



nanoPFL™|Green provides a robust solution for materials processing and photovoltaic applications. Designed to meet the highest standards of reliability and durability, the air-cooled system outputs a near diffraction limited beam at 532nm.

The PFL™ platform integrates nLIGHT's industry-leading technologies to deliver a high-performance pulsed fiber laser solution:

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

nLIGHT's nanoPFL™ platform provides plug and play integration with maintenance-free operation.

Features

- High peak power: >90kW
- Short pulse width: <800psec
- Powered by Pearl™ SE diode laser engine
- Liekki™ DND fiber technology
- Simple, plug and play integration
- Air-cooled

Applications

- PV scribing
- PV edge deletion
- Marking and engraving
- Trimming
- Micro-machining
- Precision drilling

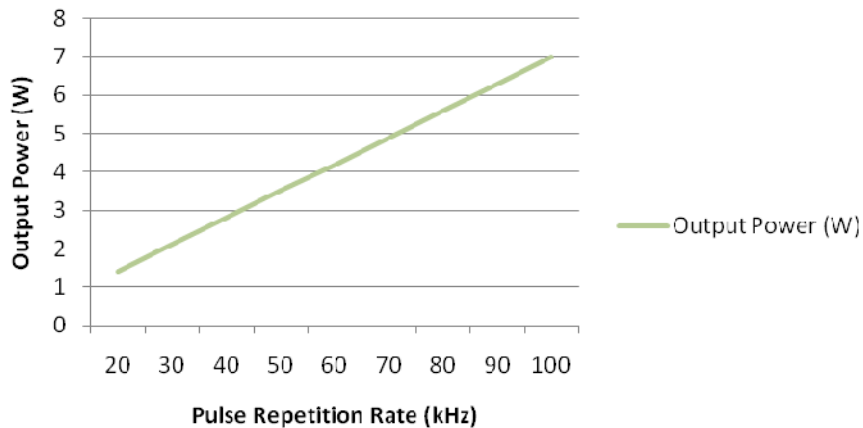
Proven Performance

Typical Device Performance

Optical		NL-NPFL-3-532	NL-NPFL-7-532
Mode of operation		Pulsed	
Polarization		Linear / Horizontal	
Wavelength	nm	532	
Nominal average power	W	3	7
Pulse width	ps	<800	
Beam quality	M ²	<1.2	
Peak power	kW	>90	>90
Pulse to pulse stability	%RMS	<2	
Average power stability (8hrs)	%	<2	
Output beam diameter(@1/e ²)	mm	<0.6	
Output beam divergence angle(full)	mrad	<5	
Pulse repetition rate	kHz	20-50	20-120
Electrical			
Operating voltage*	V _{AC}	200-240	
AC frequency	f _{AC}	50-60	
Control		Analog / RS232	
Mechanical			
Cooling method		Air	
Thermal			
Operating temperature	°C	0 to +40	
Storage temperature	°C	-20 to +60	
Relative humidity	%	5 to 95	

* 110V available upon request

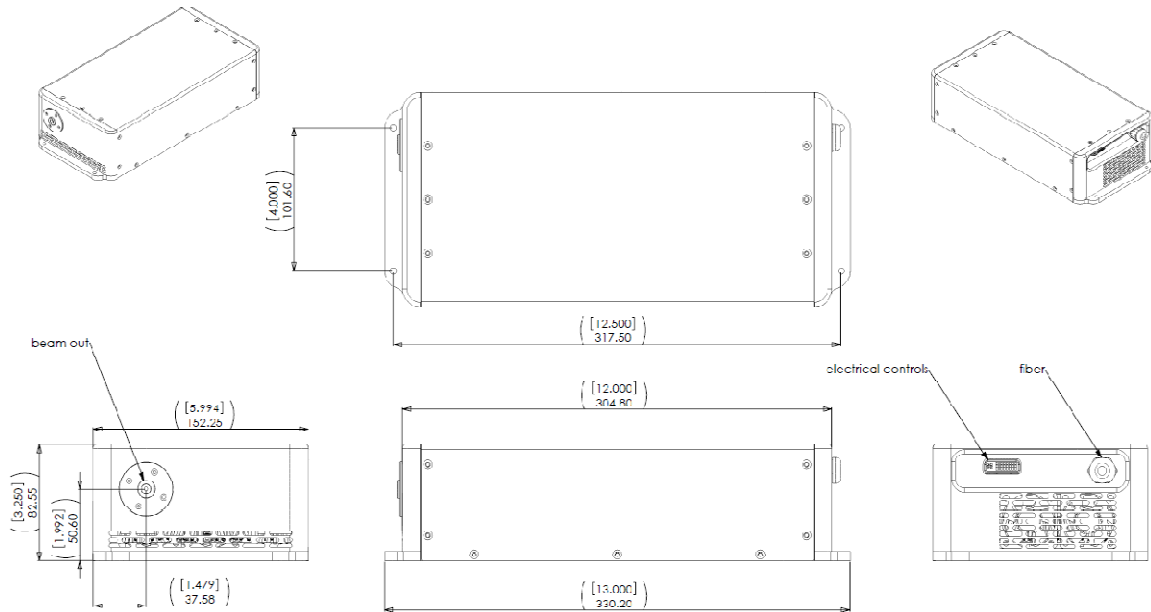
nanoPFL | Green Power Curve



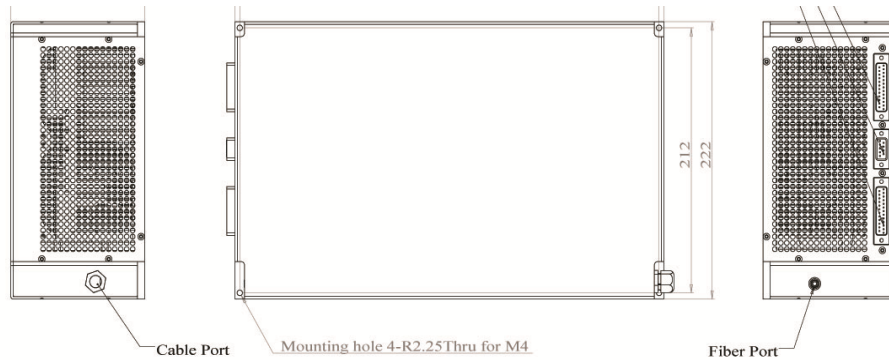
Proven Performance

Package Dimensions

Laser Head



Driver



CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.

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Notice

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