Laser Diode Drivers with AC Input

Laser Diode Drivers LDD for cw and pulsed lasers are intended for single laser diode driving as well as for driving of laser diode arrays. Input voltage, max. output power, max. output current, max. output voltage are selectable in wide ranges. The modules can be used also for medical applications. The maximal standatd available output power is 2kW, whereas there are standard laser diode drivers in serial production with 150W (LDD-150), 250W (LDD-250), 400W (LDD-400), 600W (LDD-600), 1kW (LDD-1000), and 1.5kW (LDD-1500).

LDD-150, LDD-250, LDD-400









Input	Voltage	90-254VAC, 50/60 Hz
	Current	3A 15A, depends on output power
Output	Maximal power (W _{max})	selectable in range 150W 2kW
	Maxiaml current (I _{max})	selectable in range: 5A 75A (max. power 150W, LDD-150) or 10A 100A (power 250W 1.5kW, LDD-250 LDD-1500)
	Maximum voltage (U _{max})	is obtained automatically from formula $W_{\text{max}} / I_{\text{max}}$
	Rise/fall time	< 1ms (10% to 90% full current), < 500µs on request
	Current regulation accuracy	< 1% of I _{max}
	Current value error	< 1% of I _{max}
	Current overshoot	< 1% of I _{max}
	Efficiency	> 80%
Safety	PFC value	> 0.98 (active)
	Leakage current	< 150 μA
	Safety approval	IEC60950, IEC60601-1
	Case fault voltage	4000 VAC
	EMC approval	EN55011 (Class A)
Interface	Connector	15 Pin "D"-Sub Female
	Current program	analog, 0-10 V
	Current monitor	analog, 0-10 V
	Voltage monitor	analog, 0-10 V
Environment	Cooling	forced air (with built-in fan)
	Operating temperature	0°C to +40°C
	Storage temperature	-20°C to +60°C
	Humidity	90%, non-condensing
Other	Size (L x W x H)	250x180x70mm (150W 400W), 290x220x70mm (600W 1.5kW
	Weight	1.8kg 2.9kg