



nLIGHT Multimode Rackmount Fiber Lasers

Small form factor rackmount fiber laser with power up to 1.5kW.



The nLIGHT family of multimode rackmount fiber lasers delivers power outputs from 500 to 1500W with multiple fiber options and excellent beam quality for advanced cutting, welding and additive manufacturing performance. The small size of these fiber laser facilitates easy integration into machine tools.

nLIGHT rackmount fiber lasers feature true hardware-based back reflection protection, easy onsite servicing and reliable operation in even the harshest manufacturing environments.

Key Features & Benefits

- 500W – 1500W models provide power level options to support a range of applications.
- 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.

nLIGHT Multimode Rackmount Fiber Laser Specifications

Models	CFL-500	CFL-700	CFL-1000	CFL-1200	CFL-1500
Optical Specifications					
Mode of Operation	CW/Modulated				
Polarization	Random				
Maximum Average Power, CW	500 W	700 W	1 kW	1.2 kW	1.5 kW
Maximum Peak Power, Modulated	500 W	700 W	1 kW	1.2 kW	1.5 kW
Power Tunability	5 – 100%				
Power Variation, 8-Hour	≤ 1%				
Modulation Frequency	≤ 100 kHz				
Rise and Fall Times	≤ 5 μs				
Beam Quality 50 μm fiber 100 μm fiber 200 μm fiber	≤ 2 mm-mrad ≤ 4 mm-mrad ≤ 11 mm-mrad				
Wavelength	1070 ± 10 nm				
Electrical Specifications					
Operating Voltage, Single-Phase	200 – 240 VAC				
Operating Voltage Frequency	50/60 Hz				
Control Interface	External hardware control/RS-232/Ethernet				
Mechanical Specifications					
Dimensions (W x D x H)	480 x 677 x 177 mm				
Optical Fiber ¹	10, 20, 30 m, 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.

Laser Safety

This laser product does NOT comply with IEC 60825-1 or 21CFR1040.10/21CFR1040.11 and is solely intended to be integrated into a laser product certified by the Purchaser. The Purchaser acknowledges their product must comply with application regulations before it can be sold to an end user.



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