

639nm Narrow Linewidth Fiber Lasers

Based on single frequency seed laser, low noise fiber amplifier and high efficiency frequency convert technique, Precilasers can provide narrow linewidth 639nm CW lasers, features with high frequency stability, long life and good beam quality.

Features

- High Power
- Narrow Linewidth
- Good Beam Quality
- High Power Stability

Applications

- Interference Lithography
- Precision Measurement



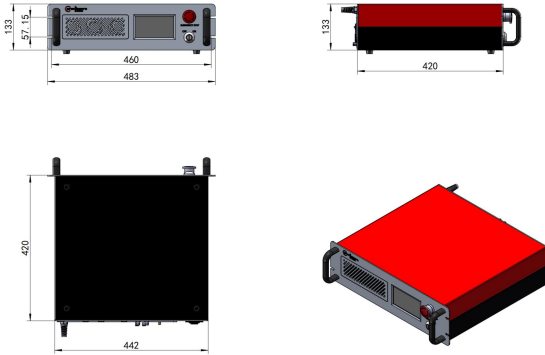
Specification			
Partnumber	FL-SF-639-X ⁽¹⁾ -CW		
Center Wavelength	639.00nm		
Linewidth ⁽²⁾ (100 us integration)	<20kHz		
Operational Mode	CW		
Output Power	>0.5W	>2W	>5W >10W
Beam Diameter	1±0.15 mm		
Beam Waist Location	output aperture±0.5m		
Beam Divergence (full angle)	<1mrad		
Beam Circularity	0.9-1.1		
Beam Pointing Stability (PP)	<15μrad		
Beam Quality	TEM ₀₀ , M ² <1.1		
Polarization	linear, >20dB		
Power Stability	<0.75% @3hours, RMS		
Relative Intensity Noise	<0.2%(RMS, 10Hz-10MHz integration)		
Cooling	Air cooling /Water cooling		Water cooling
Warm-Up Time			
Cold Start	<2 hours		
Warm Start	<30 minutes		
Demension and Weight			
Controller Size	≤483mm x 420mm x 133mm	≤483mm x 420mm x 105mm	
Laser Head Size	≤358mm x 90mm x 70mm(0.5W,2W)	≤380mm x 85mm x 52mm (5W,10W)	
Chiller Size	NA	≤58cm x 29cm x 52cm	
Chiller Weight	≤25kg		
Cable Length Between Laser Head And Controller	>1.5m		
Environment and Power Supply			
Operating Temperature (No condensing)	15-30 °C (Air cooling)	15-35 °C (Water cooling)	
Power Supply	100V-240V, AC, 50/60Hz		
Communication	RS422		

(1)X indicates laser power,unit in W.For example output power is 10W: FL-SF-639-10-CW.

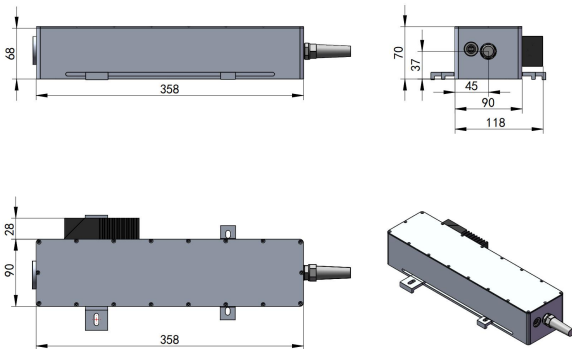
(2)Linewidth measured by delayed self-heterodyne

**Air cooling Version
(Output power: 0.5W,2W)**

Laser Controller



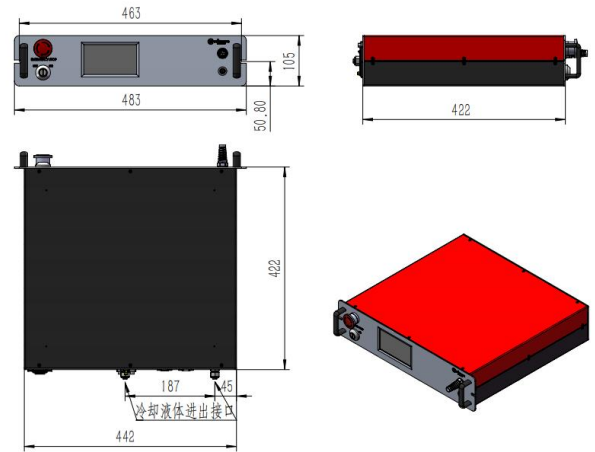
Laser Head



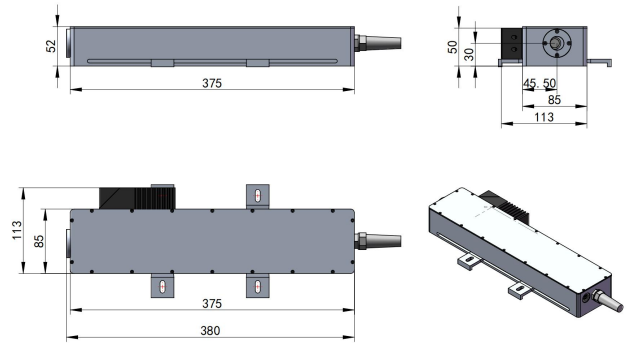
Non-dismantle fiber length $\geq 1.5\text{m}$ between controller and laser head

**Water cooling Version
(Output power:5W,10W)**

Laser Controller



Laser Head



Non-dismantle fiber length $\geq 1.5\text{m}$ between controller and laser head



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⚠ Laser Hazard

Visible or invisible laser radiation, avoid eye or skin exposure to direct, reflected or filtered radiation.
CLASS 4 Laser Products