

紫外激光器发射波长在紫外波段的激光，具有高能量密度。它在精密加工领域表现出色，能够对玻璃、陶瓷和半导体等各种材料进行精细的微加工，蚀刻出高精度的图案。

Ultraviolet laser emits laser with wavelength in ultraviolet band, which has high energy density. It performs well in the field of precision machining, and can finely micromachine various materials such as glass, ceramics and semi-conductors, and etch high-precision patterns.

DY-3/5

紫外激光器

UV laser



产品特点

- ◆ 光电转换效率高，能耗低；
- ◆ 光束质量好， $M^2 < 1.3$ ，加工效率高，工艺质量高；
- ◆ 脉冲宽度窄，热影响区小，加工性能稳定；
- ◆ 结构紧凑，可靠性高

Product Features

- ◆ High photoelectric conversion efficiency and low energy consumption;
- ◆ High-quality light beam, with an M^2 value of less than 1.3, resulting in high processing efficiency and high-quality processed materials;
- ◆ Narrow pulse width, small heat-affected zone, and stable processing performance;
- ◆ Compact structure and high reliability.

应用场景

Application Scenarios



瓶盖打标
Bottle cap marking



叶雕
Leaf carving



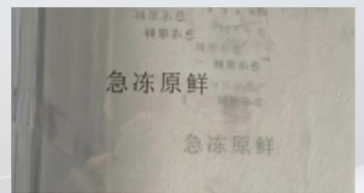
金属标刻
Metal marking



木雕
Wood carving



PCB打码
PCB marking



冰箱抽屉打标
Marking on refrigerator drawer

产品参数

Product parameter

参数 Specifications	型号 Model	
	DY3	DY5
波长 Wavelength	355nm	
连续输出功率 ^① Continuous Output Power ^①	> 3W	> 5W
脉冲宽度 Pulse Width	< 15ns	
脉冲频率 Pulse Repetition Frequency	30~100kHz	
功率稳定性 Power Stability	< ±3%	
光束质量 Beam Quality Factor (M ²)	M ² < 1.3	
光束椭圆度 Beam Ellipticity	> 90%	
光束直径 Beam Diameter	0.6mm	
光束发散角(mrad全角) Beam Divergence (mrad, full angle)	1.5mrad	
偏振(水平偏振) Polarization: Linear, horizontal	> 100:1	
光束指向稳定性 Beam Pointing Stability	< 25 μrad	
重量 Weight	6.55kg	
尺寸(长*宽*高) Dimensions (L × W × H)	343mm × 117mm × 152mm	
热负荷 Heat Dissipation	< 80 W	< 120 W
电源要求 Electrical Requirements		
输入电压 Input Voltage	15VDC/24VDC	
输入电流 ^② Input Current ^②	15A	
环境条件 Environmental Conditions		
最大腔体温度 Maximum Cavity Temperature	< 40°C	
工作时环境温度 Operating Ambient Temperature	10°C~40°C	
湿度 Relative Humidity (non-condensing)	20%~80%, 无冷凝 Non-condensing	
航运和存储环境 Storage and Transportation Conditions	-20°C~50°C	
以上规格如有变动, 恕不另行通知。 说明: ① 从冷启动开始预热 5 分钟后, 在脉冲频率 50 kHz 条件下测量 ② 最大平均电流 15 A, 峰值电流 20 A		Specifications are subject to change without prior notice. Notes: ① Measured after 5 minutes of warm-up from cold start, at a pulse repetition frequency of 50 kHz. ② Maximum average current: 15 A; peak current: 20 A.