



High Energy Lamp Pumped Solid State Q-Switched Laser LPQL Series

Data Sheet



Overview

The LPQL series is a line of high energy lamp-pumped solid-state Q-switched laser that deliver single pulse energy up to 1000mJ. The laser series features high single pulse energy, short pulse duration, and high peak power. The laser is widely used in LIBS, LIF, PIV, ICP-MS, LCD repair, scientific research, laser processing, military, and many other applications.

Features

- Available wavelengths: 355nm, 532nm, and 1064nm
- Q-switched operating mode
- Pulse energy 100mJ to 1000mJ
- Pulse duration <10ns, <8ns
- Repetition rate 1-10Hz

Applications

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

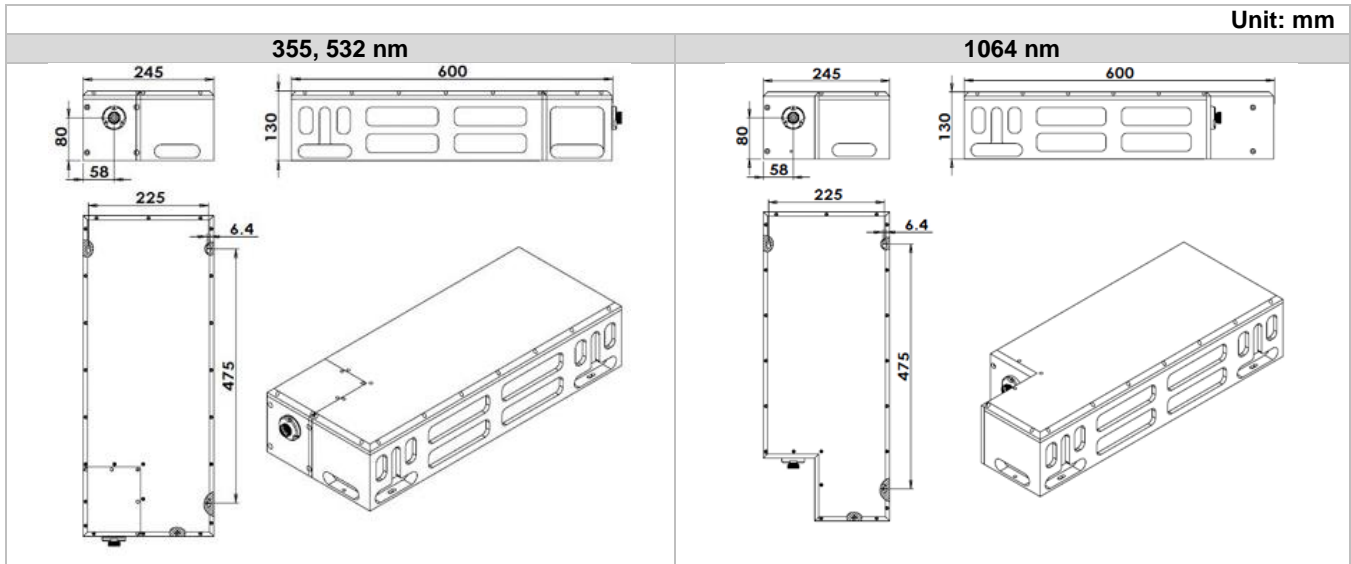
355-1064 nm Specifications

Parameter	LPQL355	LPQL532				LPQL1064			
Wavelength	355±1 nm	532±1 nm				1064±1 nm			
Operating mode	Q-switched: EOM (Electro-optic modulation)								
Single pulse energy	~100 mJ, ~150 mJ, ~200 mJ	~200 mJ	~250 mJ	~350 mJ	~450 mJ	~350 mJ	~500 mJ	~700 mJ	~1000 mJ
Pulse duration	<10 ns	<10 ns	<10 ns	<8 ns	<8 ns	<10 ns	<10 ns	<8 ns	<8 ns
Repetition rate	1~10 Hz (adjustable)								
Energy stability	<5%, <3%	<5%, <3%, <1%				<5%, <3%, <2%, <1%			
Beam divergence, full angle	<3mrad	~1mrad	~1mrad	~1mrad	~3mrad	~1mrad	~1mrad	~1mrad	~3mrad
Beam diameter	~7 mm	7 mm	8 mm	8 mm	9 mm	7 mm	8 mm	8 mm	9 mm
Warm-up time	<15 min								
Cooled method	Water Cooled								
Operating temperature	15-35°C								
Expected lifetime	10 ⁸ pulses	10 ⁷ -10 ⁸ pulses							
Warranty period	10 months								

Remarks:

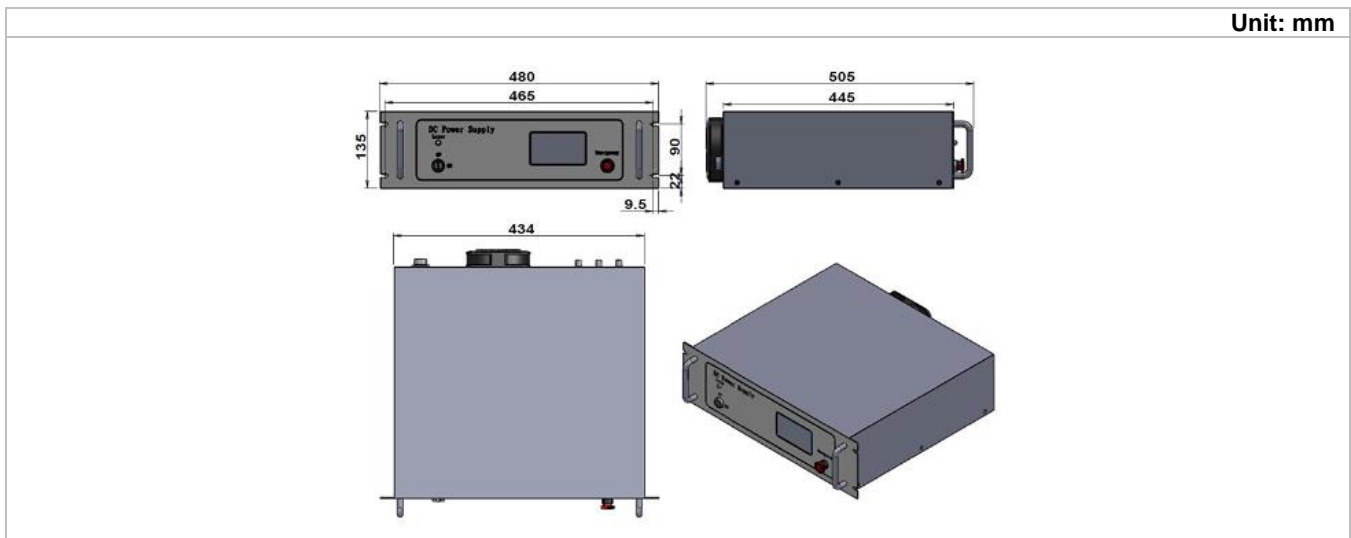
- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
- Specifications are subject to change without notice.

LPQL Series Laser Head Dimensions



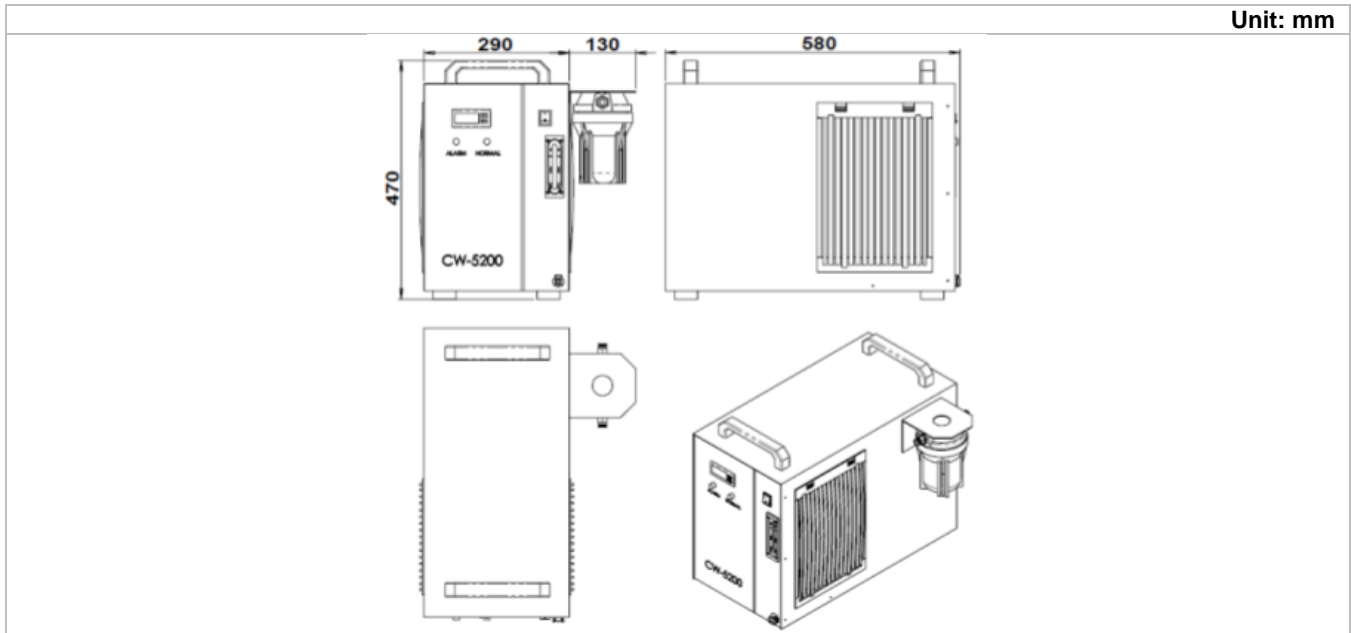
Parameter	LPQL Series
Dimensions	600(L) x 245(W) x 130(H) mm ³
Weight	25 kg
Beam height from base plate	80 mm
Beam exit (from side)	58 mm

LPQL Series Power Supply Dimensions



Parameter	LPQL Power Supply
Dimensions	480(L) x 505(W) x 135(H) mm ³
Weight	16 kg
Input voltage	220/110VAC
Feature	Repetition rate and voltage can be adjusted by touch screen.

LPQL Series Chiller Dimensions



Parameter	Chiller
Dimensions	580(L) x 290(W) x 470(H) mm ³
Weight	24 kg

Ordering Information

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

Part Number Configuration LPQL[1][2]LL[3][4]					
LPQL = Laser Model Series	[1] = Wavelength	[2] = Single Pulse Energy	LL = Power Supply	[3] = Energy Stability	[4] = Water Chiller
	355= 355nm 532= 532nm 1064= 1064nm	100= 100mJ 150= 150mJ 200= 200mJ ... 800= 800mJ 1W= 1000mJ		A= <5% E= <3% 2= <2% D= <1%	Blank = No C = Yes

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