DC UV Series

DC50-351
DC100-351
DC150-351

Features

- 351 nm wavelength
- Compact, rugged, air-cooled design, water cooled option
- Patented intracavity UV generation
- TEM_{00} beam with typical $M^2 < 1.2$
- Pulse rep rates from single shot to 10kHz
- RS232 computer control
- External TTL Triggering
- All-in-one single box design for certain model

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 UV power 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 Green generation, the end-pumped geometry of Photonics Industries' DC UV Series lasers results in even better mode quality and field replaceable pump diodes, for the lowest COO possible.

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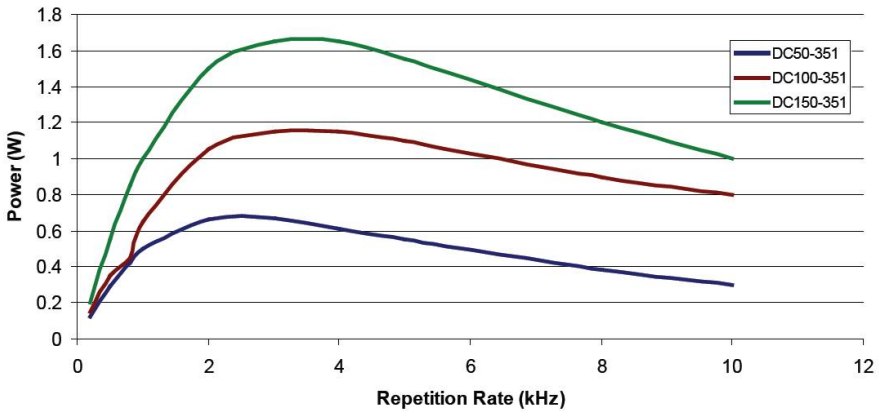
System Specifications

Model		DC50-351	DC100-351	DC150-351
Technology			Air-Cooled	
Wavelength			351 nm	
Average Power @ 3 kHz		500 mW	1 W	1.5 W
Recommended Power Range			50% - 100%	
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			1Hz to 10kHz	
Pulse to Pulse Instability			< 3% rms	
Polarization Ratio			Horizontal; 100:1	
4σ 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 µrad	
Beam Position Accuracy			< 2.5 mm and < 1° from nominal	
Long Term Instability (8 hr ± 1° C)			±2%	
Interface			Ethernet / RS 232 / GUI / External TTL Triggering	
Maximum Heat Load (laser head)			< 200 W	
Warm Up Time			< 5 min from standby or cold start	
Electrical Requirement		15V DC†	100 to 240V AC	
Line Frequency			50 to 60 Hz	
Relative Humidity			Non-condensing, 90% Max	
Dimensions*	Laser Head	4 in x 2.75 in x 8.1 in	4 in x 2.5 in x 7.78 in	
(W x H x L)	Controller	None	12 in x 3.5 in x 8.5 in	
Weight	Laser Head	~6 lbs	~6.5 lbs	
	Controller	None	10 lbs	
Umbilical Length		None	3 m	
Ambient Temperature			15°C to 35°C (59° to 95°F) Operating Range	

*Dimensions given are without heatsinks. Air cooled or water cooled heatsink options are available (see dimensional drawings)

† 100 to 240V AC adapter supplied

Performance Curves



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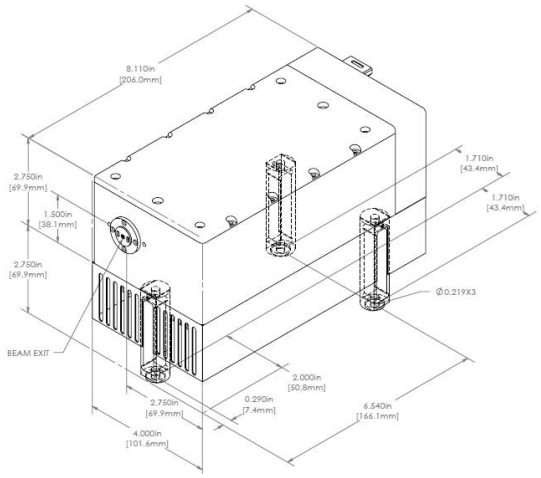
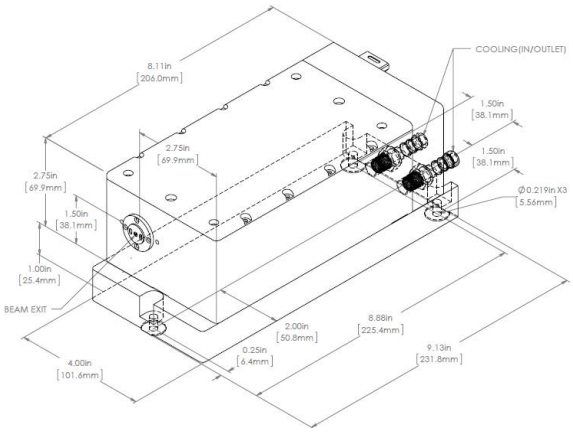
Dimensional Drawings

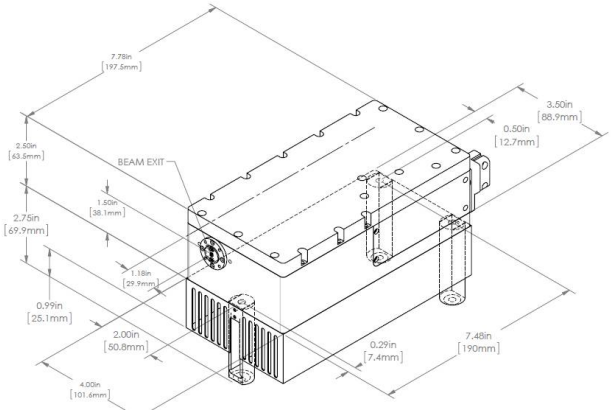
DC50-351 AIO Laser with air cooled heatsink



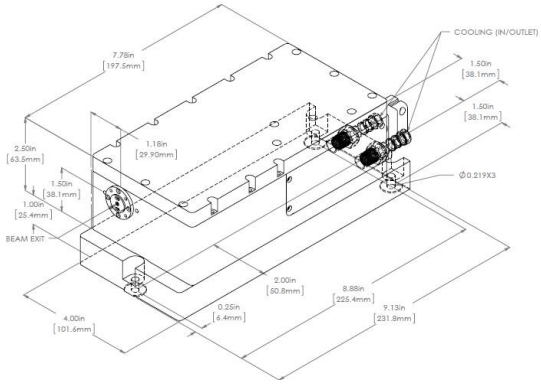
DC50-351 AIO Laser with water cooled heatsink



DC100, 150-351 AIO Laser with air cooled heatsink



DC100, 150-351 AIO Laser with water cooled heatsink



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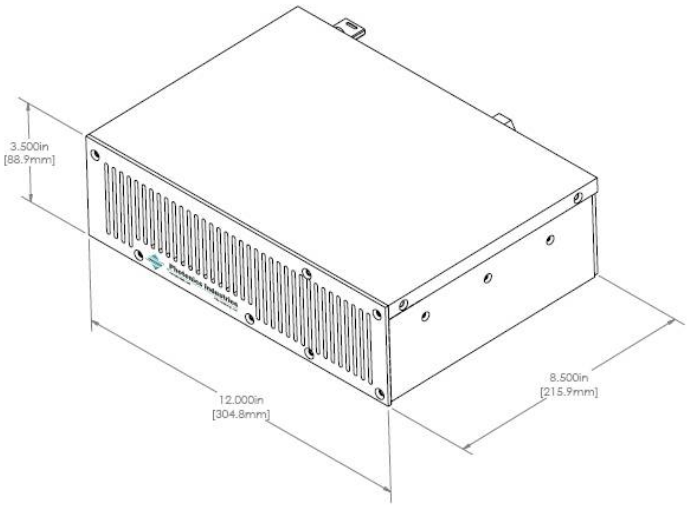
DC100, 150-351 Controller



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

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