



High Energy DPSS Q-Switched Laser

QEOQ Series

Data Sheet



Overview

The QEOQ series is a family of high energy diode-pumped solid-state (DPSS) Q-switched EOM (Electro-Optic Modulation) lasers that can provide single pulse energies up to 40mJ. The laser is constructed with features of high single pulse energy, short pulse duration, and high peak power. The QEOQ 266/355/532/1064nm laser is widely used in LIBS, LIF, PIV, ICP-MS, LCD repair, scientific research, laser processing, military, and many other applications. The QEOQ 1573nm laser is widely used in measurement, remote sensing, visualization, scientific research, and many other applications.

Features

- Available wavelengths: 266nm, 355nm, 532nm, 1064nm, and 1573nm
- Q-switched operating mode
- Single pulse energy 2mJ to 40mJ
- Pulse duration <10ns
- Repetition rate 1-100Hz

Applications

- LIBS
- LIF
- PIV
- ICP-MS
- LCD repair
- Scientific research
- Laser processing
- Military

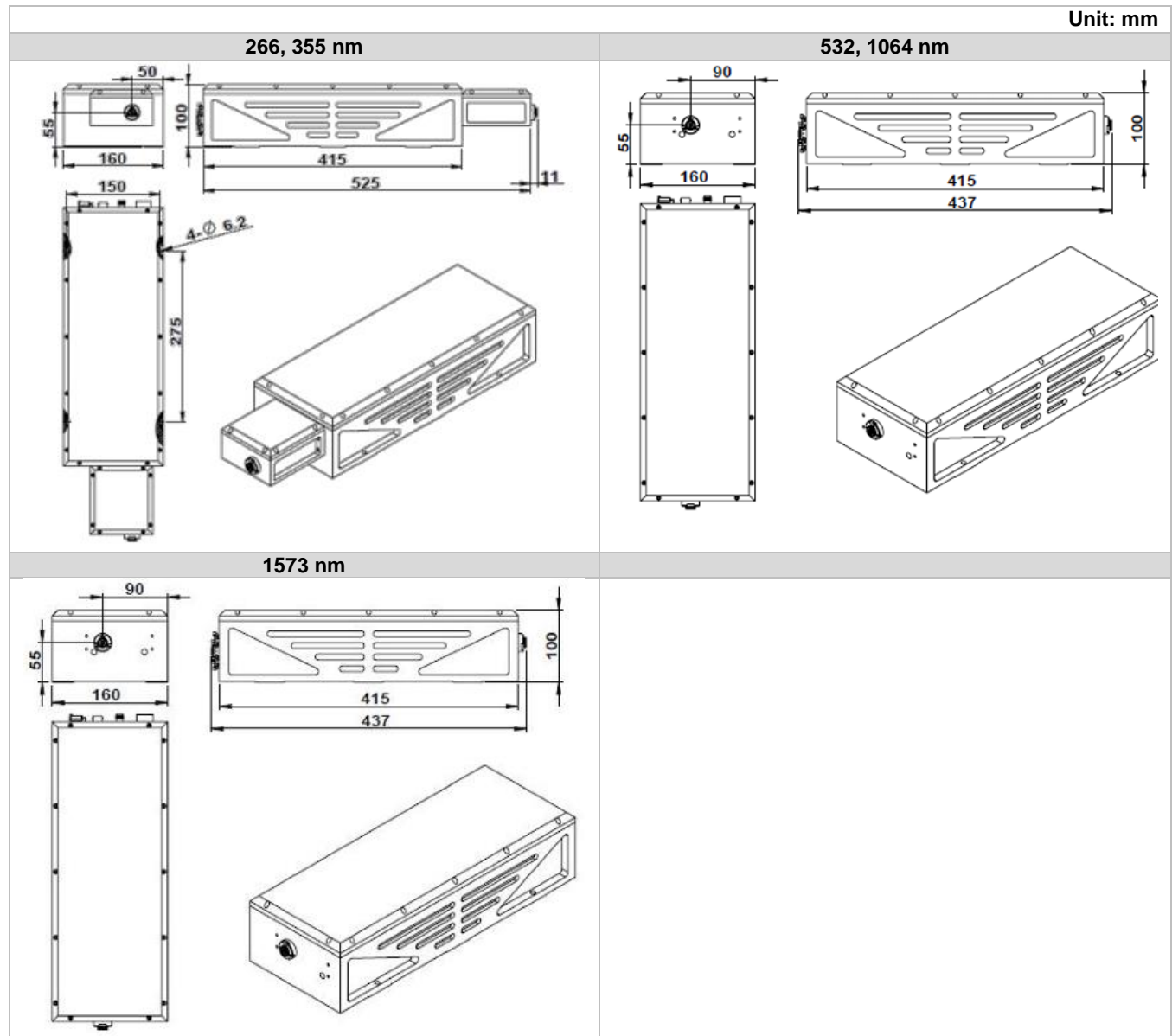
266-1573 nm Specifications

Parameter	QEOQ266		QEOQ355			QEOQ532					QEOQ1064					QEOQ1573		
Wavelength	266±1 nm		355±1 nm			532±1 nm					1064±1 nm					1573±1 nm		
Operating mode	Q-switched: EOM (Electro-optic modulation)																	
Single pulse energy	~2 mJ	~5 mJ	~2 mJ	~5 mJ	~10 mJ	~2 mJ	~5 mJ	~10 mJ	~15 mJ	~20 mJ	~5 mJ	~10 mJ	~20 mJ	~30 mJ	~40 mJ	~10 mJ	~20 mJ	
Pulse duration	<10 ns					<12 ns			<10 ns		<12 ns			<10 ns		<8 ns		
Repetition rate	1-100 Hz (adjustable)					1000 Hz	1-100 Hz (adjustable)				1000 Hz	1-100 Hz (adjustable)					1~50 Hz (adjustable)	
Energy stability	<5%					<5%, <3%					<5%, <3%, <2%					<2%		
Beam divergence, full angle	<3 mrad					~2 mrad					<2 mrad					<8 mrad		
Beam diameter	~2 mm	~2.5 mm	~2 mm	~2.5 mm	~3 mm	~1.5 mm	~2 mm	~2.5 mm	~3 mm	~4 mm	~1.5 mm	~2 mm	~2.5 mm	~3 mm	~4 mm	~3 mm	~4 mm	
Warm-up time	<15min																	
Cooled method	Water Cooled																	
Operating temperature	15~30°C																	
Expected lifetime	10 ⁹ pulses																	
Warranty period	10 months																	

Remarks:

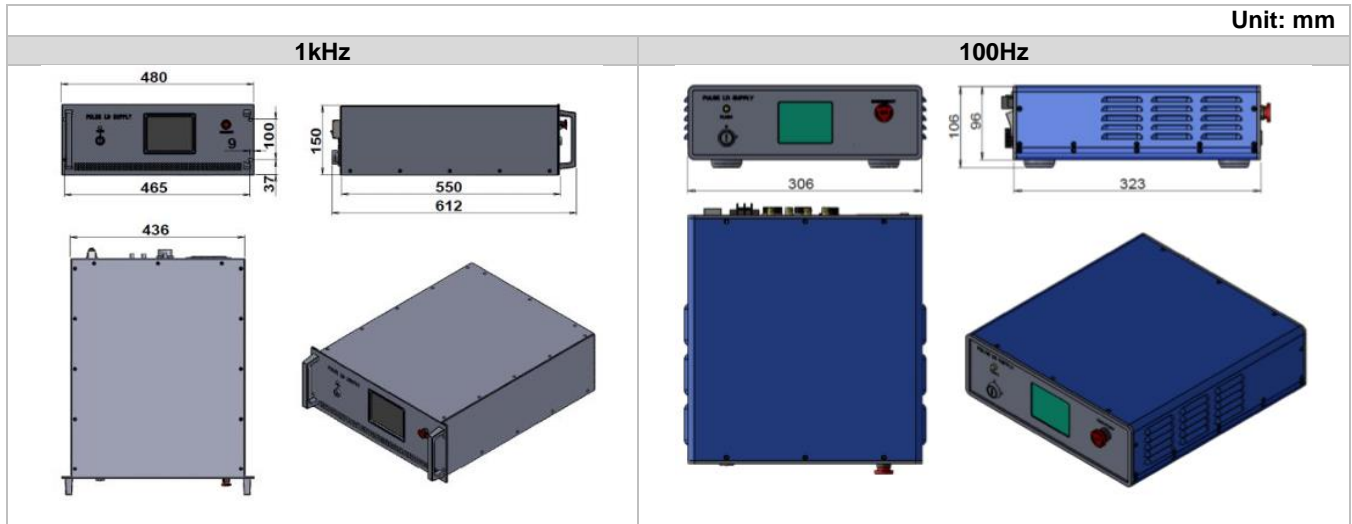
- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
- Specifications are subject to change without notice.

QEOQ Series Laser Head Dimensions



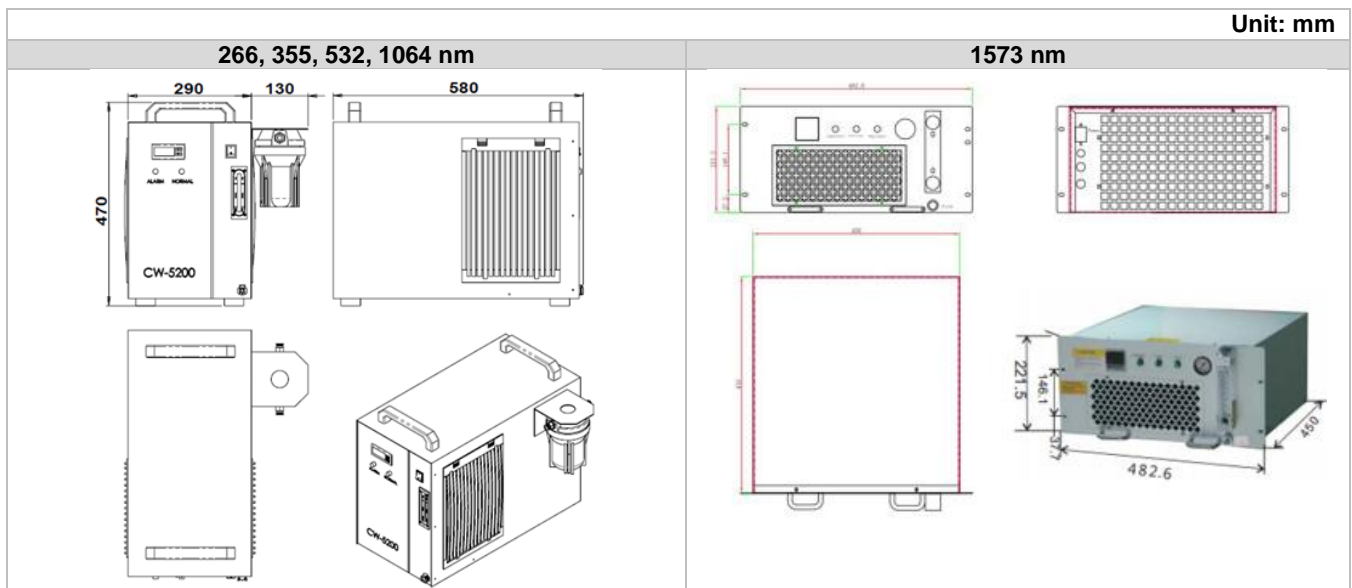
Parameter	266, 355 nm	532, 1064 nm	1573 nm
Dimensions	525(L) x160(W) x100(H) mm ³	415(L) x160(W) x100(H) mm ³	437(L) x160(W) x100(H) mm ³
Weight	8 kg	7.5 kg	7.5 kg
Beam height from base plate	55 mm	55 mm	55 mm
Beam exit (from side)	50 mm	90 mm	90 mm

QEOQ Series Power Supply Dimensions



Parameter	1kHz	100Hz
Dimensions	323(L) × 306(W) × 106(H) mm ³	612(L) × 480(W) × 150(H) mm ³
Weight	6 kg	15 kg
Input voltage	220VAC	220VAC
Feature	Repetition rate and voltage can be adjusted by touch screen.	Repetition rate and voltage can be adjusted by touch screen.

QEOQ Series Chiller Dimensions



Parameter	266, 355, 532, 1064 nm	1573 nm
Dimensions	580(L) × 290(W) × 470(H) mm ³	450(L) × 482(W) × 221(H) mm ³
Weight	24 kg	25 kg

Ordering Information

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

Part Number Configuration QEOQ[1][2]DQ[3][4]					
QEOQ = Laser Model Series	[1] = Wavelength	[2] = Single Pulse Energy	DQ = Power Supply	[3] = Power Stability	[4] = Water Chiller
	266= 266nm 355= 355nm 532= 532nm 1064= 1064nm 1573= 1573nm	2= 2mJ 5= 5mJ 10= 10mJ 15= 15mJ 20= 20mJ 30= 30mJ 40= 40mJ		A= <5% E= <3% 2= <2% D= <1%	C= Yes Blank= No

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