



Power Supplies and Drivers for Lumics Diode Lasers



Description:

Lumics provides high precision and cost effective power supplies and drivers. Standard interfaces 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 several safety tests for providing static discharge and transient protection.

Features & Functions:

- RS 232 interface
- External analog and digital modulation
- C.W. and pulsed operation
- Bias current option for modulation
- Integrated driver for pilot laser
- Voltage, current and temperature limits
- Fan supply
- TEC driver option

Benefits:

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

Applications:

- Solid state laser pumping
- Material processing
- Medical laser treatment
- Illumination
- Marking
- Analytics and sensing

Versions and Characteristics

Type / Parameter	Fits for Lumics DL	Symbol	Typ	Unit
1) LU_DR_AC18A14V_A_AC / 250W	e.g. LU1470C030			
Max. operating current		I_{max}	18	A
Max. operating voltage		U_{max}	14	V
Housing size (LxWxH) / table top (1)			245x119x95	mm
2) LU_DR_AC20A25V_B_AC / 500W	e.g. LU0808C110			
Max. operating current		I_{max}	20	A
Max. operating voltage		U_{max}	25	V
Housing size (LxWxH) / 19inch rack mount 2 height units			337x483x88	mm
3) LU_DR_AC35A30V_B_AC / 1050W	e.g. LU09xxC280			
Max. operating current		I_{max}	35	A
Max. operating voltage		U_{max}	30	V
Housing size (LxWxH) / 19inch rack mount 2 height units			337x483x89	mm

General Parameters

Supply Voltage (AC) (2)	100 - 230	ACV
Current accuracy (refers to max. current)	+/- 2	%
Current repeatability	+/- 0.5	%
Current noise	$I_{max}/1000$	rms
External analog modulation input voltage (3)	0-4	V
Pulse mode, rise and fall time (depending on configuration)	30 to 200	μ sec
Operating temperature	0 to 40	$^{\circ}$ C
Fan supply voltage ($I_{max}=500mA$)	12 - 24	V
Pilot laser supply voltage ($I_{max}=150mA$)	5	V
Laser temperature sensor	NTC (10k)	

Comments:

(1) Optionally in 19inch rack mount or integrated in powered air-cooled diode laser system

(2) 24V on request

(3) Max. input voltage 5V (e. g. for digital modulation)

We manufacture diode lasers.