

445nm 250W Blue 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

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.

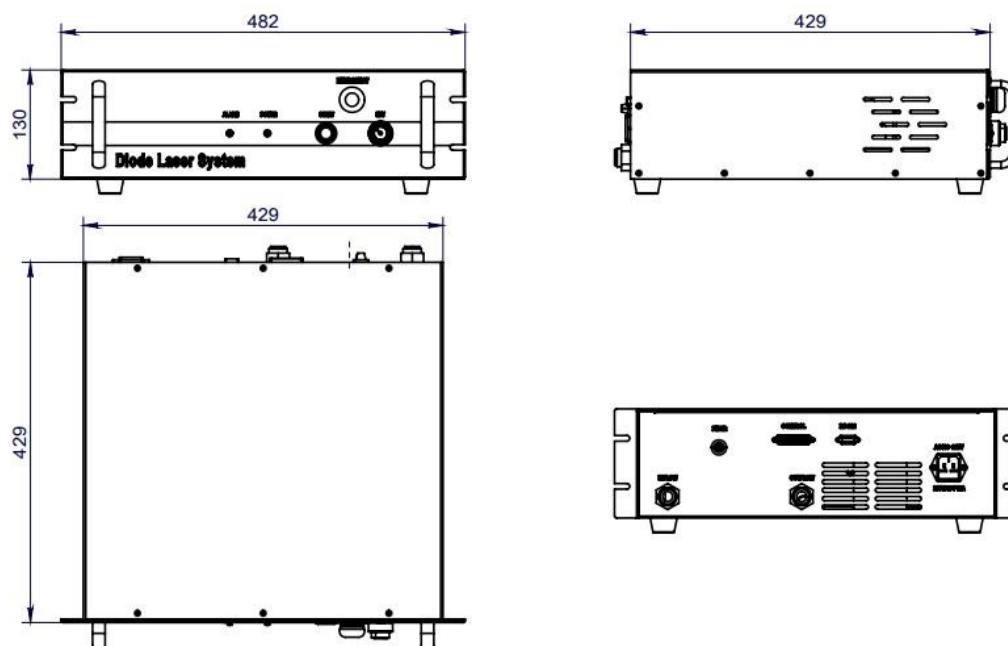
(2) Operating temperature defined by the package case. Acceptable operating range is 20°C~30°C, but performance may vary.

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

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Package Dimensions (mm)



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. Follow safety protocols to avoid injury when handling and cutting the fiber.
- Laser diode must be used according to the specifications.
- Temperature Ambient in Operation ranges from 20°C to 30°C.
- Storage temperature ranges from -20°C to +70°C.