

## 3λ, Conduction-Cooled, Fiber-Coupled, Multi-Bar Module

### Features

- Conduction cooled diode laser bars
- Multiple wavelengths
- High coupling efficiency

### Optional Accessories

- Power meter
- NTC temperature sensor
- Pilot beam



### Device Specification

| Optical Parameters <sup>1</sup>      | Units | Bar 1 | Bar 2 | Bar 3 | Combined |
|--------------------------------------|-------|-------|-------|-------|----------|
| Center Wavelength Range <sup>3</sup> | nm    | 1470  | 1520  | 1550  | Multiple |
| Center Wavelength Tolerance          | nm    | ±20   | ±20   | ±20   | -        |
| Output Power <sup>2</sup>            | W     | 12    | 12    | 12    | 36       |
| Spectral Width (FWHM)                | nm    | <12   | <12   | <12   | -        |
| Slope Efficiency                     | W/A   | >0.3  | >0.3  | >0.3  | >0.9     |
| Wavelength Temp. Coefficient         | nm/°C | ~0.6  | ~0.6  | ~0.6  | -        |

| Fiber Parameters   | Units |                                          |
|--------------------|-------|------------------------------------------|
| Numerical Aperture | NA    | 0.22                                     |
| Fiber Core         | μm    | 400                                      |
| Fiber Connector    |       | HP-SMA 905 with Free Standing Fiber Tips |

| Electrical Parameters <sup>1</sup> |   |      |      |      |     |
|------------------------------------|---|------|------|------|-----|
| Power Conversion Efficiency        | % | >20  | >20  | >20  | >20 |
| Threshold Current ( $I_{TH}$ )     | A | <11  | <11  | <11  | <11 |
| Operating Current ( $I_{OP}$ )     | A | <70  | <65  | <65  | <70 |
| Operating Voltage ( $V_{OP}$ )     | V | <1.4 | <1.4 | <1.4 | <5  |

| Thermal Parameters                                            |     |     |     |            |      |
|---------------------------------------------------------------|-----|-----|-----|------------|------|
| Operating Temperature <sup>2, 3, 4</sup> (Cooling Plate)      | °C  |     |     | +20 to +25 |      |
| Operating Temperature <sup>2, 3, 4</sup> (Diode Laser Module) | °C  |     |     | +30 to +35 |      |
| Storage Temperature <sup>3, 4</sup>                           | °C  |     |     | 0 to +55   |      |
| Coolant Flow Rate                                             | L/h |     |     | 200 to 300 |      |
| Maximum Particle Size                                         | μm  |     |     | <10        |      |
| Operating Water Temperature                                   | °C  |     |     | +20 to +25 |      |
| Recommended Cooling Capacity                                  | W   | >90 | >90 | >90        | >270 |

<sup>1</sup>Data at 25°C cold plate temperature, unless otherwise stated.

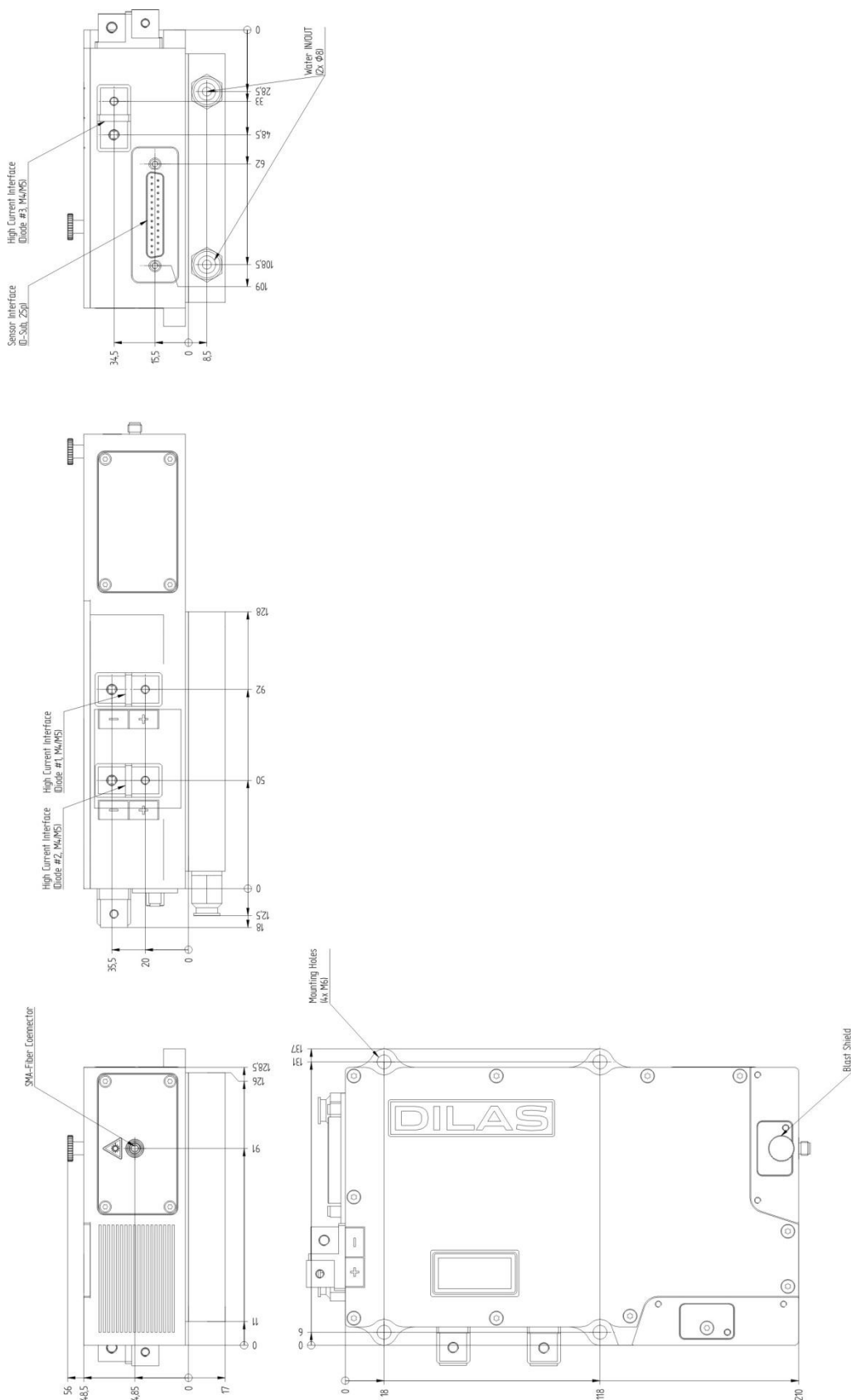
<sup>2</sup>Reduced lifetime if used above nominal operating conditions.

<sup>3</sup>Others available upon request.

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

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## Package Dimension



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