal interlock switches such as door or over- temp switches.
4,9, 15	GND		Interface Return
5	Vout Monitor (out- put)	0-10V = 0-Voutmax (note:2)	The output voltage of the supply can be moni- tored by Vout Monitor. See note below
6	lout Monitor (output)	0-10V = 0-loutmax	The output current of the supply can be moni- tored by lout Monitor.
7	Iprogram (input)	0-10V = 0-loutmax	The power supply output current is set by applying a 0-10V analog signal to Iprogram(+).
8	Pulse Control (input) (pulsed fuction is also available on LDN series drivers)	TTL High = On TTL Low = Off Default = On (LDD-2500/3000/6000 only)	The output of the LDD-2500/3000/6000 may be pulsed by applying a TTL signal to Pulse Control, pin 8. The amplitude of the output cur- rent pulse is determined by the current level programmed via Pin 7, lprogram(+). Rise fall times of <1msec are typical. Contact Lumina Power for faster rise and fall times.
10,11	+5V (output)		Auxiliary 100mA
12	-15V (output)		Auxiliary 100mA
13,14	+15V (output)		Auxiliary 200mA

1. Always disable power supply (pin 1 low) prior to appying the mains voltage.

2. Pin 5 If maximum compliance voltage is less than 10V, Vout Monitor will read output voltage directly. If maximum compliance voltage is greater than 10V, then Vout Monitor will be scaled such that 0-10V = 0-Voutmax.

3. Applying a program voltage greater than 10.5 volts to Pin 7 (I-program) will latch power supply. Output current will not exceed 105% of rating.



## **Outline Drawings**

### LDD-100/150/250





### LDD-600/1000/1500



Lumina Power, INC.

### LDD-2500





LDD-3000





