



nLIGHT's medium power CW/QCW Fiber Laser outputs a near diffraction limited CW or QCW 1090nm beam. Designed to meet maintenance-free 24/7 industrial operation, the air-cooled system offers a high brightness solution to meet the rigors of the laser material processing industry.

The CW/QCW Fiber Laser platform integrates the best of nLIGHT's industry-leading technologies to deliver a highly reliable cost-effective, medium power fiber laser solution:

- Powered by nLIGHT Pearl™ single-emitter diode laser modules, which set the standard of excellence in high-brightness, high-reliability diode lasers
- Incorporates nLIGHT LIEKKI™ active fiber with proprietary Direct Nano-particle Deposition (DND) technology that provides high efficiency and minimizes photodarkening

Features

- Power up to 400W peak power and 100W average power
- QCW modulation frequency up to 65kHz
- WPE 25%
- 19" rack mountable
- Aircooled

Applications

- Cutting
- Welding
- Scribing and drilling
- Soldering and bonding
- Annealing
- Sintering
- Micro-machining
- Scientific research

Proven Performance

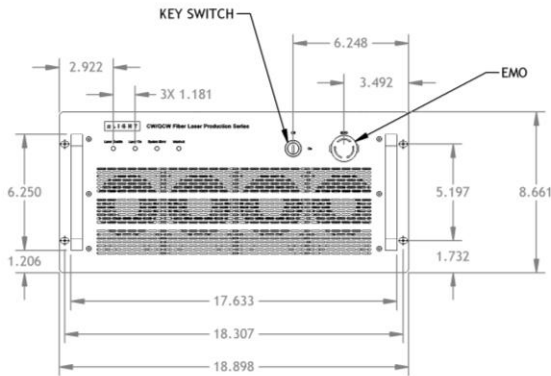
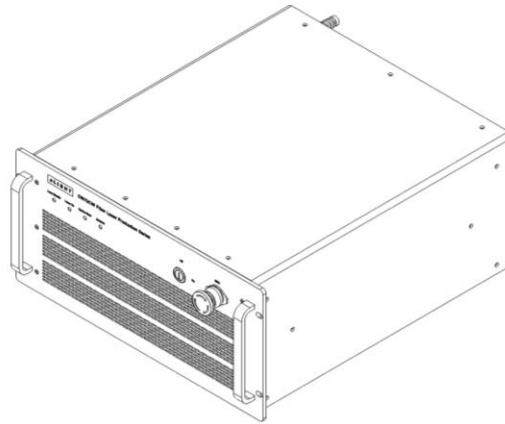
Typical Device Performance

Optical		NL-M100-200-QCW-A	NL-M100-400-QCW-A
Mode of operation		CW/QCW	
Polarization		Random	
Wavelength	nm	1090 ± 5	
Emission line width (FWHM)	nm	< 5	
Nominal output power	W	100	
Maximum peak power	W	200	400
Output power range	%	10 – 100	
Output power stability (8hrs)	%	< 3	
Beam diameter	mm	5	
Beam quality (single mode)	M ²	< 1.1	
Electrical			
Operating voltage	VAC	110 – 240	
Operating voltage frequency	Hz	50 – 60	
Power consumption (at 20°C)	W	600	1000
Modulation mode			
Rise/Fall time	µs	5	
Modulation Frequency	kHz	0 – 65	
Duty ratio	%	0 – 50	0 – 25
Mechanical			
Dimensions		5U	
Output fiber connection*		nLIGHT Beam Delivery	
Output Collimator Dimensions*	mm	Φ25 × 120	
Output fiber cable length*	m	3	
Minimum fiber cable bend radius	mm	> 80	
Weight	kg	35	40
Cooling method		Air	
General condition			
Operating temperature**	°C	+10 to +30	
Storage temperature	°C	-10 to +60	
Relative Humidity**	%	10 to 80	

*May be customized

** A non-condensing environment is required for storage and operation.

Package Dimensions



CFR Regulation

This laser does NOT comply with IEC 60825-1 or 21 CFR 1040 for complete laser products and is solely intended to be integrated into a certified laser product. This device is for US export, or for use as an OEM or replacement component only. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.

Notice

nLIGHT continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.

