Multimode Rackmount Fiber Lasers

Small form factor rackmount fiber lasers with power up to 1.5kW



nLIGHT® multimode rackmount fiber lasers deliver power outputs from 500 to 1500W with multiple fiber options and excellent beam quality for advanced cutting, welding and additive manufacturing. The small size of these lasers 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.

Features

- 500 to 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

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Models	CFL-500	CFL-700	CFL-1000	CFL-1200	CFL-1500	
Optical Specifications						
Mode of Operation	CW/Modulated					
Polarization	Random					
Maximum Average Power	500W	700W	1kW	1.2kW	1.5kW	
Power Tunability	5 – 100%					
Power Variation, 8-Hour	≤ 1%					
Modulation Frequency	≤ 100kHz					
Rise and Fall Times	≤ 5µs					
Beam Quality	50μm fiber ≤ 2.0mm-mrad					
	100µm fiber ≤ 4.0mm-mrad					
	200µm fiber ≤ 11.0mm-mrad					
Wavelength	1070 ± 10nm					
Electrical Specifications						
Operating Voltage, Single-Phase	200 – 240VAC					
Operating Voltage Frequency	50/60Hz					
Control Interface	External hardware control, RD-232, Ethernet					
Mechanical Specifications						
Dimensions (W X D x H)	480 x 677 x 177mm					
Optical Fiber ¹	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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