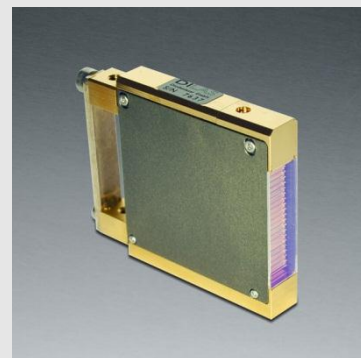


# 780nm, Water-Cooled, Vertical Diode Laser Stack

## Features

- Uniform divergence
- Low thermal resistance CW operation
- Customized geometries and housings available
- Optional standard coatings or customized low AR coatings are available
- Optional FAC/SAC are available
- Optional Volume Bragg Grating are available (to ensure that very little pump energy is wasted)



## Device Specification

Optical Parameters <sup>1</sup>	Units	
Center Wavelength Range <sup>3</sup>	nm	780
Center Wavelength Tolerance <sup>3</sup>	nm	±3
Output Power per Bar <sup>2</sup>	W	50
Number of Bars <sup>3</sup>	#	20
Bar-to-Bar Spacing <sup>3</sup>	mm	Approx. 1.8
Spectral Width (FWHM) <sup>6</sup>	nm	<5
Slope Efficiency per Bar	W/A	>1.25
Fast-Axis Divergence <sup>4</sup> (90%)	degrees	<60
Slow-Axis Divergence (95%)	degrees	<8

Electrical Parameters <sup>1</sup>		
Power Conversion Efficiency	%	>58
Threshold Current ( $I_{TH}$ )	A	<7.5
Operating Current ( $I_{OP}$ )	A	≤50
Operating Voltage per Bar ( $V_{OP}$ )	V	<1.9

Thermal Parameters		
Operating Temperature Range <sup>3, 5</sup>	°C	+20 to 30
Storage Temperature Range <sup>5</sup>	°C	0 to 55

**Please refer to DILAS water specification for cooling requirements.**

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

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

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

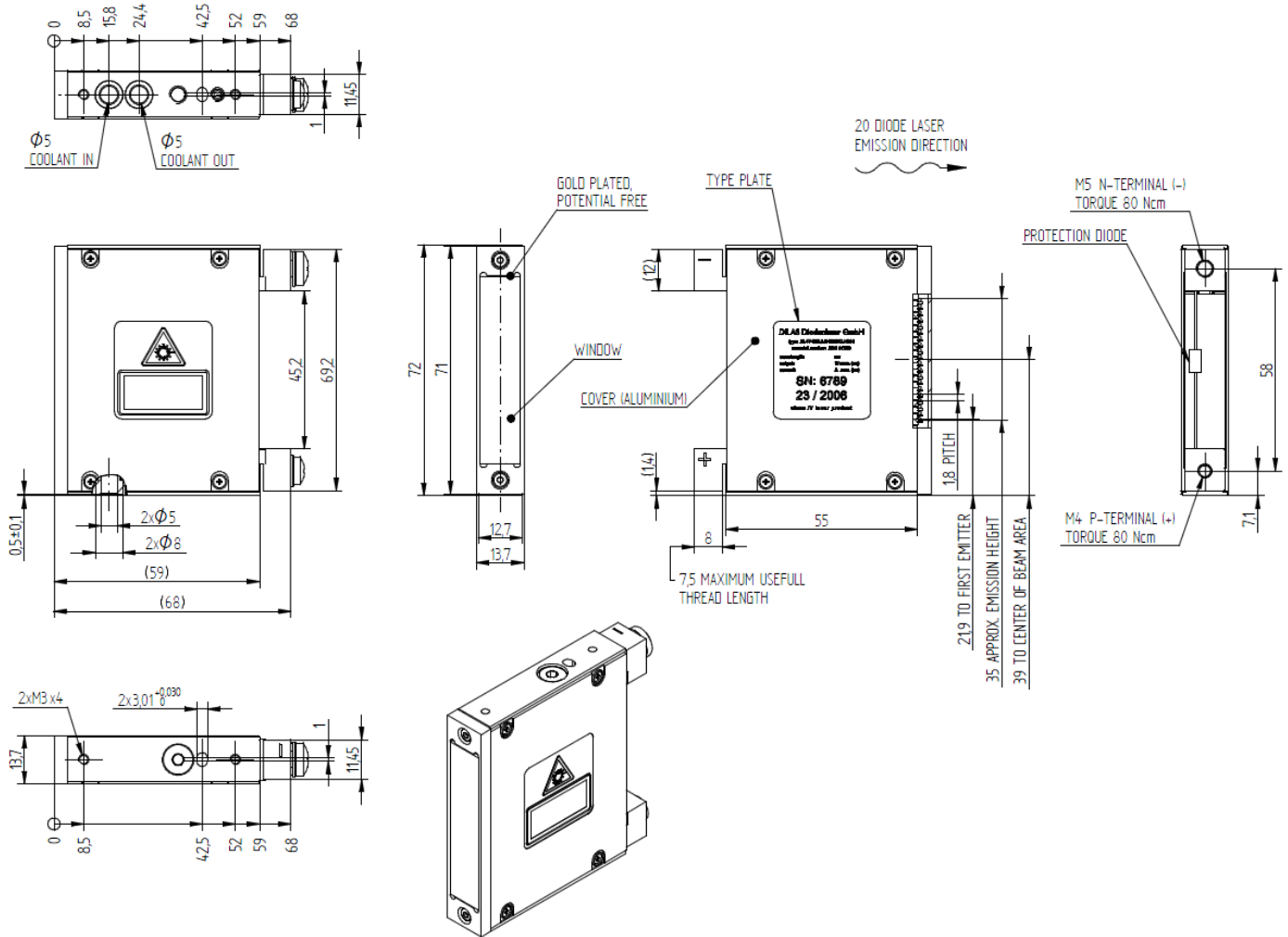
<sup>4</sup>For fast-axis collimation using FAC lens: divergence <8mrad.

<sup>5</sup>A non-condensing environment is required for storage and operation below the ambient dew point.

<sup>6</sup>With volume Bragg gratings, spectral line narrowing will result in ≤1nm FWHM per bar.

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## Package Dimension



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For complete details, please contact your local DILAS sales representative or visit our website at [www.DILAS.com](http://www.DILAS.com).

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