

Diode Laser System

DS3-41624-LD



Features:

- 445nm wavelength
- 250W output power
- 105µm fiber core diameter
- 0.22 NA

Applications:

- Material Processing
- 3D Printing
- Welding

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 automated and intelligent production base in Tianjin. To build a high level of technical strength and product quality, BWT set up a German subsidiary in 2020, and taking a solid step for the internationalization of R&D, production and technological innovation.



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Specifications (25°C)		Unit	DS3-41624-LD
Optical Data ⁽¹⁾	CW Output Power	W	200-250
	Center Wavelength	nm	445±20
	Spectral Width(FWHM)	nm	≤20
	Wavelength Shift with Temperature	nm/°C	<0.2
	Output power instability	%	±3 (5 hours)
	Power Range	%	10-100
Fiber Data	Core Diameter	μm	105
	Numeric aperture	-	0.22
	Fiber length	m	5/ Customized
	Fiber termination	-	HP-SMA905/Customized
Electrical Data	Power supply	V	100~240 (50-60Hz)
	Power consumption	W	<1200
	Drive mode	-	Constant current
	Emission mode	-	CW or Modulated
	Control mode	-	RS232, I/O
	Modulation Frequency	Hz	1~20k
	Modulation Duty Cycle	-	5%-95%(Minimum pulse width 20us)
	Modulation Rise/Fall Time (Min. Value)	μs	≤10
Mechanical parameters	Dimensions (L×W×H)	mm	429*482*130
	Weight	kg	<15
Others	Cooling method	-	Water cooling
	Cooling Capacity	W	≥1000
	Cooling Water Temperature ⁽²⁾	°C	25±5
	Water Discharge	L/min	7
	Pipe Diameter(External)	mm	10
	Storage temperature ⁽³⁾	°C	5~50
	Relative Humidity	%	5~80
	Safety class	-	4(EN 60825-01)

⁽¹⁾ Data measured under the operating condition with a power output of 250W at 25°C.

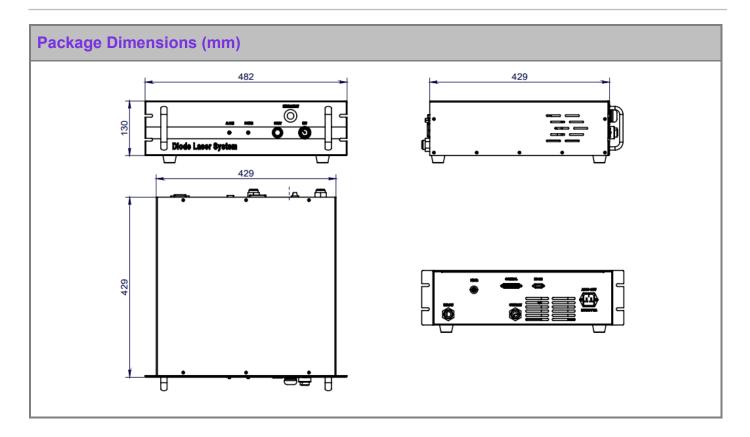
⁽²⁾ Operating temperature defined by the package case. Acceptable operating range is $20^{\circ}\text{C}\sim30^{\circ}\text{C}$, but performance may vary.

⁽³⁾ A non-condensing environment is required for operation and storage.



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OPERATING NOTES

- ♦ Avoid eye and skin exposure to direct radiation during operation.
- ESD precautions must be taken during storage, transportation and operation.
- ♦ Laser diode must work with good cooling.
- ◆ Operation temperature ranges from 20°C to 30°C.
- ♦ Storage temperature ranges from -20°C to +70°C.



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