

193nm 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 193nm CW lasers, features with high frequency stability, long life and good beam quality.

Features

- Narrow Linewidth
- Good Beam Quality
- Never Mode Hop
- CW Laser

Application

- Precision Measurement



Specification		
Partnumber	FL-SF-193-X ⁽¹⁾ -CW	
Center Wavelength	193.368nm	
Linewidth ⁽²⁾ (100 us integration)	<100kHz	
Operational Mode	CW	
Output Power	>3mW	>10mW
Beam Diameter	1±0.1 mm	1.1±0.1mm
Beam Waist Location	output aperture±1m	
Beam Divergence (full angle)	<0.4mrad	
Beam Circularity	0.9-1.1	
Beam Pointing Stability	<50urad @30min, RMS	
Beam Quality	TEM ₀₀ , M ² <1.5	
Polarization	linear, >20dB	
Power Stability	<1% @2hours, RMS	
Relative Intensity Noise	<0.5%(RMS, 10Hz-10MHz integration)	
Cooling	Water cooling	

Warm-Up Time	
Cold Start	<2 hours
Warm Start	<30 minutes

Demension and Weight	
Controller Size	≤483mm x 420mm x 133mm (3mW)
Laser Head Size	≤550mm x 350mm x 131mm (3mW)
Chiller Size	≤58cm x 29cm x 52cm
Laser Head Weight	≤30kg
Controller Weight	≤30kg
Chiller Weight	≤25kg
Cable Length Between Laser Head And Controller	>10m

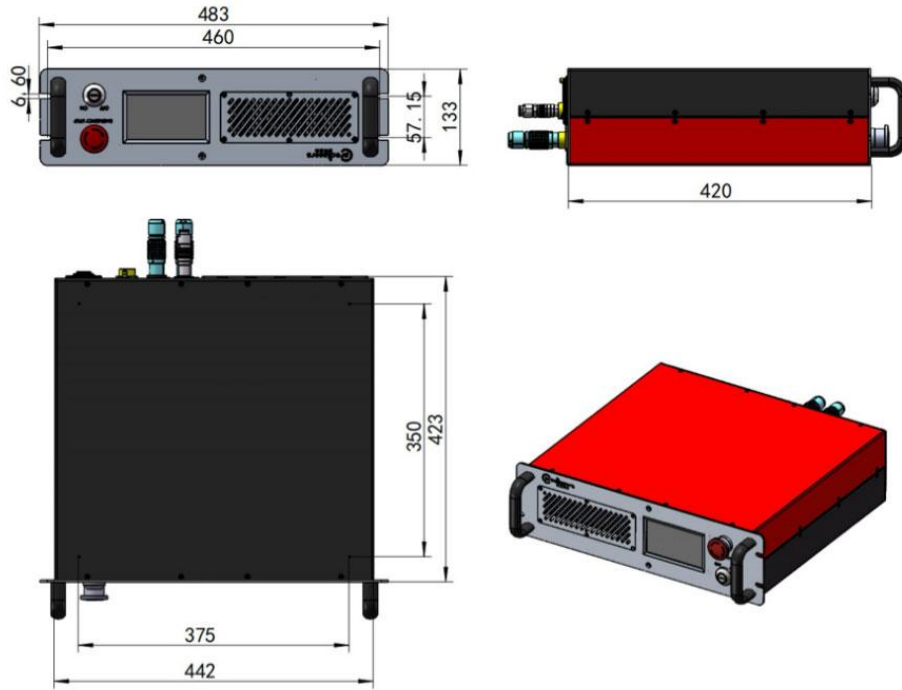
Environment and Power Supply	
Operating Temperature (No condensing)	15-35 °C
Power Supply	100V-240V, AC, 50/60Hz
Power Consumption	<400W
Communication	RS422

Option	
Frequency Stabilization Option	Wavelength stability<±10fm@24h
Purge Air Option	Provide air pump

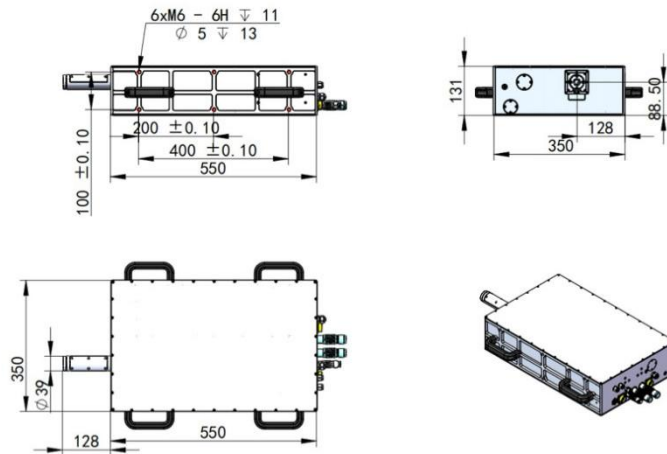
(1)X indicates laser power,unit in W.For example output power is 3mW: FL-SF-193-0.003-CW.
(2)Linewidth measured by delayed self-heterodyne

**Water cooling version size
(Output power: 3mW)**

Laser Controller



laser Head



Non-dismantle fiber length $\geq 10\text{m}$ 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