

PLD-212-975-WS: 975 nm 98 W

Wavelength-stabilized Diode Laser



Applications

- ▶ Fiber Laser Pumping



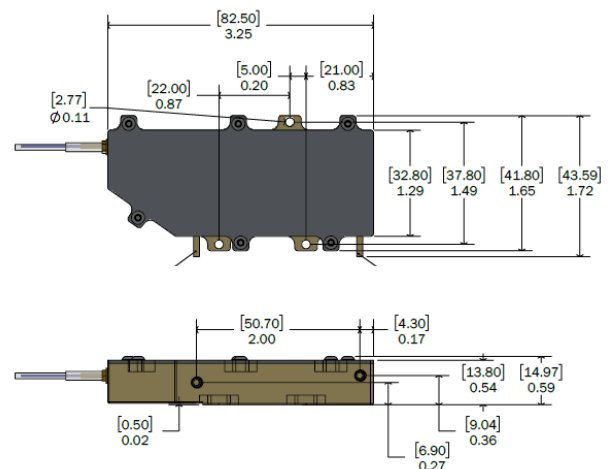
Features

- ▶ 975 nm center wavelength
- ▶ Tight +/-1.0 nm wavelength control
- ▶ 98 W maximum output power at 12 Amperes
- ▶ Compact fiber-coupled package
- ▶ Minimal cooling requirements



IPG Photonics' line of wavelength-stabilized fiber-coupled diode lasers utilize IPG's own volume Bragg grating components to provide unmatched performance from a compact, single-emitter diode footprint featuring high reliability and minimal cooling requirements. The PLD-212-975-WS provides a high brightness 98 W fiber-coupled power out of a 110 μm diameter core.

At IPG, we manufacture to rigorous telecom-grade standards in the world's largest high power diode fab. Each die is individually qualified, which sets IPG apart from alternative industrial pump products using short-lived diode bars and bar-stack technologies.



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Wavelength-stabilized Diode Laser

Optical and Electrical Characteristics*

Center Wavelength, nm	975
Center Wavelength Tolerance, nm	±1
Output Power, W	98
Wavelength Shift with Current, nm/A	<0.03
Power Shift with Current, W/A	<7
Power in Band, %	>95
Threshold Current (I_{TH}), A	1
Operating Current (I_{OP}), A	12
Forward Voltage, V	<13.5
Recommended Case Temperature, °C	25

* Typical performance data measured at 12 A, 25°C.

Fiber Characteristics

Fiber Core Diameter, μm	110
Fiber Cladding Diameter, μm	125
Fiber Buffer Diameter, μm	250
Beam Numerical Aperture (90% power)	<0.18
Fiber Length, m	1.9
Minimum Fiber Bend Radius, mm	30

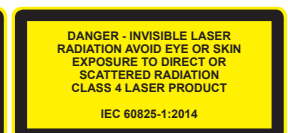
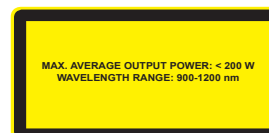
Maximum Ratings

Operating Current (I_{OP}), A	14
Reverse Voltage, V	2.5
Case Temperature, °C	5 - 70
Storage Temperature, °C	-20 to 60
Lead Soldering Temperature (10 s max) °C	300
Relative Humidity, %	85

+1 (508) 373-1100; sales.us@ipgphotonics.com
 +49 2736 44200; sales.europe@ipgphotonics.com (European Inquiries)

www.ipgphotonics.com

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