

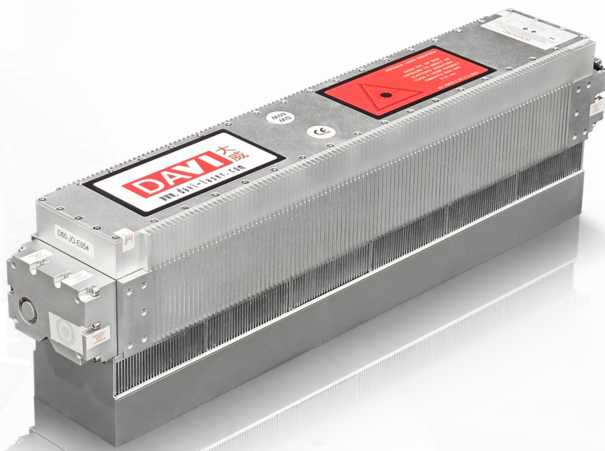
D60

二氧化碳射频激光器

Carbon dioxide RF laser

D60系列射频 CO₂ 激光器以高可靠性著称，其紧凑设计将射频电源与激光腔体集成于一体，确保了卓越的光束质量和功率稳定性。

The D60 series RF CO₂ lasers are well-known for their high reliability, featuring a compact design that integrates the RF power supply with the laser cavity. This configuration ensures excellent beam quality and power stability.



产品特点

- ◆ 光束质量卓越
- ◆ 功率输出稳定
- ◆ 射频电源与激光腔体一体化设计
- ◆ 可靠性高支持空气与水冷双模式
- ◆ 能对多种材料进行高质量激光加工

Product Features

- ◆ Excellent beam quality
- ◆ Stable power output
- ◆ Integrated design of RF power supply and laser cavity
- ◆ High reliability
- ◆ Both air and water cooling available

应用场景

Application Scenarios



塑胶手环雕刻
Silicone Strap
Marking



木制品打标
Wood Product
Marking



纸张雕刻
Paper Engraving



牛仔制品雕刻
Denim products
Engraving

产品参数

Product parameter

参数 SPECIFICATIONS	型号 MODEL	D60		GMIT60
		D60i	D60	
波长(μm) Wavelength(μm)		9.3	10.2 10.6	10.6
输出功率(W) ^① Optical Output Power(w) ^①		≥ 40W	≥ 50W ≥ 60W	≥ 60W
功率稳定性 ^{②③} Power Stability(%) ^{②③}		< ± 5%		< ± 4.5%
光束质量(M ²) Mode Quality (M ²)		M ² < 1.2		M ² < 1.15
光束椭圆度 Beam Ellipticity		< 1.2:1		< 1.15:1
光束直径(mm) Beam Size(mm)		1.8 ± 0.2		
光束发散角(mrad全角) Beam Divergence(mrad,full angle)		7.5 ± 0.5		
偏振(线性偏振,平行于宽度) Polarization		> 100:1		
脉冲频率 Pulse Frequency (kHz)		0 ~ 25kHz		
占空比 Duty Cycle		0 ~ 100%		
重量 Weight		10.2kg(风冷 Fan) / 8.8kg(水冷 Water)		
尺寸: 长*宽*高(mm) Dimensions(mm)		539.2 × 92 × 155.2(风冷 Fan) / 539.2 × 92 × 94.8(水冷 Water)		
散热方式 Cooling		风冷 Fan/ 水冷 Water		
热负荷 Heat Dissipation(W)		< 1200W		
电源要求 Input Power				
输入电压 DC Input Voltage (VDC)		48VDC		
输入电流 ^④ DC Input Current(A) ^④		25A		
环境条件 Environment Condition				
外壳最高温度 Maximum Case Temperature		< 55°C		
工作环境温度 Temperature		5°C ~ 35°C		
海拔高度 Altitude		< 2000m		
湿度 Humidity		无冷凝 Non-Condensing		
航运和存储环境 Shipping/Storage Environment		-10°C ~ 60°C, 无冷凝 Non-Condensing		
冷却水要求 Coolant				
流速 Dynamic Coolant Flow Rate(l/min)		4L/min		
最大压力 Coolant Maximum Static Pressure(kPa)		500kPa		
温度 Coolant Setpoint Temperature Range		20°C - 30°C		
硬度 (CaCO ₃) Hardness of water(CaCO ₃)		< 250mg/L		
以上规格如有变动, 恕不另行通知 说明:		The above specifications are subject to change without prior notice Notes:		
① 激光输出功率在激光器温度25°C条件下测得, 高于25°C每上升1°C输出功率约降1%		① Measured at 25°C and derated by 1%/°C for higher laser head temperatures		
② 功率稳定性定义: ±(Pmax-Pmin)/(2Pmax)		② Power Stability definition: ±(Pmax-Pmin)/(2Pmax)		
③ 功率稳定性测量条件: 在正常的工作环境下, 占空比恒定, 出光10分钟后		③ Measured at constant duty cycle after 10 minutes laser out at operating condition		
④ 在10 kHz的脉冲重复频率和100%占空比条件下, 测量最大平均输入电流		④ Measured at 10 kHz PRF and 100% duty cycle operation, maximum average input current		