

脉冲光纤激光器

PULSED FIBER LASER

先导激光脉冲光纤激光器基于主振荡功率放大（Master Oscillator Power-Amplifier: MOPA）结构设计，主振荡器用于产生纳秒（ns）级光脉冲，经过整形后，由一级或者多级的功率放大器提升输出功率。该设备脉冲频率和脉冲宽度是独立可控的，通过这两项激光参数调整搭配，可实现恒定的高峰值功率输出，能适用于更广泛的加工应用。更高的输出功率使其在高速打标、薄金属切割、激光清洗等应用中优势尤为突出。

The VLS pulsed fiber laser is designed based on the Master Oscillator Power-Amplifier (MOPA) structure. The master oscillator is used to generate nanosecond (ns) optical pulses. After shaping, the output power is increased by one or more stages of power amplifiers. The pulse frequency and pulse width of this equipment are independently controllable. Through the adjustment and combination of these two laser parameters, a constant high peak power output can be achieved, which can be applied to a wider range of processing applications. The higher output power makes it particularly prominent in applications such as high-speed marking, thin metal cutting, and laser cleaning.



产品特点

Product Features

- 工业级的紧凑尺寸
Industrial grade compact size
- 高精度光束
High precision beam
- 高可靠性
high reliability
- 高能效比
High energy efficiency ratio

产品参数

Product parameters

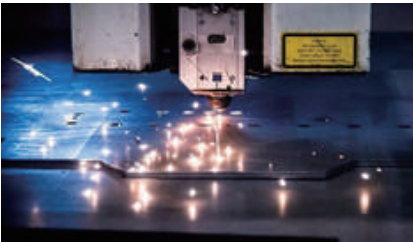
型号 Model	VLS-OA-AS-60	VLS-OA-AS-120	VLS-OA-AS-350	VLS-OA-LC-500
光学特性 Optical Properties				
中心波长 Wavelength	1064±5nm			
光谱宽度 Emission Linewidth	< 15nm			
平均输出功率 Average output power	60W	120W	350W	500W
最大脉冲能量 Maximum pulse energy	2mJ	1.5mJ		
频率可调范围 Power Modulation Rate	1-4000kHz			
脉宽范围 Pulse width range	2-500ns			
光束质量 Beam quality	< 1.5m²	< 1.6m²		< 1.7m²
光束直径 Beam Diameter (1/e²)	7±0.5mm	7±0.5mm	7±0.5mm	7±0.5mm
光纤长度 Cable Length	5m			
接头类型 Beam Delivery	QCS			
指示光 Guide Beam	650nm 0.5~1mW			
电学特性 Electrical Properties				
工作模式 Operation Mod	脉冲 Pulse			
工作电压 Voltage	24V	48V		
功率稳定性 Power Stabil	5%@8h			
整机功耗 Power Consumption	< 350W	< 450W	< 1500W	< 1700W
其他特性 Others				
整机尺寸 Dimensions	254x205x75mm	335x255x90mm	351x483x135mm	
工作温度 Working Temp	0-40℃			
储存温度 Storage Temp	-20-60℃			
冷却方式 Cooling method	风冷 Air cooling			水冷 Water cooling

应用领域

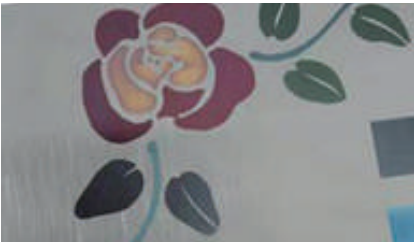
Application Fields



激光清洗 Laser Cleaning



薄板切割 Sheet Cutting



激光打标 Laser Marking