VBP CW Fiber Laser

Everfoton's VBP Fiber Laser can offer a total output power of up to 12kW. 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.

Applications

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

Characteristics

- 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-4000/2000-VBP	FFSC-6000/3000-VBP	FFSC-6000/6000-VBP
Operating Mode	CW / Modulated		
Output Power (W)	6000	9000	12000
Core Output Power (W)	4000	6000	
Ring Output Power (W)	2000	3000	6000
Power Range (%)	10 - 100		
Ring Beam Quality (mm x mrad)	Central < 2.5, Ring < 7.5		Central < 4, Ring < 30
Output Power Instability at 25°C (%)	< ±1.5 (2 Hours)		
Central Wavelength (nm)	1080 ± 5		
Spectrum Width FWHM (nm)	5 - 8		
Modulation Frequency (kHz)	5		
Red Laser Power (μW)	> 200		

Output Cable Parameters

Output Mode	QBH	QD	
Cable Length (m)	15		
Central Core Diameter (μm)	50		100
Ring Core Diameter (μm)	150		600
Bending Radius of Cable (mm)	200		

Electrical Characteristics

Operating Voltage (VAC)	340 - 420V, 3P4W 50 / 60Hz		
Rated Power Consumption (kW)	18	27	36
Control Mode	AD, Ethernet		

Other Parameters

Operating Temperature (°C)	10 - 40		
Relative Humidity (%)	10 - 80		
Cooling Method	Air Cooled		
Water-cooling Temperature (°C)	25 ± 1		
Water-cooling Flow (L/min)	> 70 (Laser), 1.5 - 2.5 (QBH)	> 100 (Laser), 1.5 - 2.5 (QD)	> 100 (Laser), 2 - 4 (QD)
Water-cooling Pressure (Bar)	3 - 5		
Joint Diameter (mm)	25		32
Minimum Cooling Capacity (kW)	12	18	25
Dimensions W*D*H (mm)	735 x 750 x 650 (excluding lights and casters)		600 x 750 x 1100 (excluding lights and casters)
Weight (kg)	230 ± 10	250 ± 10	350 ± 10