

6kW Fiber Laser Source Specifications

Laser Type	6kW Fiber Laser
Fiber Diameter	100μm
Modulation Frequency	50kHz
Cooling Method	Water Cooling
Output Power Stability	±2%
Power Adjustment Range	5%-100%
Center Wavelength	1060-1100nm
Power Supply	380-400VAC

6kW Fiber Laser Cutting Parameters (Reference Only)

Material (Gas)	Thickness (mm)	Cutting Speed (m/min)	Gas Pressure (bar)	Nozzle (mm)
Carbon Steel (Air)	1	9.5-10	2.5	1
	2	5.5-6.5	2.5	1
	3	3.6-4.5	2.5	1
	4	3.5-3.9	0.6	1
	5	3.2-3.5	0.6	1
	6	2.6-3.2	0.6	1
	8	2.1-2.8	0.7	1.2
	10	2-3.5	0.7	1.2
	12	1.9-3.4	0.7	1.2
	14	1.8-3.3	0.7	1.4
	16	1.6-3.2	0.7	1.4
	20	1.3-3.0	0.7	1.6
Aluminum Alloy (Nitrogen)	1	50-60	10	2.5
	2	35-40	10	2.5
	3	32-35	12	3.5
	4	45-50	12	3.5
	5	35-38	12	3.5
	6	22-25	12	3.5
	8	12-15	12	3.5
	10	9.5-10	20	3.5
	12	6.2-7	20	3.5
	14	4.5-5	20	3.5
	16	2.6-3	25	5
Brass (Nitrogen)	1	45-50	10	2.5
	2	30-35	10	2.5
	3	19-20	10	3.5
	4	22-28	12	3.5
	5	20-25	12	3.5
	6	14-15	12	3.5
	8	9.5-11	12	3.5
	10	6-8.5	12	3.5
Copper (Oxygen)	1	30-32	7	2.5
	2	20-22	7	2.5
	3	13-15	7	3.5
	4	18-22	7	3.5
	5	10-11.5	7	3.5

Note: The above data are obtained through testing and are for reference only. Actual performance may vary based on material quality, environmental conditions, and specific application requirements.