

DC-351 Series

Nd:YLF UV Lasers



DC-351 Series Features

- 351 nm Wavelength
- Compact, Rugged, Air-Cooled Design
- Patented Intracavity UV Generation
- Pulse Repetition Rates from Single Shot to 10 kHz
- TEM₀₀ Beam with Typical M² < 1.2
- RS232 Computer Control
- External TTL Triggering

As the first company to pioneer intracavity harmonic generation technologies and introduce the very first intracavity UV lasers in 1996, Photonics Industries remains an industry leader in producing efficient, simple, low cost of ownership (COO) lasers. Its DC Series offers high UV pulse energies with the best mode quality in the market.

Owing to key patented technologies, 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 Photonics Industries' DC Series lasers results in even better mode quality and field replaceable pump diodes, for the lowest COO possible.

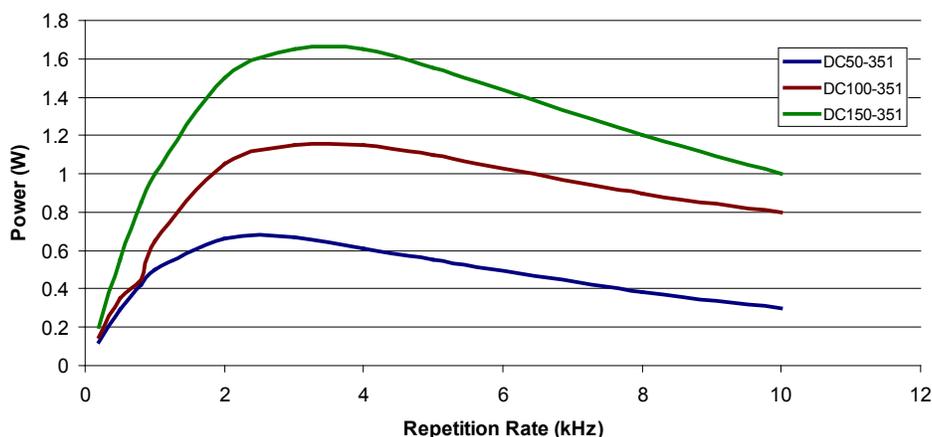
*For higher power UV models please see the DS Series.



DC-351 System Specifications

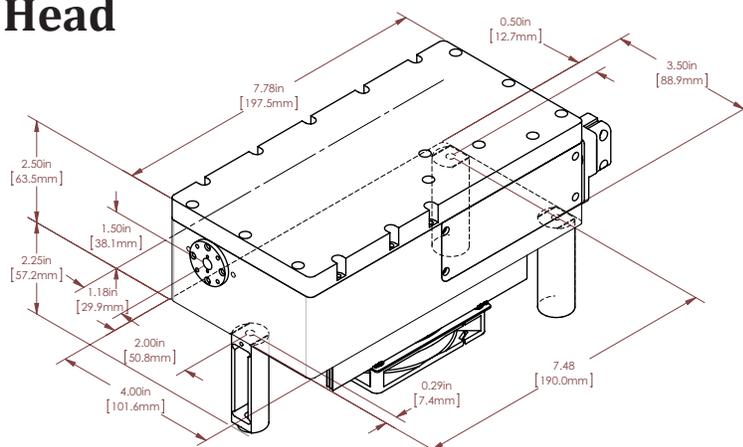
Technology	Air-Cooled		
Model	DC50-351	DC100-351	DC150-351
Wavelength (nm)	351		
Average Power @ 3 kHz	500 mW	1 W	1.5 W
Pulse Energy @ 1 kHz	~0.25 mJ	~0.5 mJ	~1 mJ
Pulse Width @ 1 kHz (nominal)	~25 ns	~25 ns	~20 ns
Repetition Rate	1 Hz 10 kHz		
Pulse to Pulse Instability	<3% rms		
Polarization Ratio	Horizontal; 100:1		
4 σ Beam Diameter @ exit	~ 0.4 mm		
Beam Divergence (Full Angle Far Field)	<2 mrad		
Beam Circularity	~85%		
Spatial Mode	TEM ₀₀ - M ² <1.2	TEM ₀₀ - M ² <1.5	
Beam Pointing Stability	<25 urad		
Beam Position Accuracy	< 2.5 mm and < 1° from nominal		
Long Term Instability (8 hr \pm 1° C)	\pm 2%		
Interface	RS 232 / GUI / External TTL Triggering		
Maximum Heat Load (laser head)	<200 W		
Warm Up Time	<5 min from standby		
	<20 min from cold start		
Electrical Requirement	50 to 60 Hz or 100 V to 240 V		
Dimensions (W x H x L)	Laser Head	4 in x 4.75 in x 8.66 in	
	Controller	11.5 in x 3.5 in x 9.5 in	14.75 in x 3.5 in x 11 in
Weight	Laser Head	6.5 lbs	
	Controller	10 lbs	
Relative Humidity	Non-condensing, 90% Max		
Umbilical Length	3 m		
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range		

Performance Curve

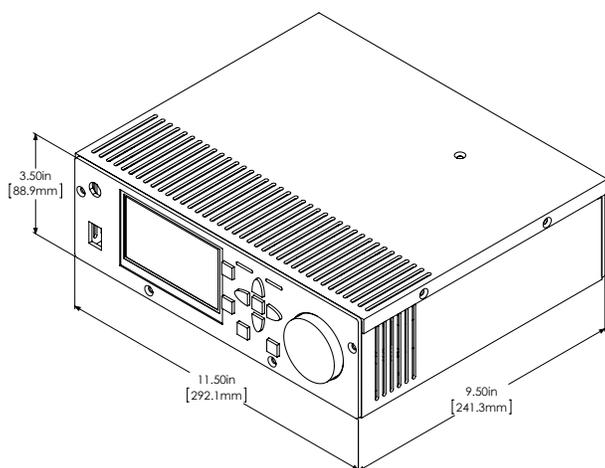


Dimensional Drawings

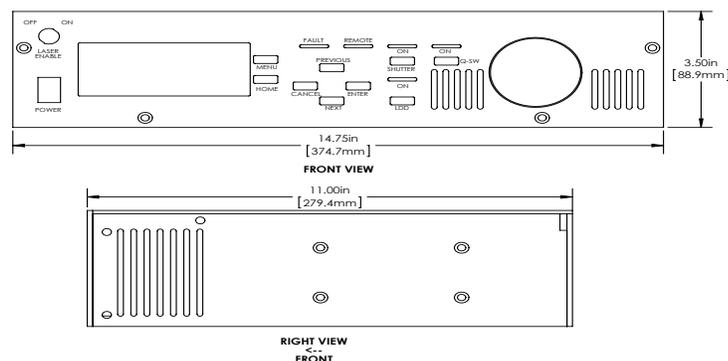
DC-351 Laser Head



DC50, DC100-351 Controller



DC150-351 Controller



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

Photronics 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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