



## Power Supplies and Cooling Blocks for Lumics Laser Modules



### Description:

Lumics collaborates with Ostech to provide high precision and cost effective power supplies and drivers for 14pin butterfly, high power pump modules and LuOcean Mini series laser. Standard interface are the RS232 port, and analog current control.

You can set arbitrary limits for currents, voltages and laser diode heat sink temperatures. The device can modulate the laser internally by on-board oscillator or may be configured for external modulation . Multiple circuits watch over the laser security to avoid any harm to the laser.

Every device has passed our 24h full power burn in and several safety tests for proving static discharge and transient protection.

### Features & Functions:

- RS 232 interface
- External analog and digital modulation
- Cw and pulsed operation
- Rise and fall time <20µsec option
- Bias current option for modulation
- Integrated driver for pilot laser
- Voltage, current and temperature limits
- Fan supply
- TEC driver included

### Benefits:

- Compact design
- Transient protection
- Save diode laser operation
- Customised interface options
- Cost-effective
- High Reliability
- LabVIEW driver

### Applications:

- Analytics and sensing
- Material processing
- Medical laser treatment
- Marking

## Versions and Characteristics

Type / Parameter	Fits for Lumics DL	Symbol	Typical	Unit
<b>1) DS11-LA04V06 / 4A, 6V Laser and Peltier Driver</b>				
	single mode 14pin butterfly laser modules			
	LUxxxMyyy (i.e. LU1064M400 - 400mW 1064nm single mode seed laser)			
Max. operating current		I <sub>max</sub>	4	A
Max. operating voltage		U <sub>max</sub>	6	V
Housing size (LxWxH) (1)			235x109x87	mm
Cooling block LU-CB-BTF14				
Housing size (LxWxH)			119x62x89	mm
<b>2) DS11-LA12V08 / 12A, 8V Laser and Peltier Driver</b>				
	multi-mode TO220 pump modules			
	LU0xxxTyyy (i.e. LU0975T090 - 9W 975nm pump module)			
Max. operating current		I <sub>max</sub>	12	A
Max. operating voltage		U <sub>max</sub>	8	V
Housing size (LxWxH) (1)			245x119x95	mm
Cooling block LU-CB1-TEC				
Housing size (LxWxH)			119x62x89	mm



### Comments:

- (1) Optionally in 19inch rack mount or integrated in powered air-cooled diode laser system  
 (2) 24V on request

Your ideas are welcome.



Type / Parameter	Fits for Lumics DL	Symbol	Typical	Unit
<b>3) DS11-LA18V08 / 18A, 8V Laser and Peltier Driver</b>				
	7W to 30W LuOcean Mini			
	LUxxxxDyyy-D (i.e. LU0980D300 - 980nm, 30W LuOcean Mini)			
Max. operating current		$I_{max}$	18	A
Max. operating voltage		$U_{max}$	8	V
Housing size (LxWxH) (1)			245x119x95	mm
Cooling block LU-CB2-TEC				
Housing size (LxWxH)			189x125x89	mm

### General Parameters

Supply Voltage (AC) (2)			100 - 230	ACV
Cw. operation current resolution			$I_{max}/4000$	
Current accuracy (refers to max. current)			+/- 2	%
Current repeatability			+/-0.5	%
Current noise			$I_{max}/10000$	rms
External analog modulation			0-4	V
Pulse mode, rise and fall time (depending on configuration, please specify)			1 to 20	$\mu$ sec
Ambient temperature			0 to 40	$^{\circ}$ C
Fan supply voltage ( $I_{max}=500mA$ )			12 - 24	V
Pilot laser supply voltage ( $I_{max}=150mA$ )			4-5	V
<b>Peltier module:</b>				
TEC max. peak current (to be specified)			+/-16	A
TEC max. peak voltage (to be specified)			+/-18	V
Max temperature control range (limited to 20-40 $^{\circ}$ C for 30W Laser)			-20 to +60	$^{\circ}$ C
Temperature control accuracy			+/-0.2	$^{\circ}$ C
Temperature resolution			0.01	$^{\circ}$ C

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