

9xxnm, 400µm, Conduction-Cooled, Fiber-Coupled, Multi-Bar Module

Features

- Conduction-cooled diode laser bars inside
- Single wavelength
- High coupling efficiency
- Scalable output power
- Industrial water cooling

Optional Accessories

- Integrated pointer laser and power meter
- Integrated NTC temperature sensor
- Fiber detection sensor



Device Specification

| Optical Parameters ¹ | Units | | | |
|--------------------------------------|-------|-----|-------|-----|
| Center Wavelength Range ³ | nm | | 9xx | |
| Center Wavelength Tolerance | nm | | ±3 | |
| Output Power ² | W | 300 | 400 | 500 |
| Spectral Width (FWHM) | nm | | <4 | |
| Slope Efficiency | W/A | >7 | >8 | >10 |
| Wavelength Temp. Coefficient | nm/°C | | ~0.34 | |

| Fiber Parameters | | |
|---------------------|----|-------------|
| Numerical Aperture | NA | 0.22 |
| Fiber Core Diameter | µm | 400 |
| Fiber Connector | | QBH/HighYAG |

| Electrical Parameters ¹ | | | | |
|--------------------------------------|---|-----|------|-----|
| Power Conversion Efficiency | % | | >45 | |
| Threshold Current (I _{TH}) | A | | <7.5 | |
| Operating Current (I _{OP}) | A | | <60 | |
| Operating Voltage (V _{OP}) | V | <16 | <20 | <24 |

| Thermal Parameters | | | | |
|---------------------------------------------------------------|-----|------|------------|------|
| Operating Temperature ^{2, 3, 4} (Cooling Plate) | °C | | +20 to +25 | |
| Operating Temperature ^{2, 3, 4} (Diode Laser Module) | °C | | +30 to +35 | |
| Storage Temperature ^{3, 4} | °C | | 0 to +55 | |
| Coolant Flow Rate | l/h | | 250 to 400 | |
| Operating Water Temperature | °C | | +20 to +25 | |
| Maximum Particle Size | µm | | <10 | |
| Recommended Cooling Capacity | W | >660 | >800 | >940 |

¹Data at 20°C cold plate temperature, unless otherwise stated.

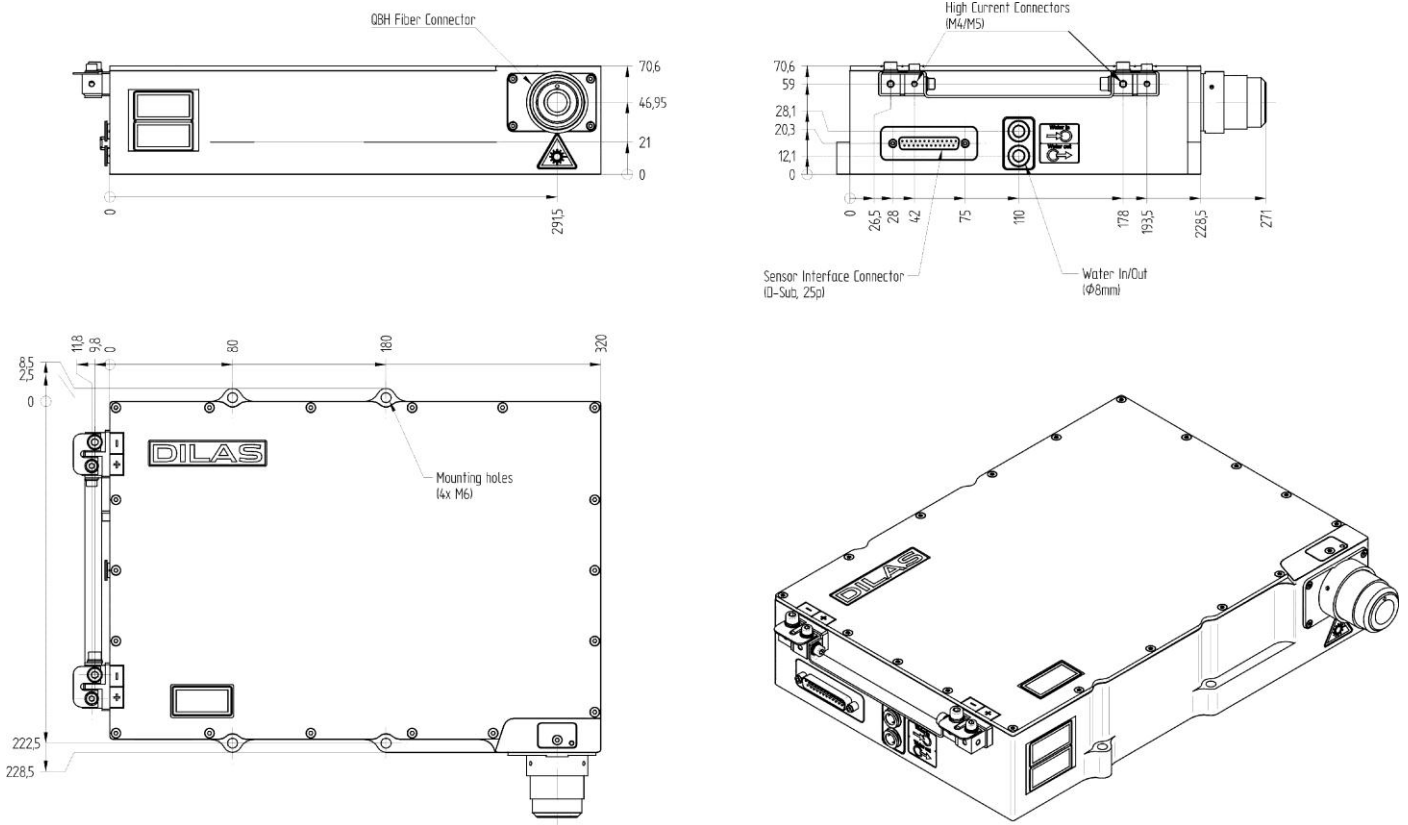
²Reduced lifetime if used above nominal operating conditions.

³Others available upon request.

⁴A non-condensing environment is required for storage and operation below the ambient dew point.

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Package Dimension



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