Millennia® eV™

Highest Power CW 532 nm DPSS Lasers



The Millennia eV from Spectra-Physics is the highly successful product family of CW DPSS green lasers providing 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^{TM} 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 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 5 W to 25 W
- Best-in-class power stability and beam quality
- Exceptional value and low cost of ownership
- Integrated laser head and power supply
- High reliability for turn-key operation
- Low optical noise

Scientific Applications

- CW and mode-locked Ti:Sapphire laser pumping
- Solid state and dye laser pumping
- Spectroscopy

Industrial Applications

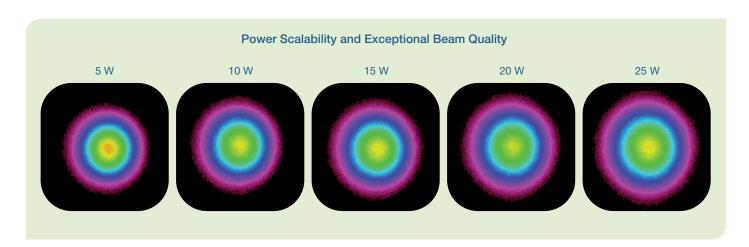
- Laser doping of solar cells
- Materials processing

Millennia eV Specifications⁸

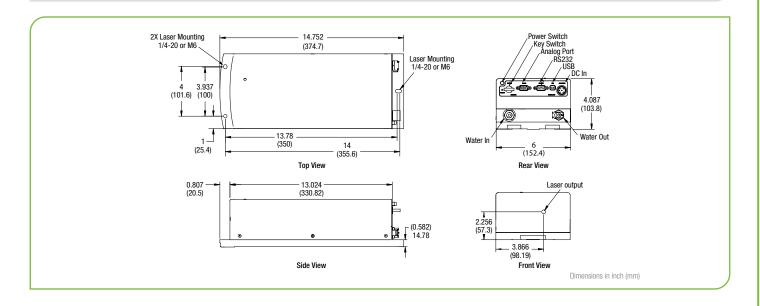
Output Characteristics ^{1, 2}					
Output Power	5 W, 10 W, 15 W	20 W, 25 W			
Wavelength	532 nm				
Spatial Mode ³	TEM _{oo}				
Beam Quality (M²)	<1.1				
Beam Diameter (1/e²)	2.3 mm ±10%				
Beam Divergence	<0.5 mrad				
Polarization ⁴	>100:1 vertical				
Power Stability⁵	±1%				
Beam Pointing Stability 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 \times W \times 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.
- 3. Beam ellipticity <10%.
- 4. Vertical polarization standard; horizontal polarization option available.
- 5. Measured over 2-hour period, after a 30 minute warm-up.

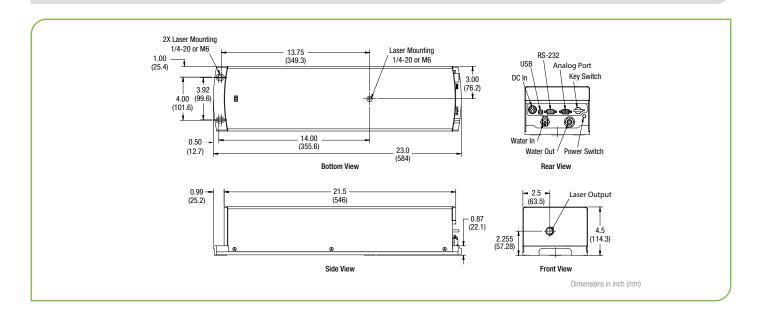
- Measured over 2-flour period, after a 30 millittle warm-up.
 Measured at farfield x and y position, after a 30 minute warm-up.
 Measured over a 10 Hz to 0.1 GHz bandwidth at the specified output power.
 The Millennia eV is a Class IV High-Power Laser, whose beam is, by definition, a safety and fire hazard. Take precautions to prevent exposure to direct and reflected beams. Diffuse as well as specular reflections can cause severe skin or eye damage.



Millennia eV (5-15 W) Dimensions



Millennia eV (20-25 W) Dimensions





www.spectra-physics.com

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