

## 300W-500W SINGLE MODULE CW FIBER LASER

The MFSC 300W-500W series lasers are water-cooled and maintenance-free and with a wall plug efficiency of more than 25% and deliver high efficiency, high reliability and high performance, which can be used for cutting, welding and drilling of metal materials such as stainless steel, carbon steel, aluminum and copper. It is widely used in sheet metal cutting, metal processing, home appliance manufacturing, automobile manufacturing and other fields.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFSC-300	100% CW		300		W
Output Power MFSC-500	100% CW		500		W
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1075	1080	1085	nm
Spectrum Width(3dB)	100% CW		3	5	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality M <sup>2</sup>	100% CW		1.2	1.3	
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	150			μW
Feeding Fiber Cable Length			12		m
Feeding Fiber Core Size		25 (20、30、50 optional)			μm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		180	220	240	VAC
Nominal Power Consumption MFSC-300W	100% Output			1.2	KW
Nominal power consumption MFSC-500W	100% Output			2	KW
Operating Ambient Temperature		10	25	40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10	25	60	°C
Start temperature of laser		26			°C
Dimensions	725.9*482.6*154.7 (W*D*H)				mm
Weight	35 (±2)				kg

**Application:** cutting, welding, drilling for carbon steel, SS, copper, etc.



## 700W-1000W SINGLE MODULE CW FIBER LASER

MFSC 700W-1000W single module CW fiber laser, based on modular design, has excellent beam quality and high stability, which structure is compact and water-cooling. The laser can be adjusted continuously, and the beam is transmitted by fiber and QBH connector, which is ideal for laser cutting, laser welding, etc. The laser is very suitable for system integration with robot or machine tool, and is widely used for laser cutting, welding, 3D printing, electronics, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFSC 700W	100% CW		700		W
Output Power MFSC 800W	100% CW		800		W
Output Power MFSC 1000W	100% CW		1000		W
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	5	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality M <sup>2</sup>	100% CW (20u-QBH)			1.3	
	100% CW (50u-QBH)			2.8	
Laser Switching ON Time	10% → 90% Output		50	100	μs
Laser Switching OFF Time	90% → 10% Output		50	100	μs
Modulation Rate	100% Output			20	KHz
Red Guide Laser Power	100% Output	150			μW
Feeding Fiber Cable Length			15		m
Feeding Fiber Core Size		50 (30、100 optional)			μm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		180	220	240	VAC
Nominal Power Consumption (MFSC 700W)	100% Output			2.5	KW
Nominal Power Consumption (MFSC 800W)	100% Output			2.8	KW
Nominal Power Consumption (MFSC 1000W)	100% Output			3.5	KW
Operating Ambient Temperature		10		40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10		60	°C
Dimensions	800*482.6*193.2				mm
Weight	50±3				kg

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



## 1200W-1500W SINGLE MODULE CW FIBER LASER

MFSC 1200W-1500W single module CW fiber laser, based on modular design, the protection grade can reach IP67, has excellent beam quality and high stability, which structure is compact and water-cooling. The laser can be adjusted continuously, and the beam is transmitted by fiber and QBH connector, which is ideal for laser cutting, laser welding, etc. The laser is very suitable for system integration with robot or machine tool, and is widely used for laser cutting, welding, 3D printing, electronics, automobile parts, aerospace, etc.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFSC-1200W	100% CW		1200		W
Output Power MFSC-1300W	100% CW		1300		W
Output Power MFSC-1500W	100% CW		1500		W
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	5	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality M <sup>2</sup>	100% CW (20u-QBH)			1.3	
	100% CW (50u-QBH)			2.8	
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	50	KHz
Red Guide Laser Power	100% Output	150			μW
Feeding Fiber Cable Length			15		m
Feeding Fiber Core Size		50 (30、100 optional)			μm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		180	220	240	VAC
Nominal Power Consumption MFSC-1200W	100% Output			4.8	KW
Nominal Power Consumption MFSC-1300W	100% Output			5.2	KW
Nominal Power Consumption MFSC-1500W	100% Output			6	KW
Operating Ambient Temperature		10		40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10		60	°C
Dimensions	800x482.6x192.9				mm
Weight	88				kg

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



## 2000W SINGLE MODULE CW FIBER LASER

The new generation of single module 2000W fiber lasers which combined with high power, compact size, superior beam quality, and high light conversion efficiency. It can meet the requirements of precision processing, 3C product welding and high-reflective material cutting ability are significantly improved. It is suitable for remote processing, high-frequency laser cutting and clean surface cutting. It can be quickly and conveniently integrated into machine tool equipment and large-scale factory automation production line.

Product advantages:

1. More reliable and saving power.
2. Easy to maintain.
3. Easy to operate.



Optical Characteristics	Test Conditions	Min.	Typical	Max.	Unit
Operation Mode	CW/Modulated				
Polarization State	Random				
Output Power MFSC-2000W	100% CW		2000		W
Adjustment Range of Output Power		10		100	%
Emission Wavelength	100% CW	1070	1080	1090	nm
Spectrum Width(3dB)	100% CW		3	5	nm
Short-term Power Stability	100% CW>1h		±1	±1.5	%
Long-term Power Stability	100% CW>24h		±2	±3	%
Beam Quality M <sup>2</sup>	100% CW (20u-QBH)			2.1	
	100% CW (50u-QBH)			2.8	
Laser Switching ON Time	10% → 90% Output		50	100	µs
Laser Switching OFF Time	90% → 10% Output		50	100	µs
Modulation Rate	100% Output			20	KHz
Red Guide Laser Power	100% Output	150			µW
Feeding Fiber Cable Length			15		m
Feeding Fiber Core Size		50 (35、100 optional)			µm
Feeding Fiber Cable Bending Radius		200			mm
Output Connector	Standard QBH (LOC)				

General Characteristic	Test Conditions	Min.	Typical	Max.	Unit
Operating Voltage		180	220	240	VAC
Nominal Power Consumption MFSC-2000W	100% Output			7.0	KW
Operating Ambient Temperature		10		40	°C
Operating Ambient Relative Humidity		10		85	%
Cooling Method	Water-cooling				
Storage Temperature		-10		60	°C
Dimensions	950*482.6*193.2				mm
Weight	68±3				kg

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



## 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.

