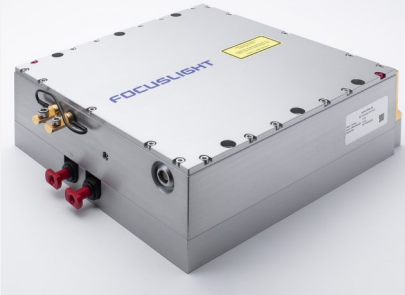


High Power Fiber Coupled Diode Laser

MF Series



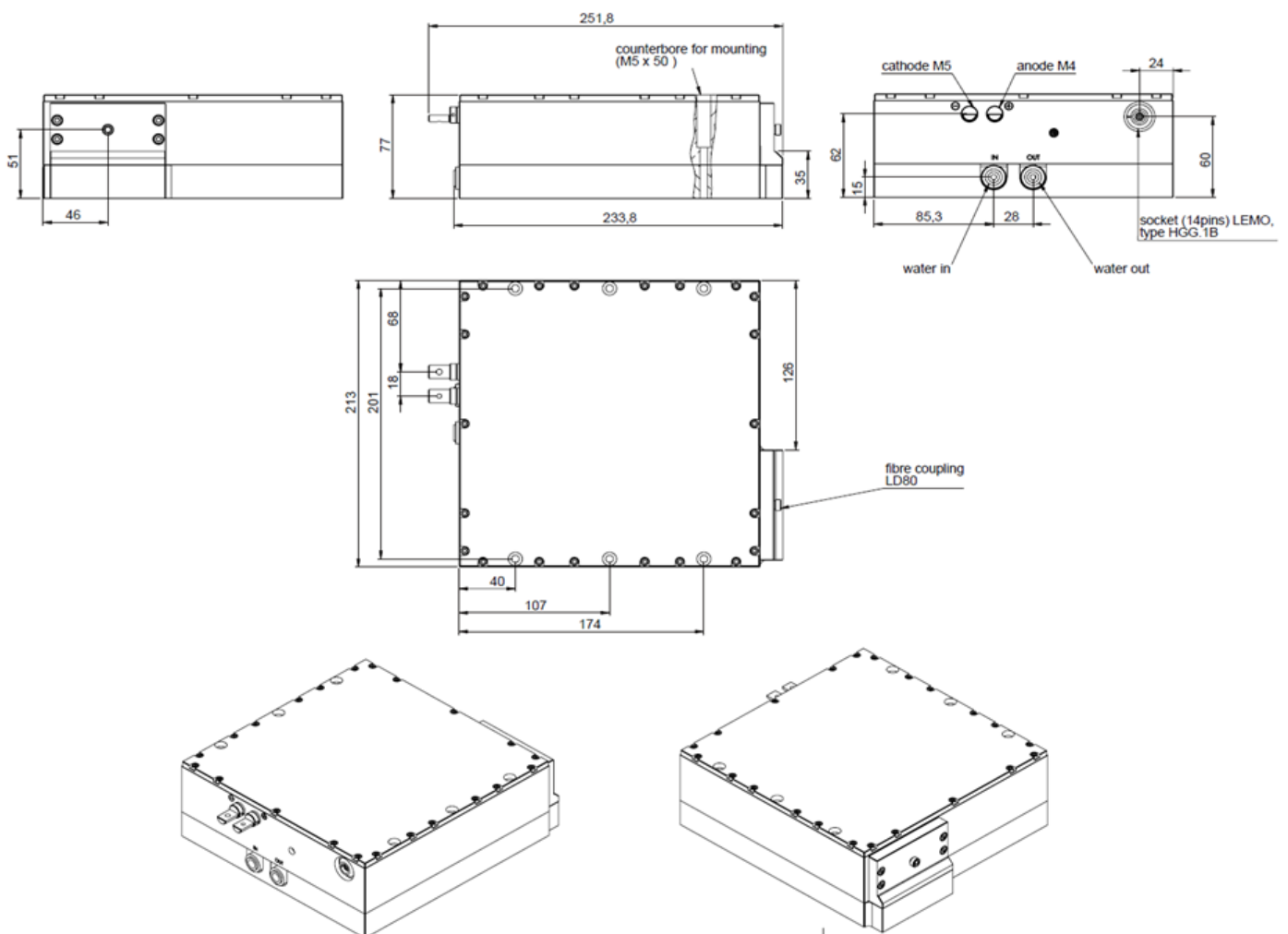
Features

- High brightness
- High E/O efficiency
- Compact housing
- Hermetically sealed housing
- Water Cooling
- Plug and play fiber connector

Applications

- Advanced Manufacturing
- Health
- Information Technology
- Scientific Research

Product Dimensions (mm)



Remark: The structure drawing is for reference only. Please feel free to contact us for any special requirements.

Product Specifications

Product Code	FCS000018	FCS000017	FCS000022	FCS000023
Part No. ¹	FL-MF2094-200-980-400	FL-MF1798-350-980-400	FL-MF3012-400-980-400	FL-MF3013-500-980-400

Optical Data	Unit	Value	Value	Value	Value
CW-nominal output power	W	200	350	400	500
Centroid wavelength	nm	980	980	980	980
Wavelength tolerance (±)	nm	10	10	10	10
Spectral width (FWHM)	nm	20	8	20	20
Wavelength Temp. drift	nm/°C	~ 0.34	~ 0.34	~ 0.34	~ 0.34
Wavelength stabilization		/	/	/	/

Operation Conditions					
Nominal diode heat sink Temp.	°C	25	25	25	25
Diode heat sink operation Temp. ²	°C	+15 ... +30	+15 ... +30	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	480	800	1000	1230
Chiller flow capacity	L/min	5	5	5	5
Water pressure	bar	4	4	4	4

Electrical Data					
Max. operation current start of life	A	62	67	80	80
Max. operation current end of life	A	75	80	96	96
Typical threshold current	A	6	6	8	8
Typical operation voltage	V	10	16	16	20
Typical slope	W/A	3.8	6.4	6.5	8.1
Typical E/O efficiency	%	39	39	40	40

Fiber connection					
Fiber included		/	/	/	/
Fiber core diameter	µm	400	400	400	400
Numerical aperture		0.22	0.22	0.22	0.22
Fiber optic connector		LD80	LD80	LD80	LD80

Package					
Dimensions	mm ³	251.8×213×77	251.8×213×77	251.8×213×77	251.8×213×77
Weight basic package	kg	7	7	7	7
Storage Temp.	°C	-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60

Additional Features					
Temp. sensors		NTC & Pt100	NTC & Pt100	NTC & Pt100	NTC & Pt100
Monitor diode (driver: 5V)	Output signal:	0...2.5V	0...2.5V	0...2.5V	0...2.5V
Pilot beam (driver: 5V, 40mA)		1mW, 635±20nm	1mW, 635±20nm	1mW, 635±20nm	1mW, 635±20nm
High reflection bandwidth (>99% S&P polarized)	nm	1030 ... 1130	/	/	/

Measurement					
Fiber		non AR coated, 400µm	non AR coated, 400µm	non AR coated, 400µm	non AR coated, 400µm
Diode heat sink Temp.	°C	25	25	25	25

¹ Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

² Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.



Product Specifications

Product Code	FCS000020		FCS000019		FCS000021	
Part No. ¹	FL-MF3004-250-808-400		FL-MF2151-400-808-400		FL-MF3005-400-800-400	
Optical Data	Unit	Value	Value	Value	Value	Value
CW-nominal output power	W	250	400	400	400	400
Centroid wavelength	nm	808	808	808	808	808
Wavelength tolerance (±)	nm	10	3	3	10	10
Spectral width (FWHM)	nm	20	5	5	20	20
Wavelength Temp. drift	nm/°C	~ 0.28	~ 0.28	~ 0.28	~ 0.28	~ 0.28
Wavelength stabilization		/	/	/	/	/
Operation Conditions						
Nominal diode heat sink Temp.	°C	25	25	25	25	25
Diode heat sink operation Temp. ²	°C	+15 ... +30	+15 ... +30	+15 ... +30	+15 ... +30	+15 ... +30
Minimum heat sink capacity	W	590	1000	1000	1000	1000
Chiller flow capacity	L/min	5	5	5	5	5
Water pressure	bar	4	4	4	4	4
Electrical Data						
Max. operation current start of life	A	65	65	65	65	65
Max. operation current end of life	A	78	78	78	78	78
Typical threshold current	A	8	8	8	8	8
Typical operation voltage	V	12	20	20	20	20
Typical slope	W/A	4.8	7.3	7.3	7.7	7.7
Typical E/O efficiency	%	39	37	37	37	37
Fiber connection						
Fiber included		/	/	/	/	/
Fiber core diameter	µm	400	400	400	400	400
Numerical aperture		0.22	0.22	0.22	0.22	0.22
Fiber optic connector		LD80	LD80	LD80	LD80	LD80
Package						
Dimensions	mm ³	251.8×213×77	251.8×213×77	251.8×213×77	251.8×213×77	251.8×213×77
Weight basic package	kg	7	7	7	7	7
Storage Temp.	°C	-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60	-20 ... +60
Additional Features						
Temp. sensors		NTC & Pt100	NTC & Pt100	NTC & Pt100	NTC & Pt100	NTC & Pt100
Monitor diode (driver: 5V)		Output signal: 0...2.5V	Output signal: 0...2.5V	Output signal: 0...2.5V	Output signal: 0...2.5V	Output signal: 0...2.5V
Pilot beam (driver: 5V, 40mA)		1mW, 635±20nm	1mW, 635±20nm	1mW, 635±20nm	1mW, 635±20nm	1mW, 635±20nm
High reflection bandwidth (>99% S&P polarized)	nm	/	1030 ... 1130	1030 ... 1130	/	/
Measurement						
Fiber		non AR coated, 400µm	non AR coated, 400µm	non AR coated, 400µm	non AR coated, 400µm	non AR coated, 400µm
Diode heat sink Temp,	°C	25	25	25	25	25

¹Part No. = Brand Code - Series - Power - Centroid Wavelength - Fiber Core Diameter.

²Operation beyond recommended temperature may cause lifetime reduction or even damage to the product.

