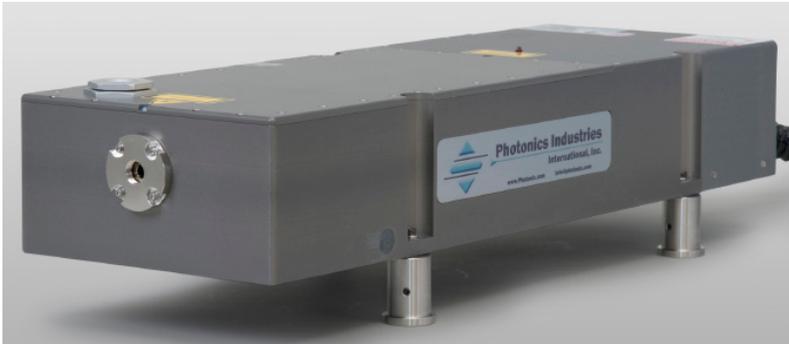


DSH-355 Series

Nd:YVO₄ UV Lasers



Features

- 3 Models: 10W, 18W & 25W* of UV Power
- Patented Intracavity UV Generation
- Compact, Rugged, Monolithic Laser Head
- Total Pulse Control
- TEM₀₀ Beam with Typical M² < 1.2
- Pulse Rates from Single Shot to 300 kHz
- RS232 Computer Control
- Field Replaceable Pump Diodes

As the first company to pioneer intracavity harmonic generation technologies and introduce the very first intracavity UV lasers in 1996, Photronics Industries remains an industry leader in producing efficient, simple, low cost of ownership (COO) lasers. Its DSH Series offer UV power from 10 W to 25 W with the best mode quality in the market.

Owing to key patented technologies that provide non-consumable THG crystals with no indexing required, intracavity harmonic generation is inherently a more efficient harmonic conversion that provides better pulse to pulse stability and mode quality as well as a much simpler, more compact laser configuration. In addition to its patented intracavity UV generation, the end-pumped geometry of Photronics Industries' DSH Series lasers results in even better mode quality and field replaceable pump diodes, for the lowest COO possible.

* For lower power air cooled UV models please see our DCH Series.



Photronics Industries
International, Inc.

1800 Ocean Ave, Ronkonkoma, NY, 11779
E-Mail: info@photonix.com

Phone: 631-218-2240 Fax: 631-218-2275
Website: www.Photonix.com

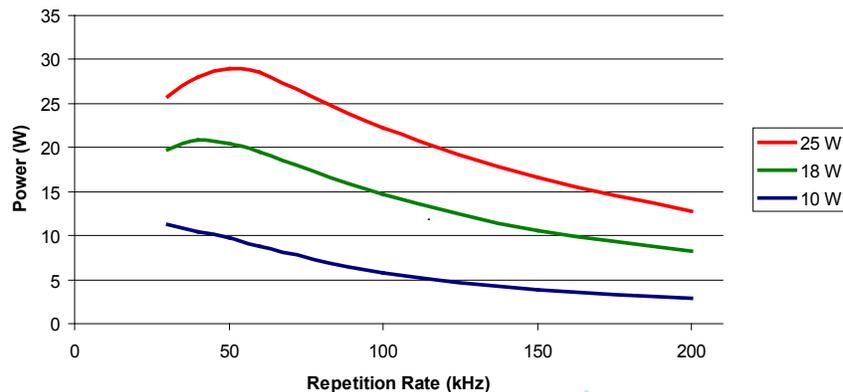
DSH 355 System Specifications¹

Model	DSH-355-10	DSH-355-18	DSH-355-25
Wavelength	355 nm		
Average Power	10 W @ 30 kHz	18 W @ 50 kHz	25 W @ 50 kHz
Pulse Energy	~0.33 mJ @ 30 kHz	~0.36 mJ @ 50 kHz	~0.5 mJ @ 50 kHz
Pulse Width (nominal)	~20 ns @ 30 kHz	~35 ns @ 50 kHz	~25 ns @ 50 kHz
Repetition Rate	Single Shot to 300 kHz		
Pulse to Pulse Instability	<2% rms		
Polarization Ratio	Horizontal; >100:1		
4σ Beam Diameter @ exit (nominal)	~0.6 mm		
Beam Divergence (Full Angle Far Field)	<1.5 mrad		
Beam Circularity @ exit	>85%		
Spatial Mode TEM ₀₀	M ² <1.2		
Beam Pointing Stability	<25 μrad		
Beam Position Accuracy	< 2.5 mm and < 10 mrad from nominal		
Long Term Instability (8 hr ± 2°C)	<± 2%		
Interface	RS 232 / GUI / External TTL Triggering		
Warm Up Time	<10 min from standby <30 min from cold start		
Electrical Requirement	50 to 60 Hz or 100 to 120 V or 200 to 240 V		
Power Consumption (excluding chiller)	< 400 W typical		
Dimensions	Laser Head	7.5 in x 4.1 ² in x 22 in	7.5 in x 4.1 ² in x 24 in
(W x H x L)	Controller	19 in x 3.5 in (2U) x 10.25 in	
Weight	Laser Head	41.5 lbs	43 lbs
	Controller	10 lbs	
Relative Humidity	Non-condensing, 90% Max		
Umbilical Length	3 meter (10 feet)		
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range		
Storage Conditions	-10°C to 40°C; Sea Level to 12,000 m; 0% to 90% RH, non-condensing		

¹ Measurements taken at optimal PRF and power after laser is fully warmed up

² 4.1" includes height of desiccant

Performance Curve



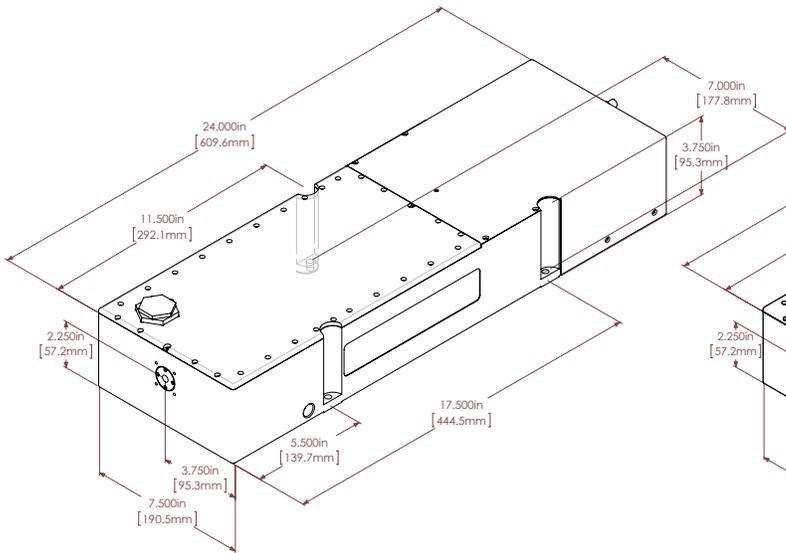
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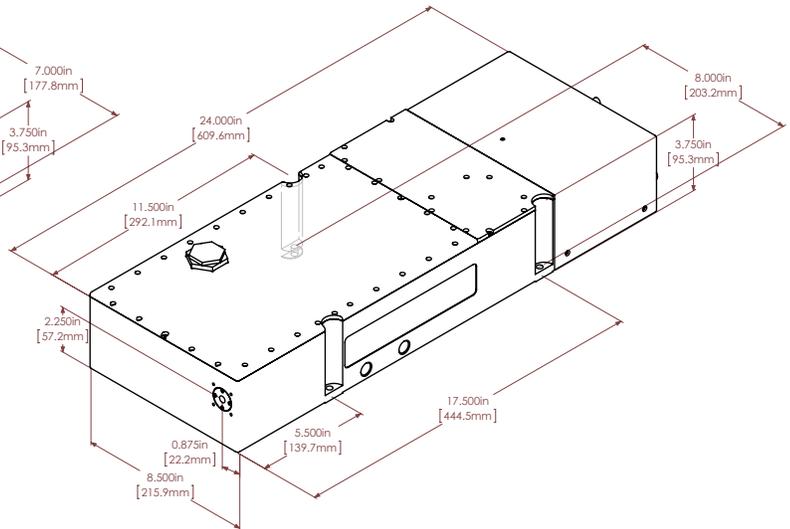
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Dimensional Drawings

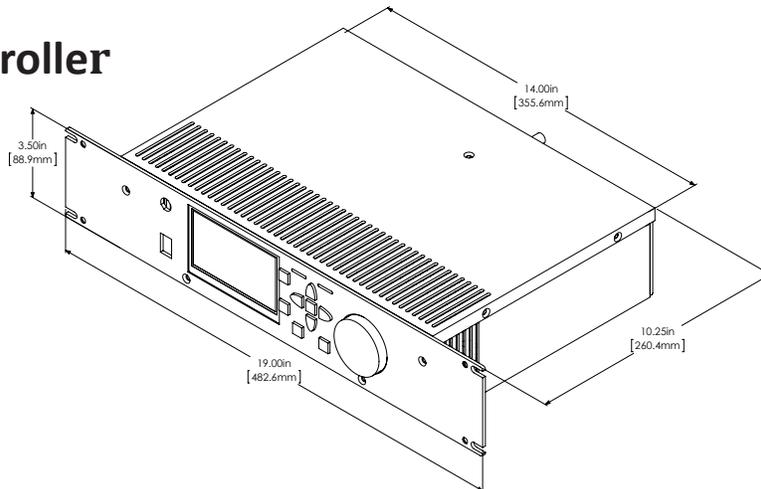
DSH-355-18 Laser Head



DSH-355-25 Laser Head



DSH-355 Controller



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Due to Photonics Industries' commitment to continuous product improvement, specifications and drawings are subject to change without notice.

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Photonics Industries conforms to provisions of US 21 CFR 1040.10 & 1040.11 and is made under one or more US patents listed below:
7,346,092; 7,082,149; 7,079,557; 6,999,483; 6,980,574; 6,961,355; 6,842,293; 6,762,405; 6,690,692; 6,587,487; 6,584,487; 6,366,596;
6,327,281; 6,356,578; 6,246,707; 6,229,839; 6,108,356; 6,061,370; 6,028,620; 5,936,938; 5,898,717 and Pending Patents

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