

## 3000W-4000W SINGLE MODULE CW FIBER LASER

New generation 3000W~4000W single module CW fiber laser, which combine with high power, light weight, high quality beam quality and high light conversion efficiency. It is used for quick cutting, high frequency cutting and smooth surface cutting of carbon steel, stainless steel, brass and aluminum. It can meet the requirements of precision machining, 3C product welding and high- reflective material cutting.

Product advantages :

1. High power output.
2. Fully sealed design.
3. More stable processing.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFSC-3000W	100% CW		3000		W
Output Power MFSC-4000W	100% CW		4000		W
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100% CW (50u-QBH)		1.1	1.5	mm x mard
	100% CW (100u-QBH)		2.5	3.5	
Laser Switching ON Time	10% → 90% Output		100	150	µs
Laser Switching OFF Time	90% → 10% Output		100	150	µs
Modulation Rate	100% Output			5	KHz
Red Guide Laser Power	100% Output	200			µW
Feeding Fiber Cable Length		20			m
Feeding Fiber Core Size		50 (100/200 optional)			µm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		360	380	410	VAC
Nominal Power Consumption MFSC-3000W	100% Output			11	KW
Nominal Power Consumption MFSC-4000W	100% Output			14	KW
Operating Ambient Temperature		10		40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10		60	°C
Dimensions	640*1000*700				mm
Weight	MFSC-3000W	200 (±20)			kg
	MFSC-4000W				

**Application:** laser cutting, laser welding, brazing, surface treatment, etc.



## 2000W-4000W MULTI-MODULE CW FIBER LASER

2000-4000W Multi-Module CW Laser Series adapt with water cooling, high power efficiency, high reliability and free of maintenance. The wave length is from 1070nm to 1090nm, with over 30% Photoelectric Conversion .

High beam quality and high beam stability are the ideal laser source for laser cutting, laser welding, laser cladding, surface heat treatment, etc.

With the fiber laser QBH output head, the laser source can be integrated with robot or machine tool to do application in laser cutting field, new energy, construction machinery, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW				
Polarization State	Random				
Output Power of MFMC-2000W			2000		W
Output Power of MFMC-2500W			2500		W
Output Power of MFMC-3000W			3000		W
Output Power of MFMC-4000W			4000		W
Adjustment Range of Output Power		5		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100%Output Power (100um QBH)		3	4	mm x mard
Laser Switching ON Time	10% → 90% Output		50	80	μs
Laser Switching OFF Time	90% → 10% Output		30	50	μs
Modulation Rate	100% Output			20	KHz
Red Guide Laser Power	100% Output	200			μW
Feeding Fiber Cable Length			20		m
Feeding Fiber Core Size	100 (200 optional)				μm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		360	380	410	VAC
Nominal Power Consumption of MFMC-2000W	100% Output			8	KW
Nominal Power Consumption of MFMC-2500W	100% Output			10	KW
Nominal Power Consumption of MFMC-3000W	100% Output			12	KW
Nominal Power Consumption of MFMC-4000W	100% Output			15	KW
Operating Ambient Temperature		10		40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10		60	°C
Dimensions	1210.5x902x1000				mm
Weight	MFMC-2000W	380 (±10)			kg
	MFMC-2500W				
	MFMC-3000W				
	MFMC-4000W				

**Application:** laser cutting, laser welding, laser cladding, brazing, surface heat treatment, etc.



## 6000W MULTI-MODULE CW FIBER LASER

6000W High power multi-module CW laser series adapt with water cooling, modular design and over IP66 full sealed which can bear water from every direction and monitor real time.

The compact design, highly-integrated system, free of maintenance, high reliability, high beam quality and high beam stability are the important factor of ideal laser source for laser cutting, laser welding, laser cladding, surface heat treatment, etc.

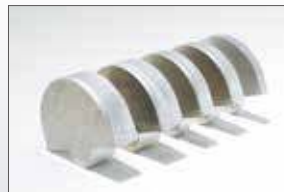
With the fiber laser QBH output head, the laser source can be integrated with robot or machine tool to do application in laser cutting field, new energy, construction machinery, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFMC-6000W		5900		6100	W
Adjustment Range of Output Power		5		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100%Output Power 6000W(100umQBH)	3		4	mm x mard
	100%Output Power 6000W(200umQBH)	8		10	
Laser On Delay	10% → 90% Output		150	200	µs
Laser Off Delay	90% → 10% Output		150	200	µs
Modulation Rate	100% Output 6000W			20	KHz
Red Guiding light Power	100% Output	200			µW
Fiber Cable Length			20		m
Fiber Core Size	100 (200 optional)				µm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		340	380	420	VAC
Nominal Power Consumption of MFMC-6000W	100% Output			22	KW
Operating Ambient Temperature		10	25	40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10	25	60	°C
Dimensions	1954x1208x900				mm
Weight	560 (±20)				kg

**Application:** laser cutting, laser welding, laser cladding, brazing, surface heat treatment, etc.



## 8000W~10000W MULTI-MODULE CW FIBER LASER

8000W~10000W High power multi-module CW laser series adapt water cooling and modular design.

The compact design, highly-integrated system, free of maintenance, high reliability, high beam quality and high beam stability are the important factors of ideal laser source for laser cutting, laser welding, laser cladding, surface heat treatment, etc.

With the fiber laser QBH head output, the laser source can be integrated with robot or machine tool to do application in laser cutting field, new energy, construction machinery, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFMC-8000W			8000		W
Output Power MFMC-10000W			10000		W
Adjustment Range of Output Power		5		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100%CW 8000W (100umQBH)	3		4	mm x mard
	100%CW 8000W (200umQBH)	8		10	
	100%CW 10000W (100umQBH)	3		4	
	100%CW 10000W (200umQBH)	8		10	
Laser On Delay	10% → 90% Output		50	80	μs
Laser Off Delay	90% → 10% Output		30	50	μs
Modulation Rate	100% Output			20	KHz
Red Guiding Light Power	100% Output	200			μW
Fiber Cable Length			20		m
Fiber Core Size	100 (200 optional)				μm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	QBH & LOC				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		360	380	410	VAC
Nominal Power Consumption of MFMC-8000W	100% Output			26	KW
Nominal Power Consumption of MFMC-10000W	100% Output			33	KW
Operating Ambient Temperature		10	25	40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10	25	60	°C
Dimensions	1210.5x902x1670				mm
Weight of MFMC-8000W	560 (±20)				Kg
Weight of MFMC-10000W	815 (±20)				

**Application:** laser cutting, laser welding, laser cladding, brazing, surface heat treatment, etc.



## 12000W~15000W MULTI-MODULE CW FIBER LASER

12000W~15000W High power multi-module CW laser series adapt water cooling and modular design.

The compact design, highly-integrated system, free of maintenance, high reliability, high beam quality and high beam stability are the ideal laser source for laser cutting, laser welding, laser cladding, surface heat treatment, etc.

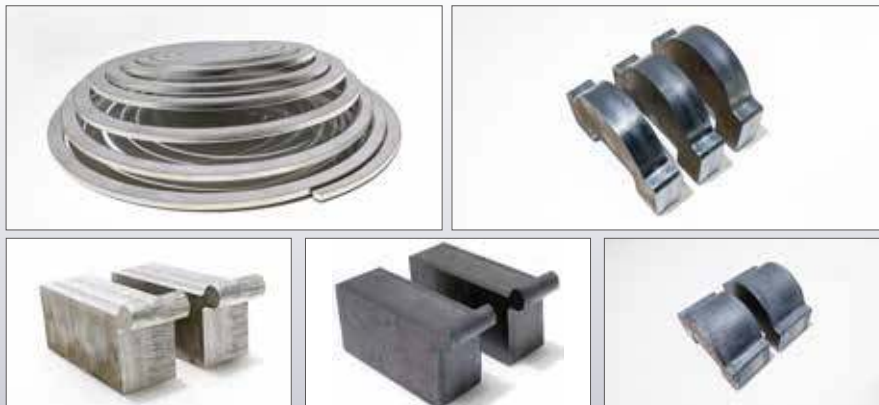
With the fiber laser QBH output head, the laser source can be integrated with robot or machine tool to do application in laser cutting field, new energy, construction machinery, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
MFMC-10000W	100% Output		10000		W
MFMC-12000W	100% Output		12000		W
MFMC-15000W	100% Output		15000		W
Adjustment Range of Output Power		5		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100%CW(100umQBH)	3		4	mm x mard
	100%CW (150umQBH)	5		6.5	
	100%CW (200umQBH)	8		10	
Laser On Delay	100% Output		150	200	µs
Laser Off Delay	100% Output		150	200	µs
Modulation Rate	100% Output			5	KHz
Red Guiding Light Power	100% Output	200			µW
Fiber Cable Length			20		m
Fiber Core Size	100 (200 optional)				µm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	LOE (Q+)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		340	380	420	VAC
Nominal Power Consumption of MFMC-10000W	100% Output			32	KW
Nominal Power Consumption of MFMC-12000W	100% Output			40	KW
Nominal Power Consumption of MFMC-15000W	100% Output			50	KW
Operating Ambient Temperature		10	25	40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10	25	60	°C
Dimensions	1050x1460x1640				mm
Weight	MFMC-10000W	740			kg
	MFMC-12000W	768			
	MFMC-15000W	860			

**Application:** laser cutting, laser welding, laser cladding, brazing, surface heat treatment, etc.



## 20000W~25000W MULTI-MODULE CW FIBER LASER

Unique design of 20KW-25KW with built-in industry's highest single module power, unique back reflection protection technology and internal modular layout with high energy density (15um output), achieving ultra-high power output with the smaller size and energy saving. The laser power is continuously adjustable with high electro-optic conversion efficiency and superior beam quality. The 20KW-25KW is an ideal laser source which will greatly expand the domestic market for ultra-thick sheet cutting, laser hybrid welding, automatic welding, metal and non-metal materials cutting, welding, drilling, cladding, additive manufacturing, surface heat treatment and other applications.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
MFMC-20000W	100% Output	19500		20500	W
MFMC-25000W	100% Output	24500		25500	
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1070	1080	1085	nm
Spectrum Width(3dB)	100% CW		3	6	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality (BPP)	100%CW(150umQBH)	5		6.5	
	100%CW(200umQBH)	8		10	
Laser On Delay	100% Output		150	200	µs
Laser Off Delay	100% Output		150	200	µs
Power modulation frequency 50% Duty Ratio	100% Output	0		5	KHz
Red Guiding Light Power	100% Output	200			µW
Fiber Cable Length			20		m
Fiber Core Size	150/200				µm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	LOE (Q+)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		340	380	420	VAC
Nominal Power Consumption of MFMC-20000W	100% Output			75	KW
Nominal Power Consumption of MFMC-25000W	100% Output			95	KW
Operating Ambient Temperature		10	25	40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10	25	60	°C
Dimensions	1050x1460x1640				mm
Weight	MFMC-20000W	1110 (±20)			kg
	MFMC-25000W	1200 (±20)			

**Application:** laser cutting, laser welding, laser cladding, brazing, surface heat treatment, etc.

