

CW Fiber Laser for Cladding

Everfoton's CW Fiber Laser for Cladding has the characteristics of high electro-optical efficiency, multiple protection against high reflection, compact structure and convenient system integration. It can provide output with a maximum core diameter of 1000 μ m, featuring a flat-top beam energy distribution. During the cladding process, it ensures higher powder utilization and an excellent molding effect.



Applications

- Cladding
- Quenching
- Surface heat treatment



Characteristics

- Uniform distribution of spot energy
- Multiple protection against high reflection
- Excellent molding effect
- Integrated remote monitoring

SPECIFICATIONS

Optical Characteristics

Model	FFRC-3000F-C	FFSC-6000F	FFSC-9000F	FFSC-12000F
Output Power (W)	3000	6000	9000	12000
Operating Mode	CW / Modulated			
Polarization	Random			
Power Range (%)	10 - 100			
Beam Quality BPP (mm x mrad)	27	30		40
NA (Typical)	0.1			
Output Power Instability at 25°C (%)	< ±1.5 (2 Hours)			
Central Wavelength (nm)	1080 ± 5			
Spectrum Width FWHM (nm)	< 6	5 - 8		
Modulation Frequency (kHz)	5			
Red Laser Power (µW)	> 200			

Output Cable Parameters

Output Mode	QBH	QBH / LOE	LOE
Output Fiber Core Diameter (µm)	600		800
Cable Length (m)	20		
Bending Radius of Cable (mm)	200		

Electrical Characteristics

Operating Voltage (VAC)	340 - 420V, 3P5W 50 / 60Hz			
Rated Power Consumption (kW)	9	18	27	36
Control Mode	RS232, 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)	> 30 (Laser), 1.5 - 2.5 (QBH)	> 70 (Laser), 1.5 - 2.5 (QBH)	> 100 (Laser), 1.5 - 2.5 (LOE)	> 100 (Laser), 2 - 4 (LOE)
Water-cooling Pressure (Bar)	3 - 5	5 - 6	3 - 5	5 - 6
Joint Diameter (mm)	16	25	25	32
Dimensions (W*D*H) (mm)	482 x 575 x 133 (including handle)	600 x 750 x 650 (excluding lights and casters)	735 x 750 x 650 (excluding lights and casters)	600 x 750 x 1100 (excluding lights and casters)
Weight (kg)	50 ± 3	190 ± 10	250 ± 10	350 ± 10