



QSLN Series

Passively Q-Switched DPSS Lasers

Data Sheet



Overview

The QSLN series is a family of diode pumped solid state (DPSS) passively Q-switched lasers and delivers up to 60mW average power. The QSLN series features a compact design, long operating lifetime, easy operation, and FDA-compliant system with driver. The laser series is commonly used in UV curing, micro-electronics, CD carving, laser medical treatment, scientific experiment, and many other applications.

Features

- Available wavelengths: 257nm, 343nm and 515nm
- Q-switched operating mode
- Average power up to 60mW
- Pulse energy up to 30uJ
- Ultra-compact design
- FDA compliant

Applications

- UV curing
- Micro-electronics
- CD engraving and marking
- Laser medical treatment
- Scientific experiment
- Precision material processing

257-515 nm Specifications

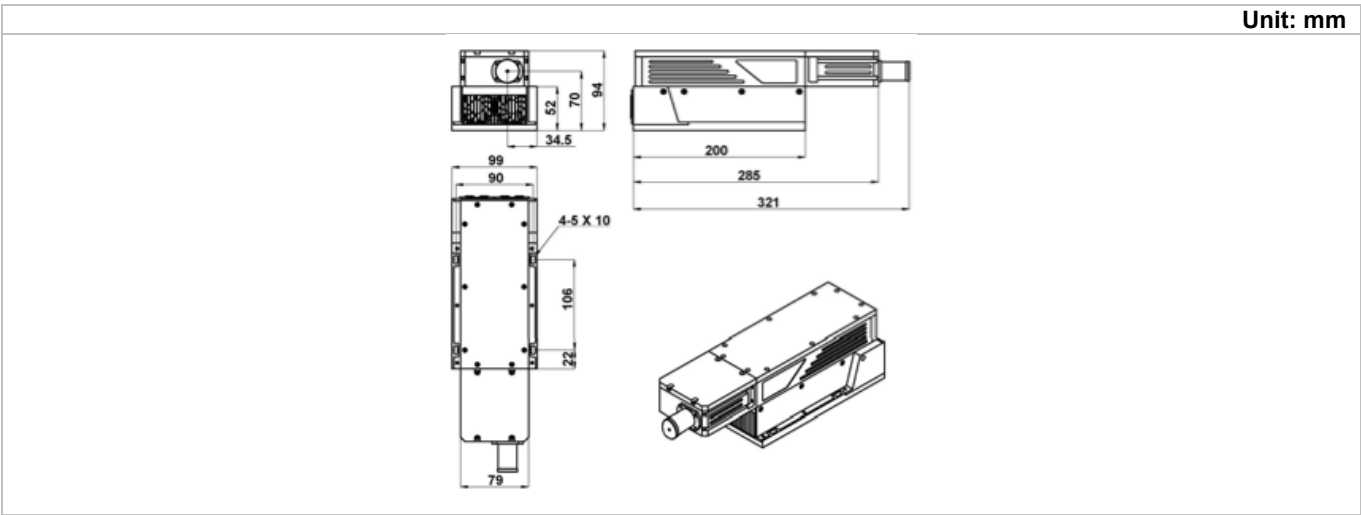
Parameter		QSLN257	QSLN343	QSLN515
Wavelength		257±1 nm	343±1 nm	515±1 nm
Operating mode		Passively		
Max average power ⁽¹⁾		1-15 mW	1-50 mW	1-60 mW
Single pulse energy ⁽²⁾		0.1-4 uJ	0.1-7 uJ	1-30 uJ
Pulse duration		~5 ns	~7 ns	~10 ns
Peak power		0.02-0.8 kW	0.01-1 kW	0.1-3 kW
Repetition rate	QCW ⁽³⁾	2-5 kHz	4-8 kHz	1-2 kHz
Ave power stability (over 4 hours)		<5%, <3%		
Transverse mode		Near TEM ₀₀		
M ² factor		<2.0		
Beam diameter at aperture		~1.0 mm		
Polarization ratio		>50:1, Horizontal		
Warm-up time		<5min		
Operating temperature		10-35°C		
Expected lifetime		>10000 hrs		

Remarks:

1. Average power (mW) = Single pulse energy (uJ) * Repetition rate (kHz).
2. Any energy level can be selected at this range.
3. The repetition rate is a free running value within this range.
4. 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.
5. Average power (mW) = Single pulse energy (uJ) * Rep. rate (kHz)
6. Peak Power (W) = Single Pulse Energy (uJ) / Pulse Duration (us)
7. Specifications are subject to change without notice.

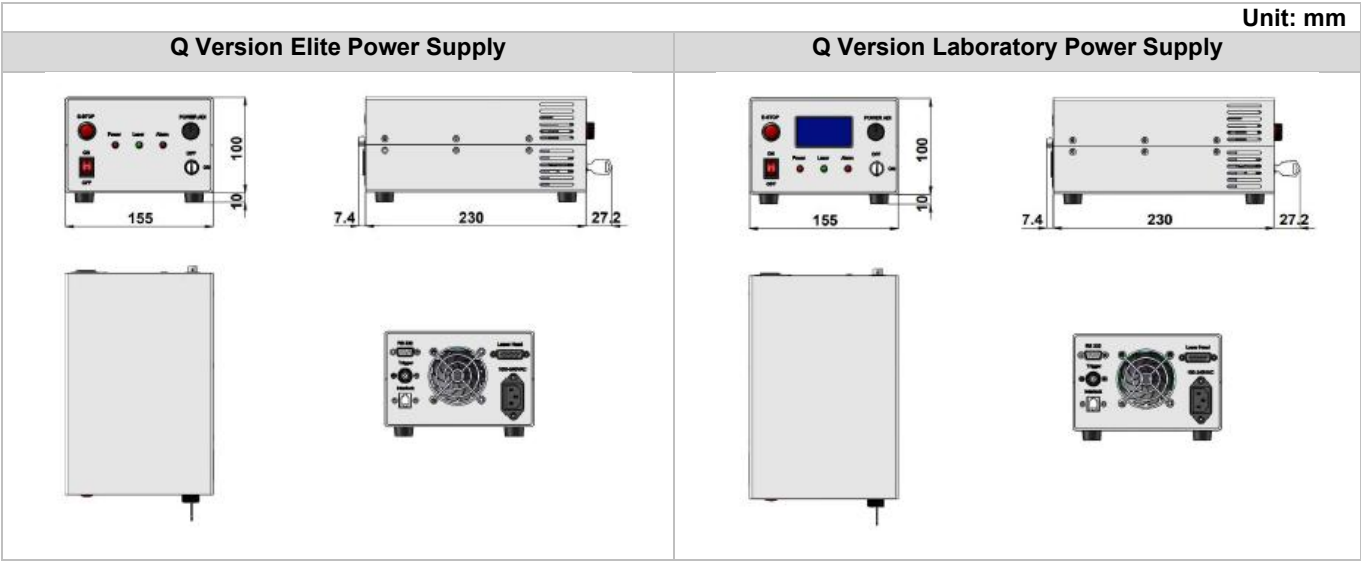


QSLN Series Laser Head Dimensions



Parameter	QSLN Series
Dimensions	321(L)×99(W) ×94(H) mm ³
Weight	3.215 kg
Beam height from base plate	70 mm
Beam exit (from side)	34.5 mm

QSLN Series Power Supply Dimensions



Parameter	Q Version Elite Power Supply	Q Version Laboratory Power Supply
Dimensions	264.6(L) ×155(W) ×110(H) mm ³	264.6(L) ×155(W) ×110(H) mm ³
Weight	2.3 kg	2.6 kg
Input voltage	100-240 VAC	100-240 VAC
Feature	Standard	Adjustable power



Ordering Information

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

Part Number Configuration QSLN[1][2][3][4][5]					
QSLN = Laser Model Series	[1] = Wavelength	[2] = Average Power or Pulse Energy	[3] = Power Supply	[4] = Power Stability	[5] = Repetition Rate
		3= 3mW 5= 5mW 10= 10mW ... 50= 50mW 1J= 1uJ 2J= 2uJ 3J= 3uJ 4J= 4uJ ... 7J=7uJ	Q=Q Version Elite Power Supply QL=Q Version Laboratory Power Supply	A= <5% E= <3%	U= QCW

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

