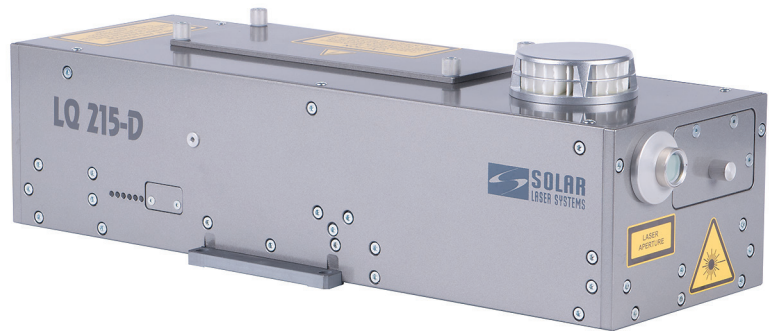


DUAL-PULSE Nd:YAG LASER FOR LIBS AND PIV APPLICATIONS LQ215-D

The LQ 215-D laser is developed specially for LIBS and PIV applications.

High stability of output parameters, low jitter, intelligent triggering and easy operation make the LQ 215-D lasers an excellent choice for most such applications.



The LQ215-D was developed on the platform of our laser for industrial applications. As a result we managed to create an instrument unpretentious to operating conditions, not requiring routine realignments and demonstrating excellent long-term stability. Increased mechanical rigidity, dustproof design, possibility to perform alignments and flashlamp replacement without opening the optical cavity as well as prolonged service intervals are among the advantages of this model.

The peculiarity of the LQ215-D is that laser pulses are generated by two independent cavities the active elements of which are arranged in a common pump chamber with one flashlamp. Both the cavities

are integrated into a single laser head controlled by a single power supply system. So, having selected the LQ215-D, you essentially obtain two lasers at a price of one and additionally save time and money on service maintenance.

The LQ215-D laser is finely fit for integration into OEM systems as it requires little maintenance and can be remotely operated via an integrated RS232 port.

The standard LQ 215-D version offers laser radiation of 1064 nm or 532 nm and pulse repetition rate up to 20 Hz at your choice. The UV version can be optionally supplied.

FEATURES

- Each laser pulse energy up to 160 mJ at 1064 nm
- Dual pulses at 1064 nm and 532 nm
- Pulse repetition rate up to 20 Hz
- Adjustable delay up to 80 μ s
- Homogeneous flat-top beam profile
- Compact and rugged design
- Full RS232 interface
- Turn-key operation

APPLICATIONS

- Particle image velocimetry (PIV)
- Plasma generation and LIBS
- Laser spectroscopy
- Laser induced fluorescence

SPECIFICATIONS *

Model	LQ215-D
Max pulse repetition rate ¹⁾ , Hz	10 ²⁾
Pulse energy ³⁾ , mJ at 1064 nm at 532 nm	2 x 160 2 x 100
Pulse energy stability (StdDev) ⁴⁾ , %	< 1.5
Pulsewidth (FWHM) ⁴⁾ , ns	< 10
Adjustable delay between pulses, μ s	0 ÷ 80
Step of adjustable delay between pulses, μ s	1 ⁵⁾
Beam diameter, mm	5
Divergence ⁴⁾ , mrad	\leq 1.5
Beam pointing stability, mrad	0.1
Jitter (StdDev) ⁶⁾ , ns	< 1
Cooling	Air-water
Electrical service	200...240V, 50/60 Hz, \leq 800W
Dimensions, mm: Laser Head (LxWxH) Power Supply (HxWxD)	534 x 190 x 135 670 x 330 x 620

* Specifications are subject to change without notice.

1) You can choose any PRR from 1 Hz to 10 Hz when placing an order. All the parameters are specified for 10 Hz.

2) 20 Hz upon request.

3) The difference between pulse energies in the dual pulse does not exceed \pm 5%.

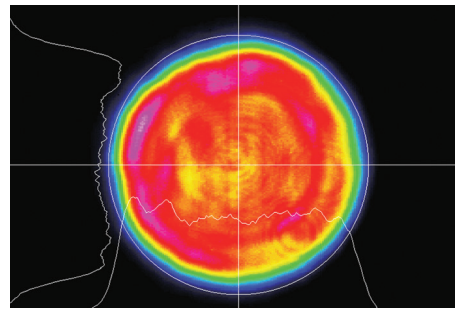
4) Specified at 1064 nm.

5) 0.1 μ s upon request.

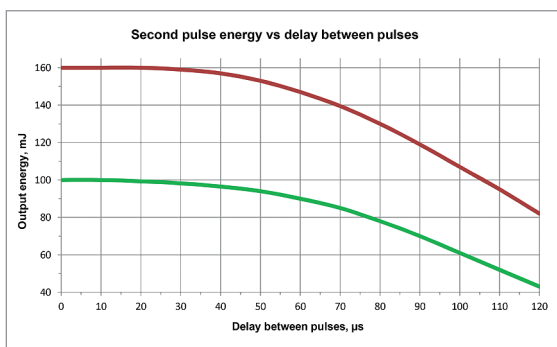
6) With respect to QSW IN pulse.

OPTIONS

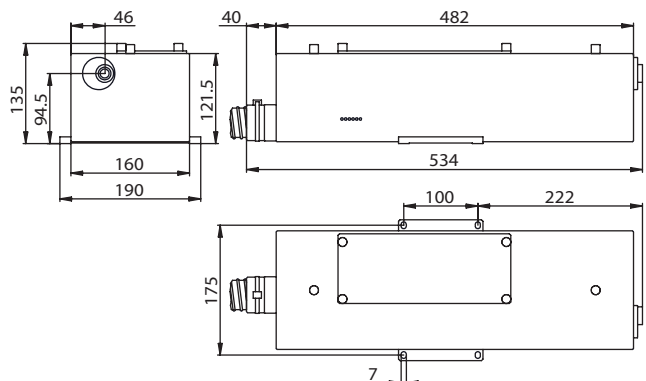
- 355 nm or 266 nm output
- External attenuators



LQ215-D laser typical near field beam profile.



LQ215-D laser output energy of the second pulse at 1064 nm and 532 nm vs delay between pulses.



LQ215-D laser head outline drawing.