

Millennia[®] eV[™]

HIGHEST POWER CW 532 nm DPSS LASERS

The Millennia[®] eV[™] from Spectra-Physics is the next generation Millennia, extending the highly successful product family of CW DPSS green lasers to unprecedented power levels and versatility. Millennia eV models are now available with 5 W, 10 W, 15 W, 20 W, and 25 W of CW power at 532 nm. All Millennia eV feature ultra-low optical noise, TEM₀₀ beam quality and best-in-class power stability.

The Millennia platform is based on Spectra-Physics' *It's in the Box[™]* design, where the laser optical cavity, diode and control electronics are all integrated in a single, compact package, eliminating the need for an external power supply.

Millennia eV benefits from Spectra-Physics' extensive experience in the design of rugged industrial lasers. Millennia eV lasers utilize long life, highly reliable laser diodes. The result is a highly reliable laser, ensuring dependable, easy turnkey operation with exceptional value.

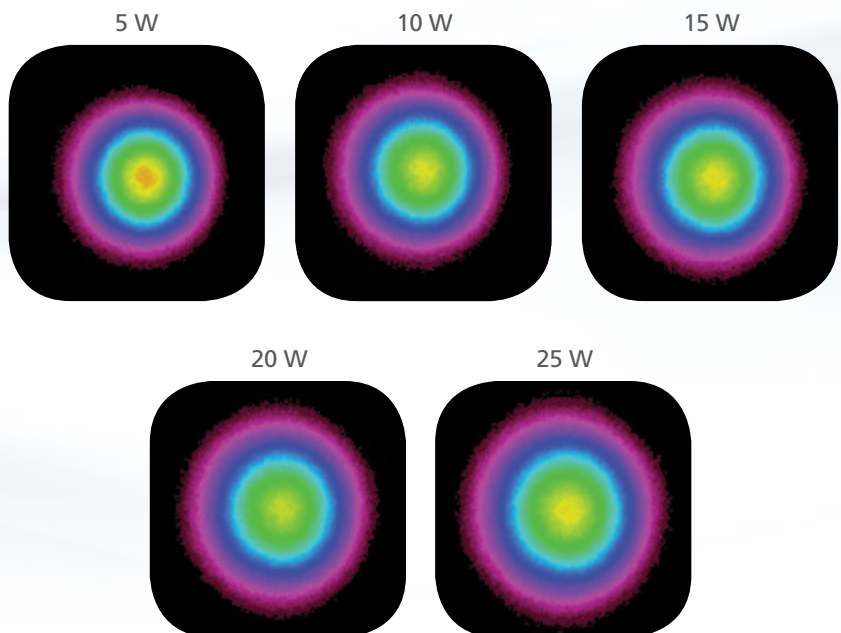
With its industry leading scalability from 5 W to 25 W average power and high reliability, Millennia eV is the next generation laser of choice for demanding scientific applications such as the pumping of high power ultrafast and CW Ti:Sapphire lasers and high power, high throughput industrial applications.

The Millennia eV Advantage

- Industry leading power scalability from 5 W to 25 W
- Exceptional value and low cost of ownership
- Integrated laser head and power supply
- Best-in-class power stability and beam quality
- Low optical noise
- High reliability for turn-key operation



Power Scalability and Exceptional Beam Quality



Applications

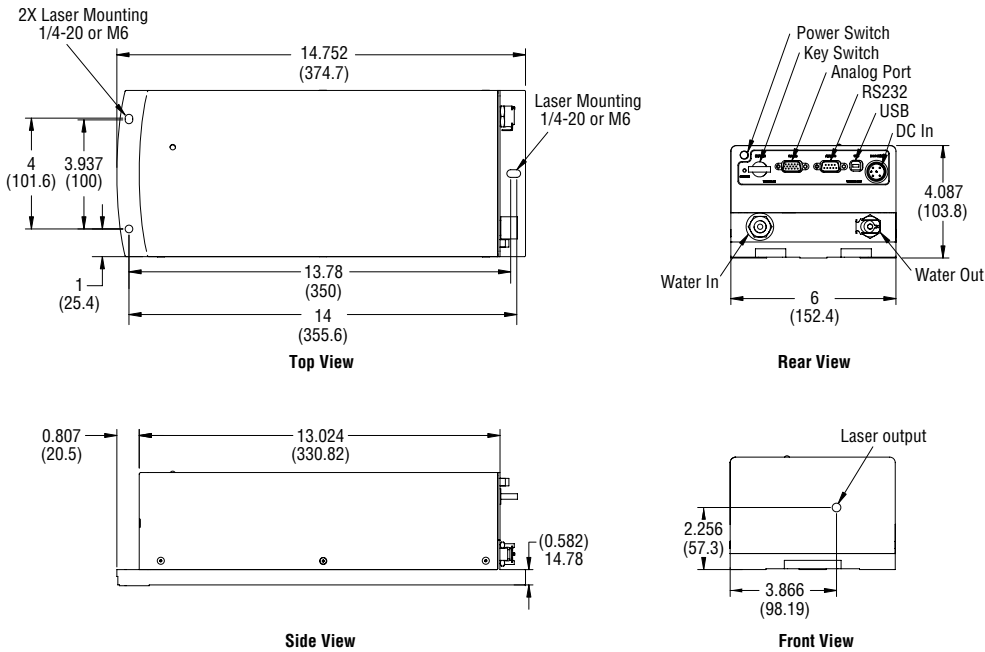
Scientific Applications

- Pumping CW and mode-locked Ti:Sapphire lasers
- Pumping solid state and dye lasers
- Spectroscopy

Industrial Applications

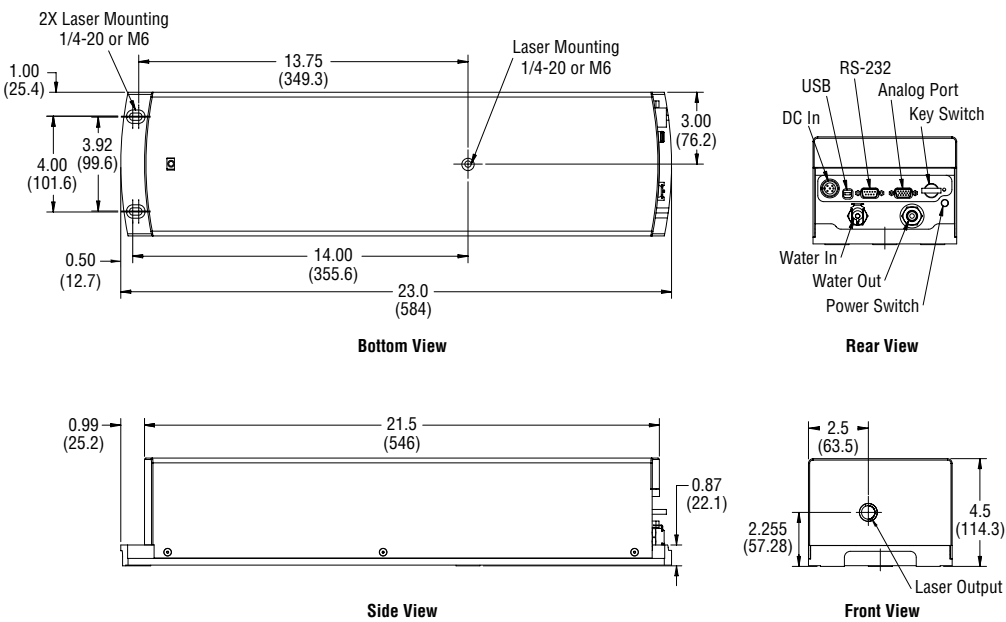
- Laser doping of solar cells
- Materials processing

Millennia eV (5–15 W) Dimensions



Dimensions in inch (mm)

Millennia eV (20–25 W) Dimensions



Dimensions in inch (mm)

Specifications⁸

Output Characteristics ^{1,2}		
Output Power	5 W, 10 W, 15 W	20 W, 25 W
Wavelength	532 nm	
Spatial Mode ³	TEM ₀₀	
Beam Quality (M ²)	<1.1	
Beam Diameter (1/e ²)	2.3 mm ±10%	
Beam Divergence	<0.5 mrad	
Polarization ⁴	>100:1 vertical	
Power Stability ⁵	±1%	
Beam Pointing Stability ⁶	2 μrad/°C	
Noise ⁷	<0.04% rms	
Power Requirements		
Operating Voltage	100–240 VAC, 50/60 Hz	
Power Consumption	<250 W (max)	<350 W (max)
Environmental Specifications		
Operating Temperature	64–95°F (18–35°C)	
Relative Humidity	8–85%, non-condensing	
Cooling Requirements	Closed-loop chiller	
Physical Characteristics		
Dimensions (L × W × H)	14.75 x 6.00 x 4.08 in (374.7 x 152.4 x 103.8 mm)	23.0 x 6.0 x 4.5 in (584.2 x 152.4 x 114.3 mm)
Weight	<15 lbs (<7 kg)	<26 lbs (<12 kg)

- All performance characteristics guaranteed at specified output power
- Due to our continuous product improvement program, specifications are subject to change without notice
- Beam ellipticity <10%
- Vertical polarization standard; horizontal polarization option available
- Measured over 2-hour period, after a 30 minute warm-up
- Measured at farfield x and y position, after a 30 minute warm-up
- Measured over a 10 Hz to 0.1 GHz bandwidth at the specified output power
- 8. The Millennia eV is a Class IV – High-Power Laser, whose beam is, by definition, a safety and fire hazard. Take precautions to prevent exposure to direct and reflected beams. Diffuse as well as specular reflections can cause severe skin or eye damage.**