

SLMFNS1047 Series Frequency Stabilized 1047nm Single Longitudinal Mode Laser System up to 800mW

Overview

The SLMFNS1047 series frequency stabilized single longitudinal mode laser is ideal for applications that require a wavelength of 1047nm and output power levels up to 800mW. The laser is constructed with features of stable frequency, low frequency noise, and FDA-compliant system with driver. The laser is widely used in optical frequency standards, gravitation wave detection, tests of fundamental physics, atomic clocks, high resolution spectrum, laser radar, precision measurement and many other applications.

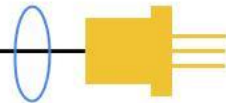


Specifications

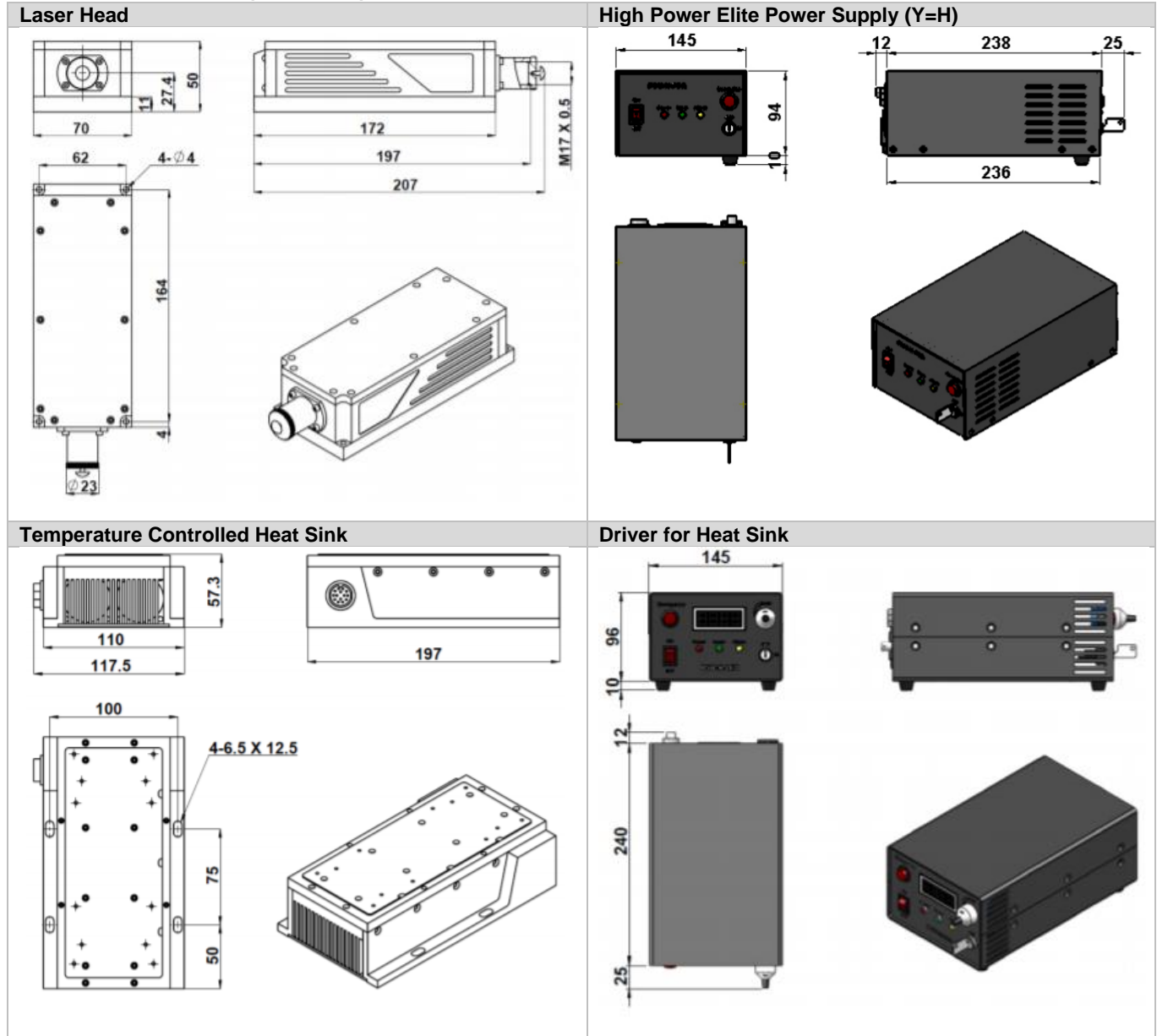
Model Number	SLMFNS1047-XYP		
Wavelength (nm)	1047±1		
Operating mode	CW		
Output power (mW)	>100 (X=100), >200 (X=200), >300 (X=300)	>500 (X=500), >800 (X=800)	
Power stability (rms, over 4 hours)	<5% (P=A), <3% (P=E), <2% (P=2)	<5% (P=A), <3% (P=E)	
Transverse mode	TEM ₀₀		
Longitudinal mode	Single		
Spectral linewidth (nm)	<0.00001		
Noise of amplitude (rms, 1Hz~20MHz)	<1%, typical <0.5%		
Beam diameter at aperture (1/e ² , mm)	<2.0		
Beam divergence, full angle (mrad)	<1.5		
M ² factor	<1.5		
Coherent length (m)	>50		
Warm-up time (minutes)	<10		
Pointing stability after warm-up (mrad)	<0.05		
Frequency shift over 8 hours (MHz)	<±200		
Frequency shift with Temp (MHz/°C)	<200		
Dimensions of laser head (mm)	197(L)×70(W) ×50(H) mm ³		
Weight of laser head (kg)	2.0 kg		
Power supply			
High Power Elite Power Supply (Y=H)	Input voltage	90-264VAC	
	Dimensions	275(L) ×145(W) ×104(H) mm ³	
	Weight	2.3 kg	
	Notes	Fixed output power	
Dimensions of Temperature controlled heat sink	197(L)×117.5(W) ×57.3(H) mm ³		
Weight of Temperature controlled heat sink	1.6 kg		
Dimensions of Driver for heat sink	277(L)×145(W) ×106(H) mm ³		
Weight of Driver for heat sink	2.6 kg		
Expected lifetime (hours)	10,000		
Warranty period	10 months		
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IV		

Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.



Outline Dimensions (unit: mm)



Note: The above specifications are subject to change without notice.