

## D60 Series RF CO₂ Lasers

The D60 series RF CO<sub>2</sub> lasers boasts high reliability, featuring a compact integrated design that combines the RF power supply with the laser cavity. It offers exceptional beam quality and power stability, with a laser wavelength range of 9.3 to 10.6  $\mu$ m and can be configured for both air cooling and water cooling. These attributes make it the preferred choice for high-performance laser marking and engraving systems, while also incur very low operational and maintenance costs.

The D60 series RF CO<sub>2</sub> laser is an ideal solution for laser processing of various materials, including paper, plastic, wood, rubber, leather, and fabric etc.



## **Advantages:**

- · Excellent beam quality
- Stable power output
- Integrated design of RF power supply and laser cavity
- High reliability
- Both air and water cooling available
- Capable of high-quality laser processing on a variety of materials

## **Applications:**

- Marking
- Engraving
- Cutting

#### **Application Scenarios:**



Silicone Strap Marking



Wood Product Marking



Paper Engraving



Denim products
Engraving



# **D60 Series Product Specifications**

MODEL	D60i	D60		GMIT60
Wavelength (μm)	9.3	10.2	10.6	10.6
Optical Output Power(W) $^{ ext{(W)}}$	≥ 40W	≥50W	≥ 60W	≥ 60W
Power Stability(%) <sup>②③</sup>	< ±5% < ±4.5%			
Mode Quality (M²)	$M^2 < 1.2$ $M^2 < 1.15$			$M^2 < 1.15$
Beam Elipticity	<1.2:1 <1.15:1			
Beam Size (mm)	1.8±0.2			
Beam Divergence (mrad, full angle)	7.5±0.5			
Polarization	> 100:1			
Pulse Frequency (kHz)	0 ~ 25kHz			
Duty Cycle	0 ~ 100%			
Weight	10.2kg(Fan) / 8.8kg(Water)			
Dimensions(mm)	539.2 × 92 × 155.2(Fan) / 539.2 × 92 × 94.8(Water)			
Cooling	Fan / Water			
Heat Dissipation (W)	< 1200W			
Input Power				
DC Input Voltage (VDC)	48VDC			
DC Input Current(A) <sup>④</sup>	25A			
Environment Condition				
Maximum Case Temperature	<55℃			
Temperature	5°C ~35°C			
Altitude	< 2000m			
Humidity	Non-Condensing			
Shipping/Storage Environment	-10°C~60°C, Non-Condensing			
Coolant				
Dynamic Coolant Flow Rate (I/min)	4L/min			
Coolant Maximum Static Pressure (kPa)	500kPa			
Coolant Setpoint Temperature Range	<b>20</b> °C - <b>30</b> °C			
Hardness of water (CaCO3)	< 250mg/L			
The above specifications are subject to change without prior notice  Notes:				

- ① Measured at 25°C and derated by 1%/°C for higher laser head temperatures
- ② Power Stability definition: ± (Pmax-Pmin)/(2Pmax)
- ③ Measured at constant duty cycle after 10 minutes laser out at operating condition
- ④ Measured at 10 kHz PRF and 100% duty cycle operation, maximum average input current