

LUCE

Q-Switched Diode Pumped Solid State Laser

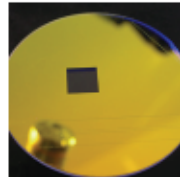
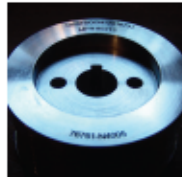
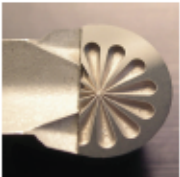


FEATURES

Up to 40 W
200 kW Peak Power
Up to 200 kHz repetition rate
@1064 @532 @355 nm
Electronic Pulse Energy Modulation
Sealed compact and rugged
Monolithic Design
Field replaceable laser diodes
Air Cooling
Low heat waste

APPLICATIONS

» Material processing
» Marking
» Scribing
» Thin film removal
» Micro-machining
» Nonlinear optics



LUCE

Q-Switched Diode Pumped Solid State Laser

LUCE family comprises innovative air-cooled CW-diode pumped Q-switched lasers aimed at the micro-machining industrial applications. LUCE lasers offer superior operation flexibility, compactness, and performance/cost ratio to OEM system integrators.

The high peak power and the excellent beam quality of LUCE-1064 make it the ideal source for the most demanding industrial and scientific applications.

LUCE lasers are available at 1064nm, 532nm and 355nm and can be configured in two main versions:

» SINGLE UNIT

The resonator and the pumping unit are integrated in one single block without any external fiber connection.

» DUAL UNIT

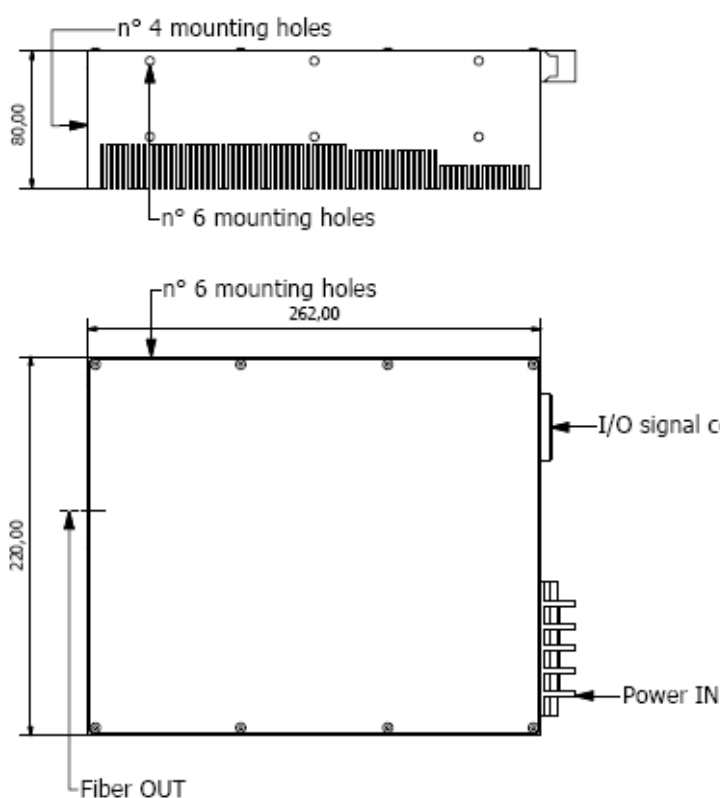
The Resonator Unit is linked to its Pumping Unit via a fiber optic cable and a Q-Switch cable. This archi-

ture allows to separate the diode laser unit from the resonator resulting in a miniaturized sealed and rugged laser head suitable to fit in small spaces. Moreover, power electronics and pumping laser diodes dissipate their heat far away from the resonator unit. Long lifetime fiber coupled pumping diodes are connected to a high power fiber optic cable that can be easily disconnected, thus simplifying integration, installation and service operations.

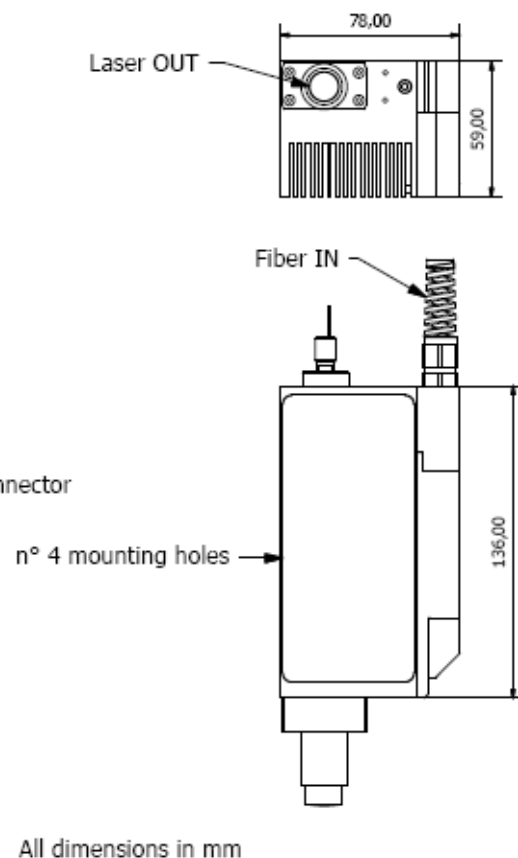
OPTIONS AVAILABLE

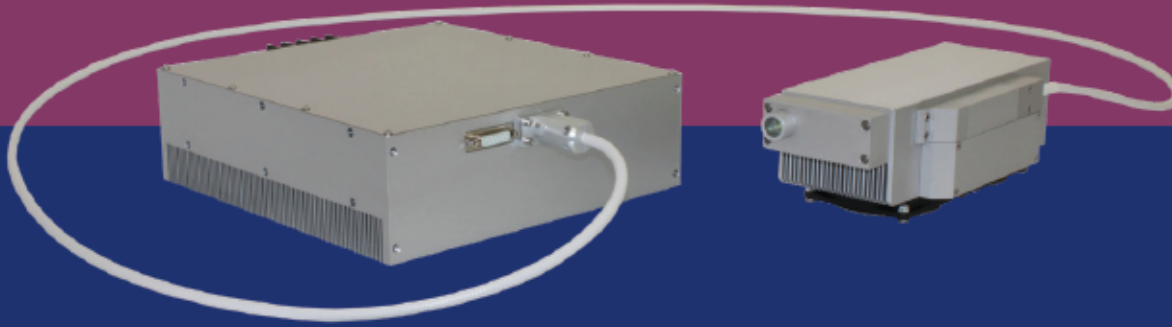
- » Beam Expanding and collimation optics
- » Red aiming beam
- » Mechanical shutter
- » Extended frequency range
- » Pulse Width Modulation
- » Circular Polarization
- » Monitoring Photodiode
- » AC-DC Power Supply

Pumping Unit Luce 10W-20W



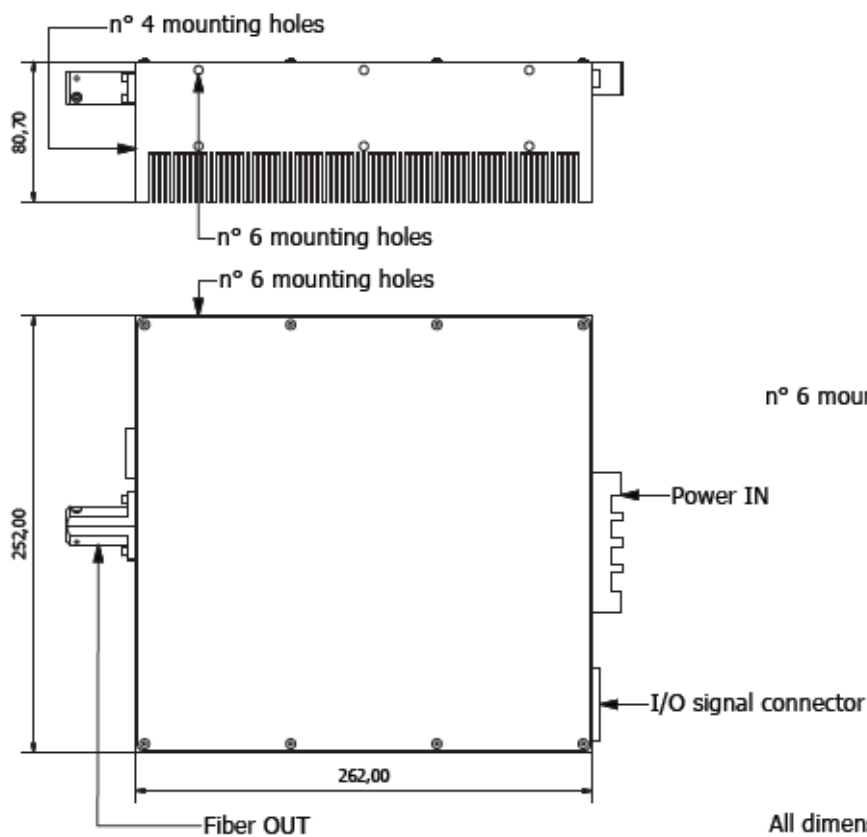
Resonator Luce 10W-20W



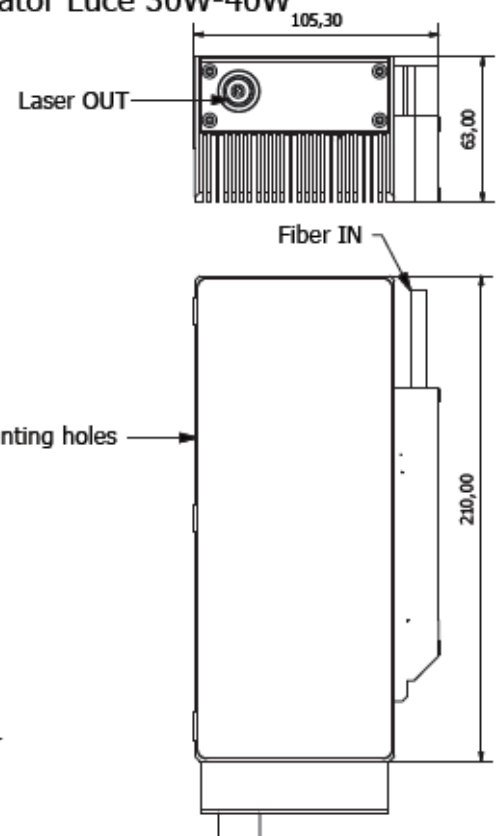


Models	5W	10W	20W	30W	40W	3W	6W	1W	2.5W
Wavelength	1064nm			532nm			355nm		
Q-Switched Repetition rate	10 to 100 kHz (Option: Single Shot to 200 kHz)								
CW Operating Mode	yes			yes			no		no
Pulsewidth	4 to 25 ns			7 to 40 ns			4 to 30 ns		5 to 30 ns
Polarization	Linear 100:1 (Option: circular polarization)								
Beam diameter	< 1 mm (Option: beam expander)								
Beam quality (M²)	< 1.5	< 2	2	2.2	2.5	< 1.5	< 2	< 1.5	< 2
Cooling	Air cooled								

Pumping Unit Luce 30W-40W



Resonator Luce 30W-40W



All dimensions in mm



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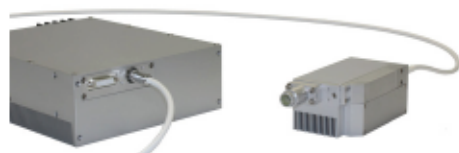
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SOL



LUCE



WEDGE



BDL



BFP