



CF1000 - High Power Industrial Fiber Lasers

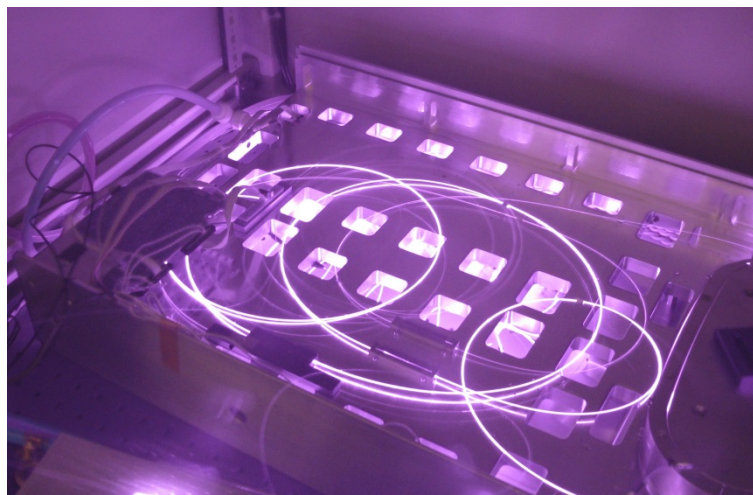
Convergent Photonics CF Series fiber laser, are designed to deliver the best performance in material processing to better suit the customer needs. The highly efficient and compact CF series high power fiber lasers with output power up to 1kW, guarantees low maintenance operation, high reliability and superior performances.



Convergent Photonics Fiber lasers are very easy to integrate in different machine configurations.

Main advantages in installing fiber lasers include:

- Flexible laser beam delivery, up to 5m standard delivery fiber length, longer lengths upon request
- High electro-optical efficiency, up to 32% wall-plug efficiency
- High peak energy in pulsed mode
- Simple, compact, maintenance free and robust design
- 19 " Rack configuration integrated Power Supply with communication cards
- 19 " Rack configuration Fiber Laser Module normally utilized on multi-kilowatt products



General Specifications

		CF1000		
		Min	Typ.	Max
Nominal Output Power		1000W		
Power Range		200 W	1000 W	1050 W
Power Stability			Typ. ± 1%	Typ. ± 2%
Pulsing Frequency		0 -5 kHz		
Wavelength		1070nm		1080nm
Polarization		Random		
Feeding fiber core diameter		20 µm or 50 µm		
Beam Parameter Product (1/e ₂)		0.7 mm*mrad (±1)		1 mm*mrad (±2)
Electronic Shutter On/Off Time		N/A		
Feeding fiber length		5 m		
Minimum bend radius		100 mm		
Output connector		QBH		
Estop Safety		PLe		
Diode Pointing Laser		Wavelength 635/658 nm Power <1 mW		
Electrical Power Consumption			3.3 kW	4.0 kW EOL
Voltage (50-60 Hz.)		90	220	364
Operating Environment (min/max)		5° C / 50° C		
Relative Humidity		< 95% non-condensing		
Laser Cooling 35% Glycol Mix	Cooling Cap.	2.3 kW*		
	Pressure	3 Bar	5 Bar	7 Bar
	Flow	7 l/Min	8 l/Min	10 l/Min
	Temp.	20° C ±1		
Process Fiber Cooling 35% Glycol Mix	Cooling Cap.	0.3 kW		
	Pressure	1.5 Bar	3 Bar	4 Bar
	Temp	27° C	30° C	33° C
Dimensions W / H / L	Power Supply	501mm /133mm /787mm (3U)		
	FLM	501mm /89mm /787mm (2U)		
Weight	Power Supply	64 Kg		
	FLM	23.5 Kg		
Connections	Coolant	10 mm push lock fitting (x2)		
Ingress Protection Rating (IEC60529)		See Note**		

*Note: Additional 1kW suggested for power meter cooling during service.

**Note: The laser needs to be protected from dust ingress that will interfere with operation of the unit, and from water splashed onto it. The specified test period is 8 hours, with maximum of 80 cabinet volumes of air exchanged with surroundings.