



Passively Q-Switched Laser System

QSLQ Series

Data Sheet

Overview

The QSLQ series is a family of UV diode pumped solid state (DPSS) Q-switched lasers and delivers up to 150mW average power. The laser series is constructed with features of compact design, short pulse duration up to ~1.3ns, long lifetime, easy operation, cost effectiveness, and FDA-compliant system with driver. The QSLQ series laser is widely used in UV curing, microelectronics, CD carving, laser medical treatment, scientific experiment, and many other applications.

Features

- Ultraviolet at 266nm and 355nm
- Q-switched operating mode
- Pulse energy up to 15uJ
- Short pulse duration ~1.3ns, ~4ns
- Ultra-compact design
- FDA compliant

Applications

- UV curing
- Micro-electronics
- CD carving
- Laser medical treatment
- Scientific experiment

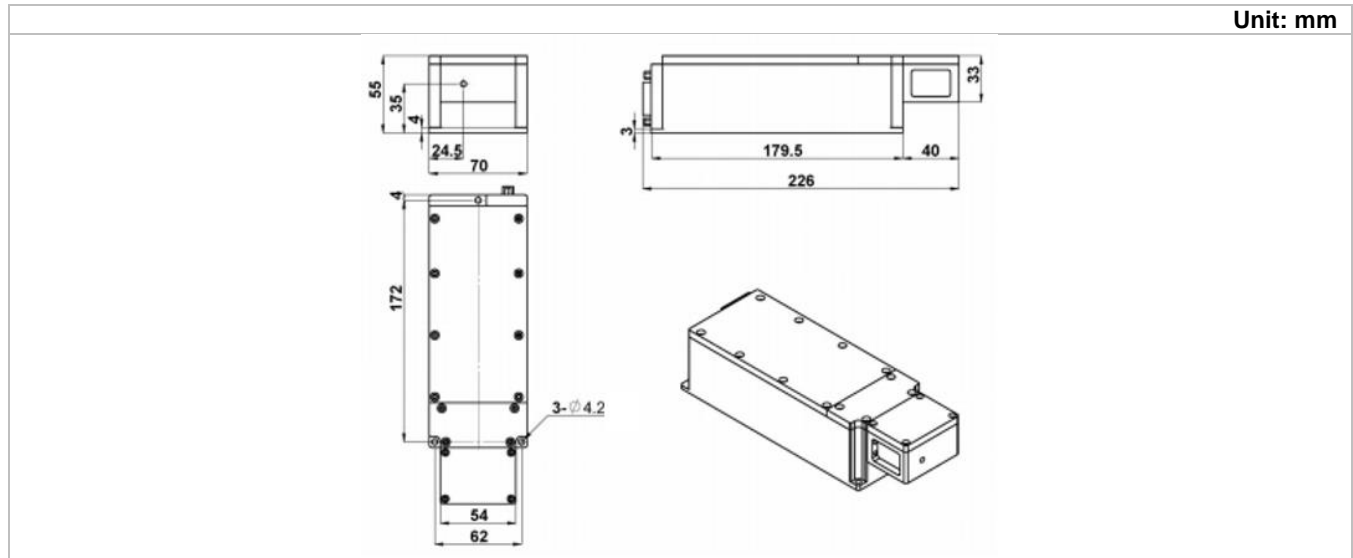
266-355 nm Specifications

Parameter		QSLQ266		QSLQ355	
Wavelength		266±1 nm		355±1 nm	
Operating mode		Frequency conversion of Q-switched pulsed laser			
Max average power		~20mW, ~30mW	~5mW, ~10mW, ~20mW, ~30mW	~100mW, ~150mW	
Single pulse energy		~2uJ, ~3uJ	~1uJ, ~2uJ, ~3uJ	0.1-15uJ	
Average power stability (rms, over 4 hours)		<5%, <3%		<5%	
Pulse duration		~4 ns	~1.3 ns	~4 ns	~1.3 ns
Peak power		0.8-2.3kW	0.25-0.75kW	0.8-11.5kW	0.25-3.75kW
Repetition rate	Internal Fixed	3kHz, 4kHz, 5kHz		3kHz, 4kHz, 5kHz	
	External Trigger	3kHz-5kHz		3kHz-5kHz	
	QCW	Between 9kHz-12kHz			
Transverse mode		Near TEM ₀₀ , Elliptical			
Beam diameter at aperture		~1.0 mm			
M ² factor		<2			
Polarization ratio		>50:1, Horizontal			
Warm-up time		<5min			
Operating temperature		10-35°C			
Warranty period		10 months			

Remarks:

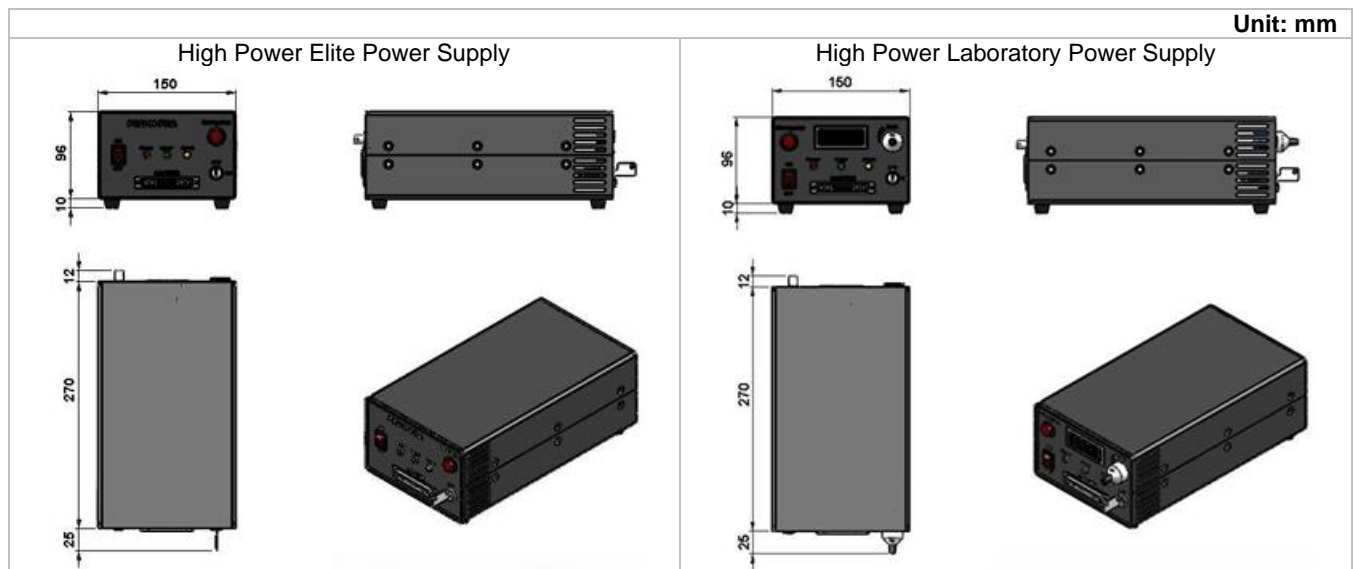
- Due to the Walk-off effect of nonlinear crystals, the beam quality of the 266nm UV laser is not as good as that of the 1064/532nm laser.
- Average power (mW) = Single pulse energy (µJ) * Rep. rate (kHz)
- Peak Power (W) = Single Pulse Energy (µJ) / Pulse Duration (µs)
- The laser head needs to be used on a heat sink with good heat dissipation.
- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.

QSLQ Series Laser Head Dimensions



Parameter	QSLQ Series
Dimensions	226(L)×70(W) ×55(H) mm ³
Weight	1.3 kg
Beam height from base plate	35 mm
Beam exit (from side)	24.5 mm

QSLQ Series Power Supply Dimensions



Parameter	High Power Elite Power Supply	High Power Laboratory Power Supply
Dimensions	307(L) ×150(W) ×106(H) mm ³	307(L) ×150(W) ×106(H) mm ³
Weight	2.9 kg	2.9 kg
Input voltage	90-264VAC	90-264VAC
Feature	Standard	Adjustable power

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration QSLQ[1][2][3][4][5][6]						
QSLQ = Laser Model Series	[1] = Wavelength	[2] = Pulse Width	[3] = Average Power	[4] = Power Supply	[5] = Power Stability	[6] = Repetition Rate
	266= 266nm 355= 355nm	Blank= ~4ns S= ~1.3ns	5= 5mW 10= 10mW 20= 20mW 30= 30mW 100= 100mW 150= 150mW	H=High Power Elite Power Supply M=High Power Laboratory Power Supply	A= <5% E= <3%	S3= INT FIXED 3kHz S4= INT FIXED 4kHz S5= INT FIXED 5kHz C= EXT TRIG U= QCW

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