



MORE LIGHT

JOLD-140-CAXF-6A

Fiber-coupled diode laser stacks: cw, actively cooled with deionized water

Design 211615226

Features

- High optical output power of 140 W cw
- Wavelengths: 807, 915, 938 and 976 nm
- Fiber core diameter: 600 μm (NA 0.22)
- Integrated pilot laser and power monitor
- Lifetime > 10,000 h, high reliability

Applications

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

Fiber-coupled diode laser stacks | cw, actively cooled with deionized water

JOLD-140-CAXF-6A

Specifications (start of life)

JOLD-140-CAXF-6A Design 211615226

| | | | | | |
|---|---|-----|-----|-----|-----|
| Operation Mode | cw, power modulation only between threshold and maximum current | | | | |
| Maximum Optical Output Power | 140 | 140 | 140 | 140 | W |
| Center Wavelength at 25 °C | 807 | 915 | 938 | 976 | nm |
| Center Wavelength Variation at 25 °C | 3 | 5 | 5 | 3 | nm |
| Typical Spectral Bandwidth (FWHM) | 4 | 4 | 4 | 4 | nm |
| Maximum Spectral Bandwidth (FWHM) | 5 | 5 | 5 | 5 | nm |
| Typical Operation Current | 40 | 42 | 42 | 44 | A |
| Maximum Operation Current | 45 | 47 | 47 | 47 | A |
| Typical Threshold Current | 7 | 6 | 6 | 6 | A |
| Maximum Threshold Current | 10 | 7 | 9 | 9 | A |
| Typical Slope | 4.3 | 3.9 | 3.9 | 3.7 | W/A |
| Minimum Slope | 3.6 | 3.4 | 3.4 | 3.4 | W/A |
| Maximum Operating Voltage | 13 | 13 | 13 | 13 | V |
| Fiber Core Diameter, Numerical Aperture | 600 µm, NA 0.22 | | | | |
| Fiber Connection | High-power plug with 10 mm ferrule diameter | | | | |
| 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 | Plug KST6AR-N/10 (Part No. 15.0001-22), Socket KBT6AR-N/10-S (Part No. 15.0017-21); Ref.: www.multi-contact-usa.com | | | | |
| Humidity Reduction | Purge gas, water vapor outlet closed with membrane | | | | |
| Purge Gas | Synthetic air, purity > 99.9997 %, flow rate 0.1 ... 0.5 l/h (10 ... 20 mbar pressure), Ref.: www.airliquide.com | | | | |
| Purge Gas Connector | Ø 4 mm push-in fitting | | | | |
| Expected Lifetime | > 10,000 h (constant current) | | | | |
| Cooling | | | | | |
| Flow Rate | 2.3 l/min ± 0.2 l/min | | | | |
| Water Temperature | 15 ... 35 °C | | | | |
| Water Pressure | 400 kPa maximum inlet and outlet pressure, 150 ... 250 kPa pressure drop | | | | |
| Water Connectors | Ø 8 mm push-in fittings | | | | |
| Water Quality | Deionized 2 ... 6 µS/cm, mixed bed ion exchanger, particle filter < 25 µm (not included) | | | | |

See general user information!

Options on request: Including dry cartridge instead of water vapour outlet

