



450nm 500W High Power Diode Laser

MODEL: BDL-CW500-E300



Features:

- ◆ Excellent power stability
- ◆ Two modes: continuous and modulated pulse
- ◆ Maximum modulation frequency up to 5kHz
- ◆ Excellent system stability
- ◆ Simple control interface

Applications:

- ◆ 3D printing
- ◆ surface treatment
- ◆ welding
- ◆ Lithium battery processing

Compared with traditional lasers, the BDL-CW500W blue laser has a higher absorption rate for copper, aluminum and other materials. It can process nonferrous metals with lower power. It is compact in structure and easy to use.

BWT, founded in 2003, is committed to the mission of "let the dream drive the light", the vision of becoming the "Global leader in laser solutions", and the value of "Outstanding innovation", providing diode laser, fiber laser, ultra-fast laser products and solutions to global customers.

The company pursues continuous innovation and insists on autonomous and controllable advanced process and technology. With Beijing headquarters as the core, BWT has successively established production and R&D centers in Jiangsu, and Shenzhen, and invested in the construction of an intelligent and digital production base in Tianjin. To build a high level of technical strength and product quality, BWT set up a German subsidiary in 2020, introducing European quality standards, and taking a solid step for the internationalization of R&D, production and technological innovation.



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功率 Power	500W
波长范围 Wavelength	450±10 nm
输出光纤芯径 Output fiber core diameter	330µm/400µm
光缆长度 Cable Length	10m 或定制/10m or Customized
输出连接器 Beam Delivery	QBH 或定制/QBH or Customized
指示光 Guide Beam	红色/Red
工作模式 Operation Mode	连续或调制/Continuous or Modulated
偏振方向 Polarization	随机/Random
输出功率稳定度 (25°C) Power Stability	< ±1.5% (2h)
功率调节范围 Power Adjustment Scope	10%-100%
最大调制频率 Max. Modulation Frequency	5kHz
机械尺寸及重量	
重量 Weight	<80Kg
外形尺寸 Outline Feature	420mm*590mm*900mm
电学特性	
电压 Voltage	三相(three Phase),380±20V,AC,PE,50/60Hz
功耗 Power Consumption	2.5 kW
控制方式 Control Interface	RS232
水冷参数	
制冷量需求 Mini. Water Cooling Capacity	2.0 kW
设置温度 Temperature Settings	25°C (激光模块,Laser Module) ,30°C (QBH)
水管尺寸 (内径) Cooling Tubes Size(Inner)	19mm
冷却水流量 Cooling Water Flux	>15 L/min
QBH 冷却水流量 QBH Cooling Water Flux	2.0L/min

Note: The return light will affect the performance and life of the direct semiconductor laser, so it is necessary to use the output laser 8° - 10° away from the vertical direction of the worktable.



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Package Dimensions (mm)

