



DPS589 Series Environmentally Sealed 589nm CW DPSS Laser System up to 50mW

Overview

The DPS589 series diode pumped solid state (DPSS) laser is ideal for applications that require a wavelength of 589nm and output power levels up to 50mW. The laser features a compact design, good sealing, long lifetime, easy operation working under the pressure of 0.02kPa, and FDA-compliant system with driver. The laser is widely used in scientific experiment, optical sensor, measurement, instrument, communication, spectrum analysis, and many other applications.

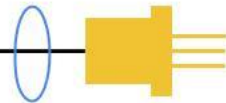


Specifications

Model Number	DPS589-XYZRQ	
Wavelength (nm)	589±1	
Output power (mW)	>30 (X=30), >50 (X=50)	
Transverse mode	TEM ₀₀	
Operating mode	CW	
Power stability (rms, over 4 hours)	<5% (Z=A), <3% (Z=E), <2% (Z=2), <1% (Z=D)	
M ² factor	<1.5	
Beam diameter at aperture (1/e ² , mm)	0.7±0.05	
Beam divergence, full angle (mrad)	<1.5	
Polarization ratio	>100:1 Horizontal ±5 degree	
Warm-up time (minutes)	<5	
Pointing stability after warm-up (mrad)	<0.05	
Pointing stability over temp (urad/°C)	<8	
Beam height from base plate (mm)	19	
Power consumption (W)	<30	
Shock tolerance (6ms)	7g laterally, 15g vertically	
IP rating	IP67 (R=W)	IP65 (R=D)
Operating temperature (°C)	0-60	10-35
Max heat dissipation of head	10W at 50°C	4W at 25°C
Dimensions of laser head (mm)	100(L)×40(W) ×40(H) mm ³	
Weight of laser head (kg)	0.36 kg	
Power supply options		
High Power Elite Power Supply (Y=H)	Input voltage	90-264VAC
	Dimensions	236 (L) ×145(W) ×104(H) mm ³
	Weight	2.3 kg
	Notes	Fixed output power, only for IP67 rating
A Version Elite Power Supply (Y=F)	Input voltage	90-264VAC
	Dimensions	162(L) ×144(W) ×55(H) mm ³
	Weight	0.5 kg
	Notes	Fixed output power, only for IP65 rating
A Version Laboratory Power Supply (Y=T)	Input voltage	90-264VAC
	Dimensions	162(L) ×144(W) ×70(H) mm ³
	Weight	0.6 kg
	Notes	Adjustable output power, only for IP65 rating
Modulation option	None (Q=0)	
	TTL	1Hz-1kHz (Q=T1), 1kHz-10kHz (Q=T2), 10kHz-30kHz (Q=T3)
	Analog	1Hz-1kHz (Q=A1), 1kHz-10kHz (Q=A2), 10kHz-30kHz (Q=A3)
Expected lifetime (hours)	10,000	
Warranty period	10 months	
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IIIb	

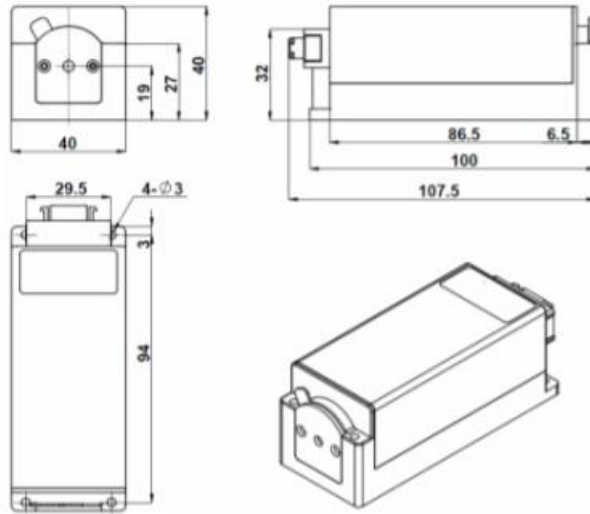
Remarks:

- 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.



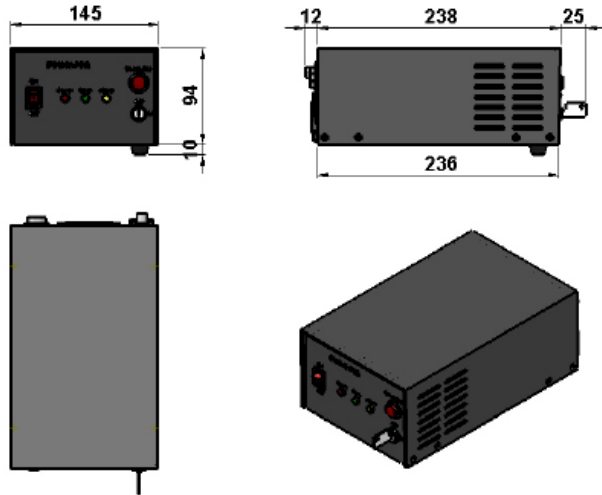
Outline Dimensions (unit: mm)

Laser Head



Power Supply Options

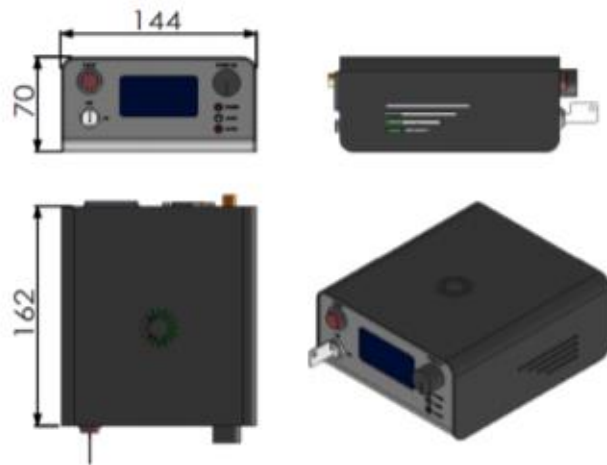
High Power Elite Power Supply (Y=H)



A Version Elite Power Supply (Y=F)



A Version Laboratory Power Supply (Y=T)



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