

VBP Single-mode CW Fiber Laser

Everfoton's VBP Single-mode Fiber Laser can offer a total output power of up to 9kW. It utilizes the self-developed ring beam fiber and combiner to provide core and ring output modes. The power is independently adjustable with a power ramp up and down function, ensuring no spattering during welding and significantly enhancing processing quality and efficiency.



Applications

- Power battery pack
- Intelligent automobile manufacturing
- 3C electronics



Characteristics

- Single-mode core beam
- Independently adjustable fiber core/ring core power
- Multiple protection against high reflection
- Waveform editing, Power ramp up and down
- Integrated remote monitoring

SPECIFICATIONS

Optical Characteristics

Model	FFSC-1500SM/1500-VBP	FFSC-2000SM/2000-VBP
Operating Mode	CW / Modulated	
Output Power (W)	3000	4000
Core Output Power (W)	1500	2000
Ring Output Power (W)	1500	2000
Power Range (%)	10 - 100	
Core Beam Quality (M ²)	1.2	
Ring Beam Quality (mm x mrad)	< 4	
Output Power Instability at 25°C (%)	< ±1.5 (2 Hours)	
Central Wavelength (nm)	1080 ± 5	
Spectrum Width FWHM (nm)	< 6	
Modulation Frequency (kHz)	5	
Red Laser Power (µW)	> 200	

Output Cable Parameters

Output Mode	QBH
Cable Length (m)	7
Central Core Diameter (µm)	14
Ring Core Diameter (µm)	100
Bending Radius of Cable (mm)	200

Electrical Characteristics

Operating Voltage (VAC)	340 - 420V, 3P4W 50 / 60Hz	
Rated Power Consumption (kW)	9	12
Control Mode	AD, Ethernet	

Other Parameters

Operating Temperature (°C)	10 - 40	
Relative Humidity (%)	10 - 80	
Cooling Method	Water Cooled	
Water-cooling Temperature (°C)	25 ± 1	
Water-cooling Flow (L/min)	> 50 (Laser), 1.5 - 2.5 (QBH)	
Water-cooling Pressure (Bar)	3 - 5	
Joint Diameter (mm)	25	
Minimum Cooling Capacity (kW)	6	8
Dimensions W*D*H (mm)	600 x 750 x 650 (excluding lights and casters)	
Weight (kg)	180 ± 10	