

Compact Fiber Lasers

The industry's most compact fiber lasers with power output up to 3kW



The compact nLIGHT® fiber laser family delivers the highest power in the smallest footprint up to 3kW. A modulation rate up to 100kHz and rise and fall times of less than 5 μ s provide improved cutting and welding performance. These compact nLIGHT fiber lasers feature true hardware-based back reflection protection, easy onsite servicing and reliable operation in even the harshest manufacturing environments.

Features

- 2 to 3kW models in a compact form factor optimizes shop floor space.
- Hardware-based back reflection protection allows uninterrupted, failsafe processing of even the most reflective metals with no damage to the laser.
- Easy onsite serviceability maximizes uptime and productivity.
- Durable design ensures continuous operation in manufacturing environments.
- Advanced electronics allow faster piercing and processing of fine features along with smaller affected heat zones.

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nLIGHT Compact Fiber Laser Specifications

Models	CMP-2000	CMP-2500	CMP-3000
Optical Specifications			
Mode of Operation	CW/Modulated		
Polarization	Random		
Maximum Average Power	2kW	2.5kW	3kW
Power Tunability	5 – 100%		
Power Variation, 8-Hour	≤ 1%		
Modulation Frequency	≤ 100kHz		
Rise and Fall Times	≤ 5μs		
Beam Quality	50μm fiber ≤ 2.3mm-mrad 100μm fiber ≤ 4.0mm-mrad 200μm fiber ≤ 11.0mm-mrad		
Wavelength	1070 ± 10nm		
Electrical Specifications			
Supply Voltage	380 – 480VAC (5-wire 3 phase), 50/60Hz		
Control Interfaces, Standard	External hardware control, RS-232, Ethernet		
Control Interfaces, Optional	EtherCAT, Ethernet/IP, DeviceNet, Profinet, Profibus		
Mechanical Specifications			
Dimensions (W x D x H)	445 x 927 x 625mm		
Optical Fiber	10, 20, 30m, QBH connector standard		
Cooling Method	Water		
Environmental Specifications			
Operating Temperature ¹	+10 to +40°C		
Storage Temperature	-10 to +60°C		
Relative Humidity	10 to 80%		

¹ Non-condensing or with use of CDA.



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