

UV DIODE-PUMPED Nd:YAG LASER

MODEL LDP-100MQU

355 nm Wavelength

An innovative laser optics design, combined with an industrial-grade power supply, results in an extraordinarily reliable and rugged diode-pumped Nd:YAG laser for industrial use. A TOTALLY SOLID-STATE LASER for TROUBLE-FREE MANUFACTURING !

- Efficient diode optical pumping for improved performance and reliability
- Q-switched pulse stability < 5 % rms up to 15 kHz
- Efficient water/water heat exchanger cooling system (self-contained chiller optionally available)
- Uses Intracavity SHG and THG Assemblies with LBO harmonic generator crystals
- "CE Mark" Certified; this is a CDRH Class IV laser product

Wavelength Transverse Mode Beam Diameter, nominal Beam Divergence, nominal Polarization			355 nm Multimod 1.0 mm 2.5 mr Linear	le		
Q-switched performance:						
Frequency (kHz)		5	7.5	10*	20	30
Average Power (W)		8	11	12*	6	5
Pulse Energy (mJ)		1.6	1.5	1.2*	.3	.17
Pulse Width (ns), typical		105	125	160*	270	400
Peak Pulse Power (kW)		15.2	11.7	7.5*	1.1	.42
Mechanical Optical Resonator Length Power Station Dimensions (wat cooler)	ter\water	70 L 77 E	. x 20 W x I x 60 W x	21 H cm 85 D cm		
Electrical Power Recommended Service Average Consumption	2	220 ± 109 2 kW, ma	% VAC, 1- ximum	-phase, 50	/60 Hz, 20	A
Cooling	(City wate > 2.5 bar	r cooled, 8 (35 psi) pr	3 l/m @ 15 ressure.	5° C max. 1	temp.

> 2.5 bar (35 psi) pressure. Self-contained, refrigerated chiller optionally available. 1-kW heat vented into room. Max. ambient operating temperature 30° C.



* Laser is specified at 10 kHz; all other values are typical.

Lee Laser follows a policy of continuous improvement. Specifications are subject to change without notice.





UV DIODE-PUMPED Nd:YAG LASER

MODEL LDP-100TQU

355 nm Wavelength

An innovative laser optics design, combined with an industrial-grade power supply, results in an extraordinarily reliable and rugged diode-pumped Nd:YAG laser for industrial use. A TOTALLY SOLID-STATE LASER for TROUBLE-FREE MANUFACTURING !

- Efficient diode optical pumping for improved performance and reliability
- High power UV output from small diameter, low divergence beam
- Q-switched pulse stability < 5 % rms up to 15 kHz
- Efficient water/water heat exchanger cooling system (self-contained chiller optionally available)
- Uses Intracavity SHG and THG Assemblies with LBO harmonic generator crystals
- "CE Mark" Certified; this is a CDRH Class IV laser product

Wavelength Transverse Mode	355 nm TEMoo				
Beam Diameter, nominal	0.6 mm				
Beam Divergence, nominal	1.0 mr				
Polarization	Linear				
Q-switched performance:					
Frequency (kHz)	5 7.5* 10 20 30				
Average Power (W)	4.5 5.0* 4.5 3.0 1.5				
Pulse Energy (mJ)	0.9 0.7 * 0.48 0.15 0.05				
Pulse Width (ns), typical	80 100* 110 170 200				
Peak Pulse Power (kW)	11.3 6.7* 4.1 0.88 0.25				
Mechanical					
Optical Resonator Length	70 L x 20 W x 21 H cm				
Power Station Dimensions (water\water	$77 \text{ H} \times 60 \text{ W} \times 85 \text{ D} \text{ cm}$				
cooler)	// II x 00 w x 85 D clii				
Electrical Power					
Recommended Service	220 ± 10% VAC, 1-phase, 50/60 Hz, 20A				
Average Consumption	2 kW, maximum				
Cooling	City water cooled, 8 l/m @ 15° C max. temp. > 2.5 bar (35 psi) pressure. Self-contained, refrigerated chiller optionally				
	available. 1-kW heat vented into room. Max. ambient operating temperature 30° C.				



* Laser is specified at 7.5 kHz; all other values are typical.

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Performance Data for the LDP-100MQU & LDP-100TQU 355nm UV Lasers

LDP-100MQU



LDP-100TQU



LeeLaser, February 2010 A. A. Chesworth

