

High Power Diode Laser Systems

with Fiber Output

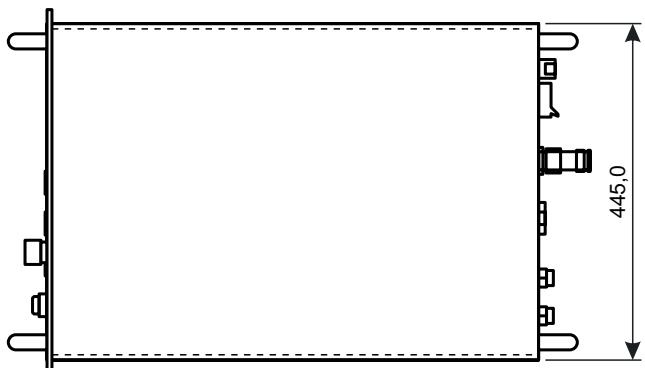
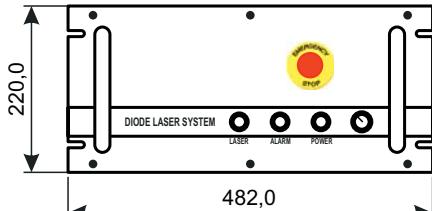
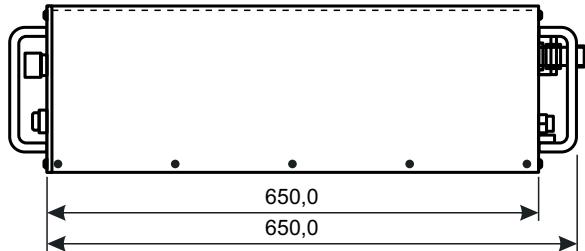


Applications:

Cladding

Welding

Heat treatment



Package Dimensions (mm)

FLC1000-F300

FLC2000-F600

FLC3000-F600



FLC300

Diode Laser System with Fiber Output

Specification

Optical data

Output power	10 – 300W CW at the fiber end
Center wavelength λ	450 – 1550nm
Tolerance of λ	$\pm 10\text{nm}$
Spectral width (FWHM)	< 3nm

Fiber data

Core diameter	105 / 200 / 400 μm
N.A.	≤ 0.22
Connector	SMA-905

Temperature control

Control range	15 – 30°C
Accuracy	$\pm 1^\circ\text{C}$
Alarm setting range	15 – 30°C

Electrical

Operation voltage	90 – 260V AC (50 – 60 Hz)
Operation current	< 15A
Operation mode	CW / QCW

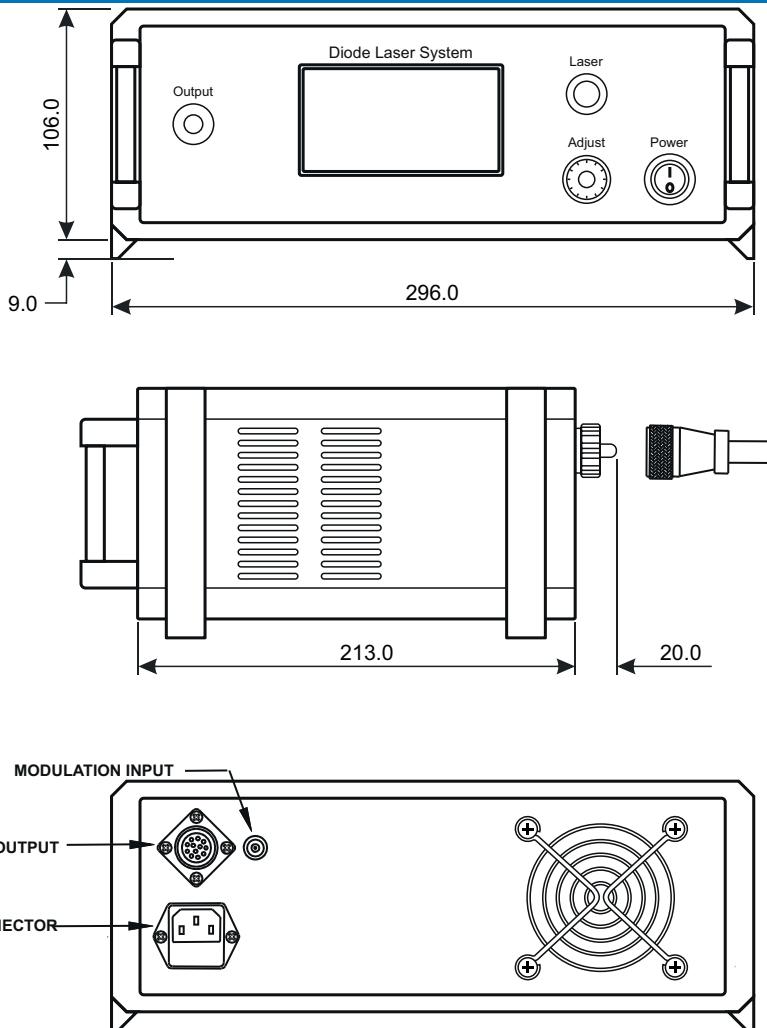
Mechanical

Housing dimensions (LxWxH)	305 x 295 x 135*mm
Weight	< 18kg

Environmental

Operating temperature range	0 – 40°C
Operation humidity	5 – 80%
Storage temperature range	-20 – 55°C

* at least 100 mm free space to the fan on both sides



Package Dimensions (mm)

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FLC300

Diode Laser System with Fiber Output



Features:

- Plug & Play
- High Power Visible or Infrared Laser Diode
- Up to 300W Laser Power
- Simple Turn-key Operation
- Fiber Output
- Adjustable Power/Current
- Adjustable Temperature Wavelength Tuning (2 – 3nm)

Options:

- Line Voltages (90 – 240V AC, 50 – 60Hz)
- RS232 Control
- External Modulation

Applications:

- Research in Medicine and Photodynamic Therapy
- Low-Level Laser Therapy
- Material Processing

FLC offers complete, turn-key diode laser system suitable for material processing, medical treatment and research.

The system delivers from 1W to 300W out of 100~600 μ m core fiber in wide variety of wavelengths from 450nm to 1550nm which makes it ideal instrument for new applications development.

FLC300 System offers control over laser diode power output, operating temperature and pulse frequency modulation through easy-to-use versatile interfaces. Parameters can be adjusted using front panel touch-screen display or through computer-controlled RS-232 interface.

See technical details on

www.frlaserco.com

FLC1000-F300

FLC2000-F600

FLC3000-F600

Typical Performance

Optical specification	FLC1000-F300	FLC2000-F600	FLC3000-F600
Output power	1000W	2000W	3000W
Wavelength	900nm~1070nm		
Fiber core [N.A.]	300µm [NA 0.22]	600µm [NA 0.22]	600µm [NA 0.22]
Fiber length	5m or 10m		
Fiber terminal	QBH		
Aiming beam	Red		
Operation mode	CW or Modulated		
Polarization state	Random		
Output power instability (25°C)	< 2% (2hrs)		
Output power tunability	10%-100%		
Modulation frequency	20kHz		

Electrical characteristics

Voltage	Single phase, 220±20V, AC, PE, 50 or 60Hz	3 phase, 380±30V, AC, PE, 50 or 60 Hz	3 phase, 380±30V, AC, PE, 50 or 60Hz
Power consumption at nom. Power, approx	3.0 kW	6.0 kW	9.0kW
Interface	FLC software, RS232, AD control		

Chiller

Cooling requirements, max.	2.5 kW	4.0 kW	5.0kW
Water discharge	8l/min	12l/min	15l/min
Hydraulic pressure	0.25MPa		
Cooling lines	φ12mm		

Others

Weight	40 kg	46 kg	66kg
Dimensions	5U (220 mm), 710mm depth		
Temperature	10 – 45 °C operational, 5 – 65 °C storage		
Humidity	max. 75% @ 25 °C, non condensing		
Protection rating	IP54		
Safety class	4 (EN 60825-01)		