



QEOL Series

High-Energy Electro-Optic Q-Switched DPSS Pulsed Lasers

Data Sheet



Overview

The QEOL Series High-Energy Electro-Optic Q-Switched DPSS Pulsed Lasers provide high pulse energy, excellent beam quality, and stable nanosecond pulse performance across wavelengths from 501nm to 1100nm. Designed for applications requiring increased pulse energy and reliable operation, the series offers adjustable repetition rates up to 1kHz, making it well suited for demanding scientific, analytical, and industrial systems.

Features

- Available wavelengths: 355nm, 532nm, 1064nm
- High pulse energy output up to 100uJ
- Electro-optic Q-switched operation
- Nanosecond pulse width ~5ns
- Adjustable repetition rates 10Hz-1kHz
- Low timing jitter
- High pulse-to-pulse stability
- Air-cooled operation
- Reliable long-term performance

Applications

- Laser ranging
- LIBS
- Raman spectroscopy
- Pump-probe experiments
- Nonlinear optics
- Scientific research
- Analytical instrumentation
- Precision material processing

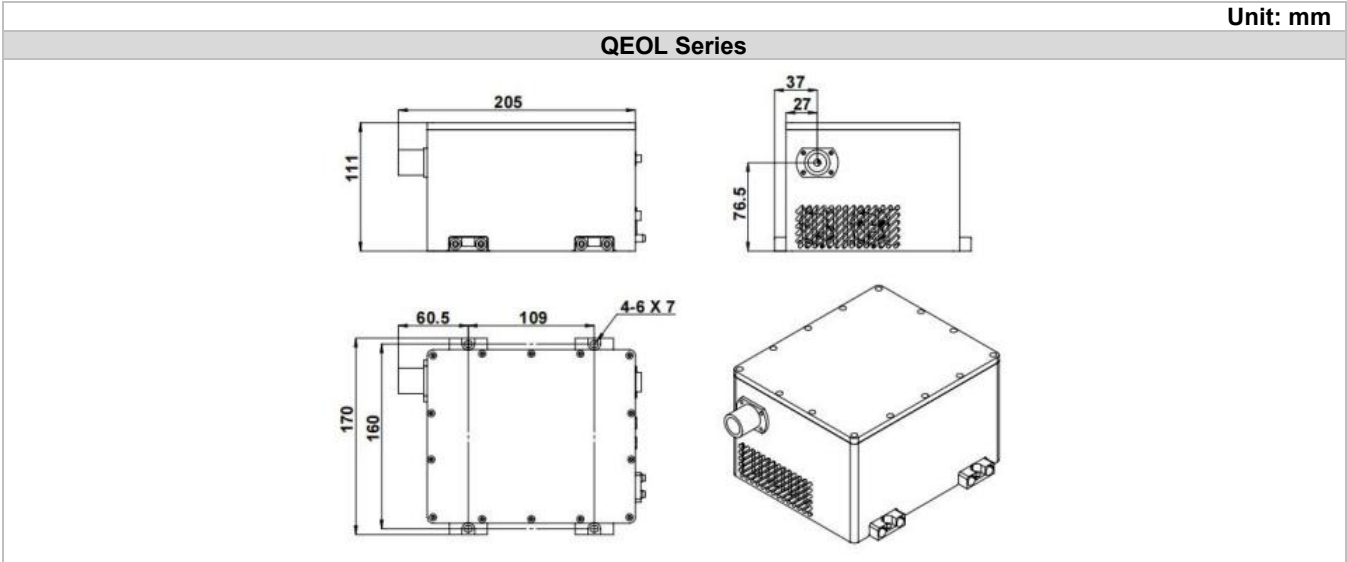
355-1064 nm Specifications

Parameter	QEOL355	QEOL532	QEOL1064
Wavelength	355±1 nm	532±1 nm	1064±1 nm
Operating mode	Q-switched: EO (Electro-optic)		
Average power ⁽¹⁾	1-10 mW	1-50 mW	1-100 mW
Single pulse energy ⁽²⁾	1-10 uJ	1-50 uJ	1-100 uJ
Pulse duration ⁽³⁾	~5 ns		
Peak power	0.2-2 kW	0.2-10 kW	0.2-20 kW
Repetition rate	10 Hz-1 kHz (Adjustable)		
Jitter (sdev)	<0.2 ns (Ext)		
Power stability (rms, 4 hours ±3°C)	<5%, <3%	<3%, <2%, <1%	<3%, <2%, <1%
Beam divergence, full angle	<1.5 mrad		
Beam diameter	~1.5 mm		
M ² factor	<2	<1.5	<1.5
Warm-up time	<10 min		
Operating temperature	10-35°C		
Expected lifetime	>10000 hours		

Remarks:

1. Average power (mW) = Single pulse energy (uJ) * Repetition rate (kHz)
2. Any pulse energy level can be selected within this range.
3. Pulse width is not tunable; the value varies with different frequency and energy.
4. Specifications of the Q-switched pulsed laser are 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. The above specifications are subject to change without notice.

QEOL Series Laser Head Dimensions



Parameter	QEOL Series
Dimensions	205(L) × 170(W) × 111(H) mm ³
Weight	4.2 kg
Beam height from base plate	76.5 mm
Beam exit (from side)	37 mm

QEOL Series Power Supply Dimensions



Parameter	EL Power Supply
Dimensions	283.2(L) × 260(W) × 99(H) mm ³
Weight	3.6 kg
Input voltage	100-240 VAC

Ordering Information

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

Part Number Configuration QEOL[1]-[2]EL[3]				
QEOL = Laser Model Series	[1] = Wavelength	[2] = Single Pulse Energy	EL = Power Supply	[3] = Power Stability
				A= <5% E= <3% 2= <2% D= <1%

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

