



MORE LIGHT

JOLD-100-CPXF-2P W

Fiber-coupled diode lasers: cw, passively cooled with tap water

Design 215533224 | 215535324

Features

- High optical output power up to 100 W cw
- Wavelengths: 808, 880, 915, 938 and 976 nm
- Fiber core diameter: 400 μm | 600 μm (NA 0.22)
- Integrated pilot laser and power monitor
- Long lifetime > 20,000 h, high reliability

Applications

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications

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Specifications (start of life)

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| | | | | | | |
|---|--|--------------------|---|--------------------|--------------------|-----|
| Operation Mode | cw / pulsed | | | | | |
| Maximum Optical Output Power | 100 | 100 | 100 | 100 | 100 | W |
| Center Wavelength at 25 °C | 808 | 880 | 915 | 938 | 976 | nm |
| Center Wavelength Variation at 25 °C | 3 | 3 | 5 | 5 | 3 | nm |
| Typical Spectral Bandwidth (FWHM) | 5 | 5 | 5 | 5 | 5 | nm |
| Maximum Spectral Bandwidth (FWHM) | 6 | 6 | 6 | 6 | 6 | nm |
| Typical Operation Current | 85 | 75 | 70 | 72 | 72 | A |
| Maximum Operation Current | 95 | 85 | 80 | 80 | 80 | A |
| Typical Threshold Current | 19 | 9 | 6 | 6 | 6 | A |
| Maximum Threshold Current | 22 | 12 | 9 | 9 | 9 | A |
| Typical Slope | 1.5 | 1.5 | 1.55 | 1.5 | 1.5 | W/A |
| Minimum Slope | 1.3 | 1.3 | 1.35 | 1.35 | 1.35 | W/A |
| Maximum Operating Voltage | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | V |
| Fiber Core Diameter, Numerical Aperture | 600 µm, NA 0.22 | 400 µm, NA 0.22 | 400 µm, NA 0.22 | 400 µm, NA 0.22 | 400 µm, NA 0.22 | |
| Fiber Connector | HP-SMA 905, both ends free standing | | | | | |
| Power Monitor | Infineon, SFH 229 | | | | | |
| Pilot Laser | 0.5 ... 3 mW, 650 nm ± 15 nm, 3 ... 5 V, 40 ± 15 mA, power not adjustable (only for teaching and targeting purposes before laser operation) | | | | | |
| Anode, Cathode Connectors | M8, M6 (e.g. socket cap screws ISO 4762) | | | | | |
| Signal Connector | D-Sub, male, 15 pin | | | | | |
| Operation Conditions | Non-condensing atmosphere | | | | | |
| Expected Lifetime | > 10,000 h (constant current), partly under qualification | | > 20,000 h (constant current), partly under qualification | | | |
| Cooling | | | | | | |
| Flow Rate | > 3 l/min | | | | | |
| Water Temperature | 8 ... 20 °C | | | | | |
| Water Pressure | 400 kPa maximum inlet and outlet pressure, < 80 kPa pressure drop | | | | | |
| Water Connectors | Ø 6 mm (OD) push-in fittings | | | | | |
| Water Quality | Industrial water, unfiltered up to a particle size of 0.5 mm | | | | | |
| Diode Laser Operating Temperature | 15 ... 35°C, measured with internal temperature sensor | | | | | |
| Integrated Temperature Sensor | PT 100 and PT 1000, separately for each diode laser | | | | | |
| Note | Specify exact wavelength needed with your order | | | | | |

See general user information!

Options on request: For additional designs or specifications please visit our website: www.jenoptik.com

