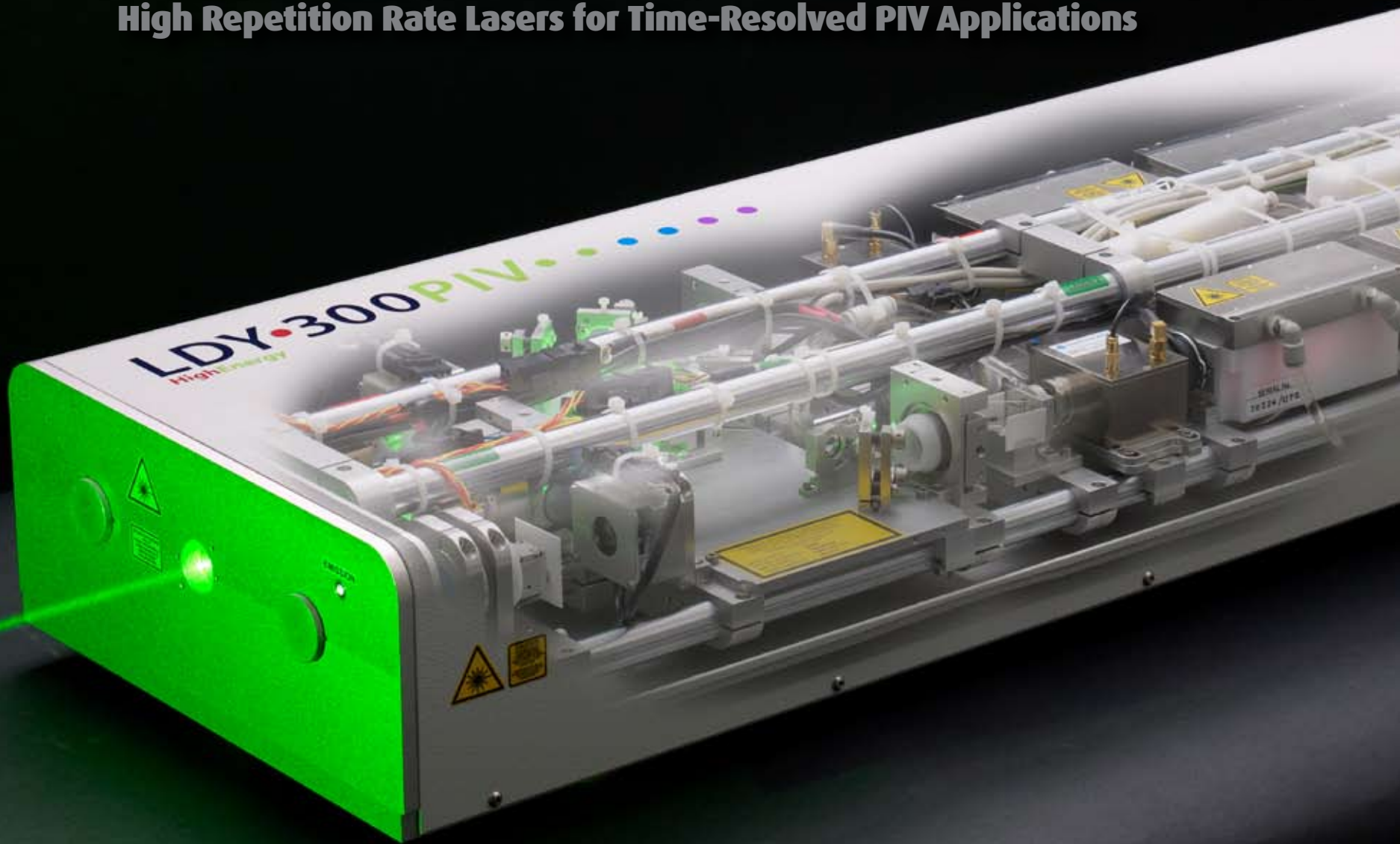


Litron Total Laser Capability
LDY300PIV

LDY300 PIV Series

High Repetition Rate Lasers for Time-Resolved PIV Applications



LDY300PIV
High Energy



LDY300 PIV

High repetition rate lasers for time-resolved PIV applications The LDY300 PIV Series Dual Head Diode Pumped Q-switched Nd:YLF Lasers



FEATURES

- **High Energy at 527nm**
- **Rugged industrial design**
- **Field replaceable pump module**
- **Dual cavity system**
- **0-10kHz continuously variable**

APPLICATIONS

- **PIV**
- **Particle Sizing**
- **Ti:S Pumping**

The LDY300 series are diode pumped, dual cavity, Nd:YLF laser systems ideally suited to imaging applications such as PIV and to pump applications. Output energies of up to 20mJ, 527nm per cavity at 1kHz are available. The lasers are built around a rugged self supporting invar rail that bestows excellent mechanical and optical stability. This, coupled with the proprietary resonator

design, leads to excellent output beams that are spatially and temporally extremely smooth and stable, giving rise to light sheets that offer almost identical shot to shot illumination.

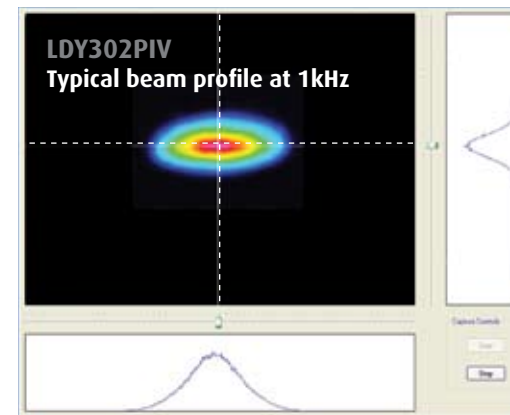
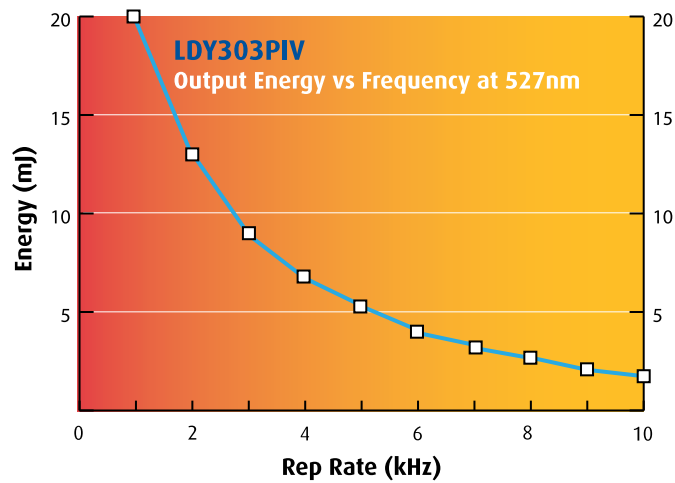
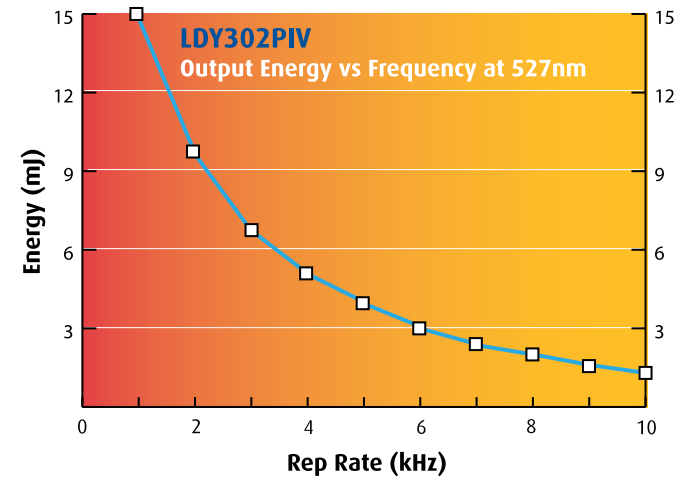
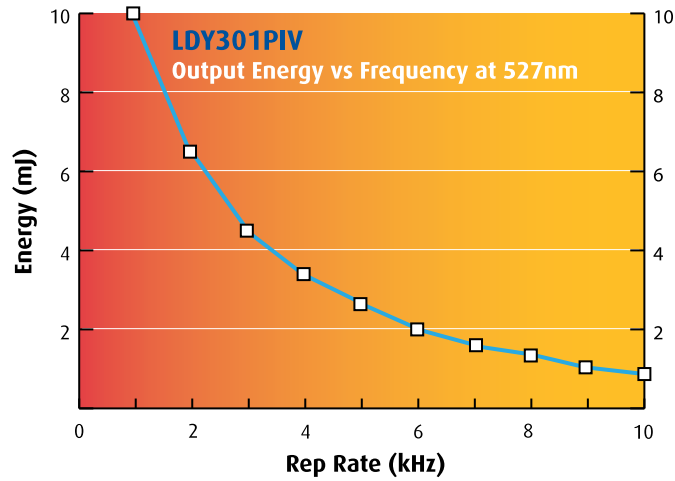
The robust design of these lasers suits them to the harshest of industrial applications and research applications alike.



The power supply and closed-circuit chiller are all housed in a compact 10U or 12U rack. The system can be controlled either by the in-built LCD interface or via RS232 with the supplied software suite or dll, and external triggering of the lasers is accessible via a TTL interface.

The LDY300 PIV Series Dual Head Diode Pumped Q-switched Nd:YLF Lasers

Performance Data



The LDY300 PIV Series Dual Head Diode Pumped Q-switched Nd:YLF Lasers

Technical Data

Model	LDY301	LDY302	LDY303	LDY303HE	LDY304
Repetition rate (each cavity) (kHz)	0.2-20	0.2-20	0.2-20	0.2-20	0.2-20
Output Energy at 1kHz at 527nm per laser head per pulse (mJ)	10	15	20	22.5	30
Pulse - pulse stability ($\pm\%$)	1	1	1	1	1
Beam diameter (mm) ⁽⁴⁾	5	5	5	5	5
Beam divergence (mrad) ⁽⁵⁾	<3	<3	<3	<3	<3
Pulse width @ 1kHz (ns)	~150	~150	~150	~150	~150
M ² _x , M ² _y	12, 7	12, 7	12, 7	12, 7	12, 8
Services					
Voltage ⁽¹⁾ (VAC)	220-250	220-250	220-250	220-250	220-250
Frequency ⁽²⁾ (Hz)	50 or 60	50 or 60	50 or 60	50 or 60	50 or 60
Power	Single Phase	Single Phase	Single Phase	Single Phase	Single Phase
Ambient ⁽³⁾ (°C)	5-40	5-40	5-40	5-40	5-40
Consumption (W)	1000	1800	2700	2700	2700
Power Supply	19" 10U Rack	19" 12U Rack	19" 13U Rack	19" 13U Rack	19" 13U Rack
Weights					
Head (kg)	35	35	35	35	35
PSU (kg)	75	80	80	80	80

(1) 110VAC option requires autotransformer to be specified on order.

(2) 50 or 60Hz to be specified on order.

(3) 0-80% non condensing atmosphere, laser head only.

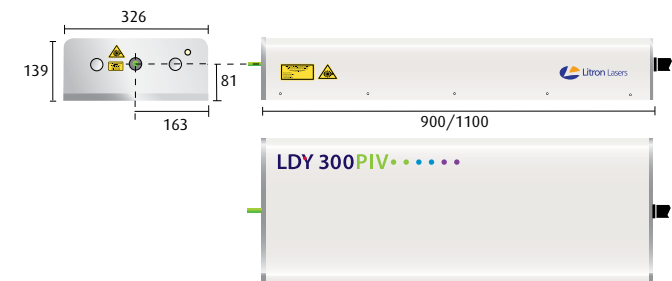
(4) Beam diameter is achieved with output telescope.

Standard diameters quoted. Other diameters are available on request. In all cases M² is unchanged.

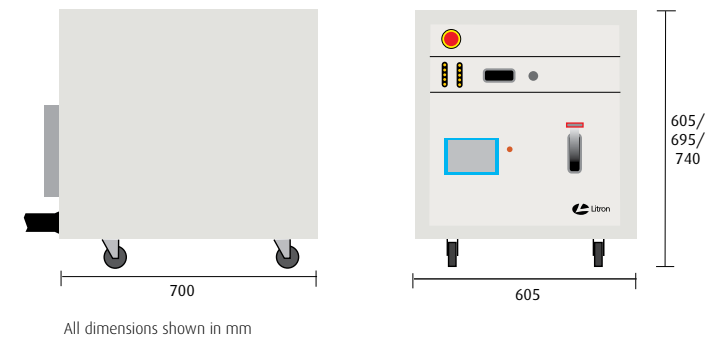
(5) At specified beam diameter.

(6) M² values differ in the x and y directions. Beam rotation optics are available as an option to allow the thinnest light sheets to be formed in any plane.

PIV Laser Head



Rack-mount PSU



Our policy is to improve the design and specification of our products. The details given in this document are not to be regarded as binding.

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