

Laser Diode Drivers

CW MODE LASER DIODE DRIVERS

FEATURES

- ▶ Best suited for OEM applications
- ▶ Power factor correction
- ▶ High reliability
- ▶ ROHS compliant
- ▶ Cost efficient

Laser diode drivers are designed for powering single diode as well as laser diode arrays. LDD series diode drivers has been designed as OEM product with easy integration. They have all

protective features for reliable and safe long term operation. Embedded fan protects device from overheating and eliminate needs for additional cooling.

SPECIFICATIONS

Model	LDD-40-4	LDD-60-4	LDD-80-4	
Maximal output	Operating mode	CW		
	Current	40 A	60 A	80 A
	Voltage range	1.1–4.8 V		
	Power	120 W	270 W	320 W *
Output current parameters	Rise/fall time	<100 ms		
	Regulation	<0.5%		
	Ripple	<0.5%		
	Measuring accuracy	±2%		
Auxiliary output	+12 V 0.5 A			
Powering	Voltage	88–264 V AC	12 V DC	
	Input frequency	47–63 Hz	–	
	Inrush current	20 A at 100 V; 40 A at 200 V	–	
	PFC	Meets EN6100-3-2	–	
Operating conditions	Temperature	0 to 40 °C		
	Humidity, non condensing	< 90%		
Size (see drawing)	190 × 180 × 70 mm		209 × 75 × 76 mm	
Standards conformity	Safety	UL60950-1, CSA22.2 No.60950-1, EN60950-1, EN50178	–	
	Immunity	IEC61000-4-2(Level 2,3), -3(Level 3), -4(Level 3), -5(Level 3,4), -6(Level 3), -8(Level 4), -11	–	

* More power is available on request.

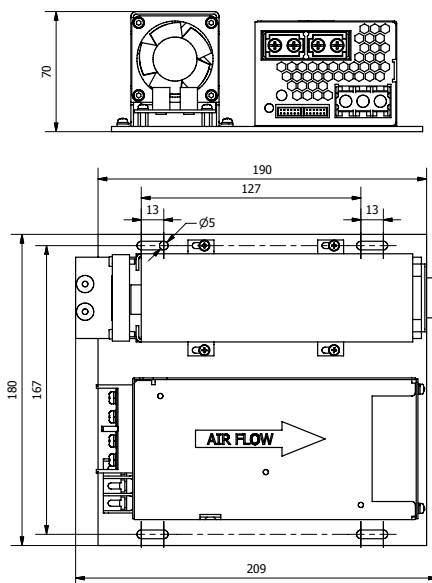


Fig 1. Mounting dimensions of LDD-60-4 driver

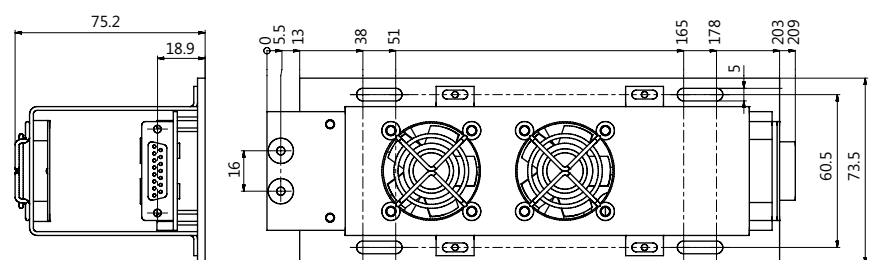
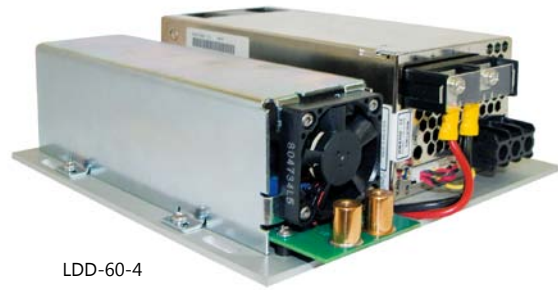


Fig 2. Mounting dimensions of LDD-80-4 driver



LDD-40-4



LDD-60-4



LDD-80-4

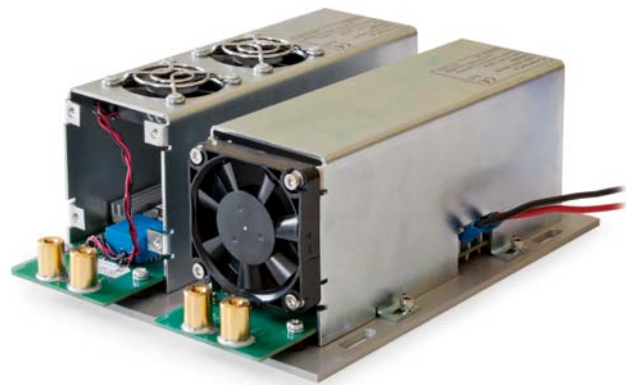


Fig 3. Example of possible customizations of laser diode drivers

DESCRIPTION OF CONTROL SIGNALS OF LDD SERIES DRIVERS

Connector type: 15 pin D-SUB female

Pin	Pin Name and function	Description
1	Enable +5 to +15 V, Low=OFF=0 V	The Enable function turns the output section of the power supply ON and OFF. When the power supply is enabled, current is delivered to load as programmed via $I_{\text{program}(+)}$, Pin 7. Rise times resulting from Enable are approximately 100 msec
2	Current OK output	Delivers low level on attempt to set current via Current program input higher as set limit by internal trimmer. Useful if connected diode has maximal rated current which is lower as maximal driver output current
3	Interlock	The Interlock function can be connected to external interlock switches such as door or overtemp switches
4	GND	Interface return
5	Voltage monitor 0–5 V	Monitor output for direct measuring of diode voltage
6	Current monitor 0–10V = 0– I_{outmax}	The output current of the supply can be monitored by Current monitor output
7	Current program 0–10V = 0– I_{outmax}	The power supply output current is set by applying a 0–10 V analog signal to Current program input
8	NC	
9	GND	Interface return
10, 11	+5 V 0.5 A output	Auxiliary +5V power supply for user
12, 13	NC	
14	+12 V 0.5 A output	Auxiliary +12V power supply for user
15	GND	Interface return