

Direct Diode Laser System

Tentative 普通

DL0465050001 VT1

465nm 500W Fiber coupled Diode Laser System



Features

- ◇ 465nm Wavelength
- ◇ 0.18NA
- ◇ Laser Stability Controlled
- ◇ CW and Modulated Pulse Modes
- ◇ Wall-plug efficiency > 35%

Applications

- ◇ Copper Welding
- ◇ Aluminum Welding
- ◇ Precision Welding
- ◇ 3D Printing
- ◇ Additive Manufacturing

Turning Point Lasers (TPL), a pioneering optoelectronics company based in Taiwan, has made significant strides in the field of laser technology with the blue laser system. This system is notable for its 465nm emission, making it a robust tool for industrial applications. The high wall-plug efficiency nearing 35% is a testament to the advanced technology employed by TPL, which relies on highly reliable, entirely sealed high-efficiency single-emitter diodes. These blue lasers are versatile and find applications in processes such as soldering, metal hardening, welding, and additive manufacturing. The innovation and reliability of TPL's blue laser systems underscore their commitment to providing solutions that meet the evolving needs of modern industry.

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TPL

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Optical Characteristics

Optical Characteristics	UNIT	BDL465-500
Wavelength	nm	465
Bandwidth	nm	10
Mode of Operation		CW/Modulated
Modulation Frequency	kHz	0-5
Average Power	W	500
Power Tunability	%	10-100
Output Fiber Core Diameter	μm	110
Power Stability	%	*<2

*Over 8 hours, T= ±1°C

General Characteristics

General Characteristics	UNIT	BDL465-500
Fiber Termination	Type	QBH-type connector
Delivery Fiber Length	m	8
Cabinet Dimensions(W x D x H)	mm	482 x 500 x 123.5 (not include handle)
Weight	Kg	25
Joint Diameter	mm	25
Cooling	Type	Water Cooling
Power Supply		220V AC single-phase, 50 / 60 Hz
Power Consumption	W	<1500

Environmental Characteristics

Environmental Requirements	UNIT	BDL465-500
Water Cooling Temp.	°C	25
Water Cooling Flow	L/min	8~10 (Laser) Water pipe, OD:12mm 1.5 ~2.5 (QBH) Water pipe, OD:06mm
Water Cooling Pressure	Bar	4
Operation Temp.	°C	10-40
Humidity	%	10-80

OPERATING NOTES

- Avoid eye and skin exposure to direct radiation during operation.
- Make sure the fiber output end is properly cleaned before operation of laser.
- Specifications are subject to change without note

