



# PLD-70 Series: 915-975 nm, 60 W

## Multi-mode Fiber-coupled Diode Lasers

### Applications

- ▶ Amplifier Pumping
- ▶ Laser Pumping
- ▶ Graphic Arts / Printing
- ▶ Illumination
- ▶ Direct Diode Lasers
- ▶ Material Processing
- ▶ Medical & Dental
- ▶ Photovoltaics

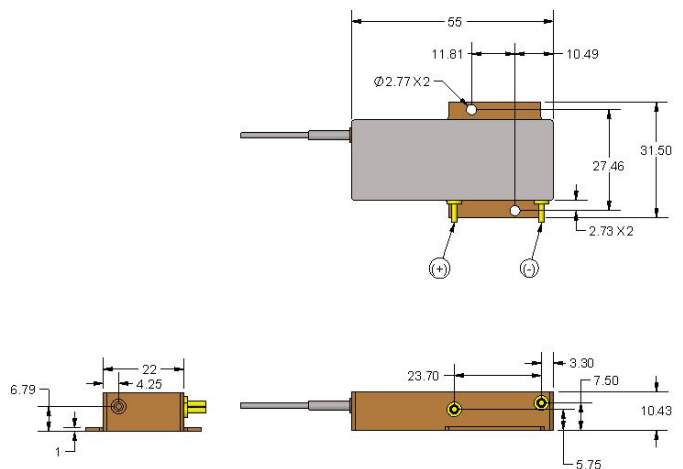


### Features

- ▶ 915, 940, 975 nm Center Wavelengths
- ▶ 60 W Output Power
- ▶ High Reliability
- ▶ Robust Compact Package
- ▶ Wavelength Stabilization and Dichroic Options at 975 nm
- ▶ 0.13 NA into 105 or 110  $\mu\text{m}$  Fiber Core Diameter

IPG Photonics' PLD-70 Series fiber-coupled diode lasers provide up to 60 W of output power within 0.13 NA. PLD-70 diode options include 105  $\mu\text{m}$  or 110  $\mu\text{m}$  fiber core diameter, and center wavelength at 915 nm, 940 nm or 975 nm. Wavelength stabilization and dichroic options are also available at 975 nm.

IPG's best-in-class diode technology offers an ideal combination of power, reliability and form factor. We manufacture to rigorous telecom-grade standards in the world's largest high power diode fab. Each wafer is individually qualified, which sets IPG apart from alternative industrial pump products using short-lived diode bars and bar-stack technologies. PLD-70 diode lasers are preferred for fiber amplifier and laser pumping, material processing, and direct diode applications.



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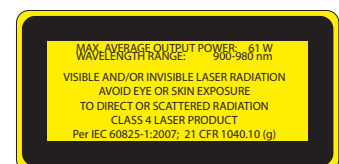
Optical Characteristics <sup>1</sup>	PLD-70	PLD-975-70-WS
Center Wavelength, nm	915, 940, 975	975
Center Wavelength Tolerance, nm	± 3	± 0.5
Output Power, W	61	57
Spectral Width (FWHM), nm	5	
Slope Efficiency, W/A	5	4.7
Conversion Efficiency, %	53	49
Threshold Current ( $I_{TH}$ ), A	0.7	
Operating Current ( $I_{OP}$ ), A	12	
Forward Voltage, V	9.57	
Recommended Case Temperature, °C	25	
Wavelength Shift with Temperature, nm/°C	0.35	< 0.01
Wavelength Shift with Operating Current, nm/A	< 1.2	< 0.1

<sup>1</sup>Typical performance data measured at 12A, 25°C.

Fiber Characteristics	
Fiber Core Diameter, $\mu\text{m}$	105 or 110 options available
Fiber Cladding Diameter, $\mu\text{m}$	125
Fiber Buffer Diameter, $\mu\text{m}$	250
Beam Numerical Aperture (90% power)	0.13
Fiber Length, m	0.75 - 1.2
Minimum Fiber Bend Radius, mm	30

Maximum Ratings	
Operating Current ( $I_{OP}$ ), A	12
Reverse Voltage, V	2.5
Case Temperature, °C	5 to 70
Storage Temperature, °C	-30 to 70
Lead Soldering Temperature (10 s max) °C	300
Relative Humidity, %	85

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