

# 808nm, Water-Cooled, Housed Vertical Stacks

## Features

- Low thermal resistance
- Available as non-collimated or fast axis collimated unit
- Dust protected housings or, hermetically sealed housings are available
- Up to 70 bars vertically stacked
- CW and QCW operation



## Device Specification

Optical Parameters <sup>1</sup>	Units			QCW	QCW
Center Wavelength Range <sup>3</sup>	nm			808	
Center Wavelength Tolerance <sup>3</sup>	nm			±3	
Output Power per Bar <sup>2</sup>	W	50	80	150 <sup>4</sup>	250 <sup>4</sup>
Number of Bars <sup>3</sup>	#			1 to 70	
Bar-to-Bar Spacing <sup>3</sup>	mm			approx. 1.9	
Spectral Width (FWHM)	nm	<3	<3	<6	<6
Slope Efficiency per Bar	W/A	>1.14	>1.14	>1.2	>1.2
Fast-Axis Divergence (90%) <sup>5</sup>	degree	<70	<70	65	65
Slow-Axis Divergence (90%) <sup>6</sup>	degree	8	8	12	12
Wavelength Temp. Coefficient	nm/°C			~0.27	
Beam Geometry after FAC Lens (n=number of bars)				10mm x 0.8mm	
Electrical Parameters <sup>1</sup>					
Power Conversion Efficiency	%	>46	>48	>55	>58
Threshold Current (I <sub>TH</sub> )	A	<16	<16	<20	<30
Operating Current (I <sub>OP</sub> )	A	<55	<90	150	230
Operating Voltage per Bar (V <sub>OP</sub> )	V	<1.8	<1.8	<1.8	<1.9
Thermal Parameters					
Operating Temperature Range <sup>3</sup>	°C			+20 to 30	
Storage Temperature Range	°C			0 to 55	

Please refer to DILAS water specification for cooling requirements.

<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>QCW operation please contact DILAS.

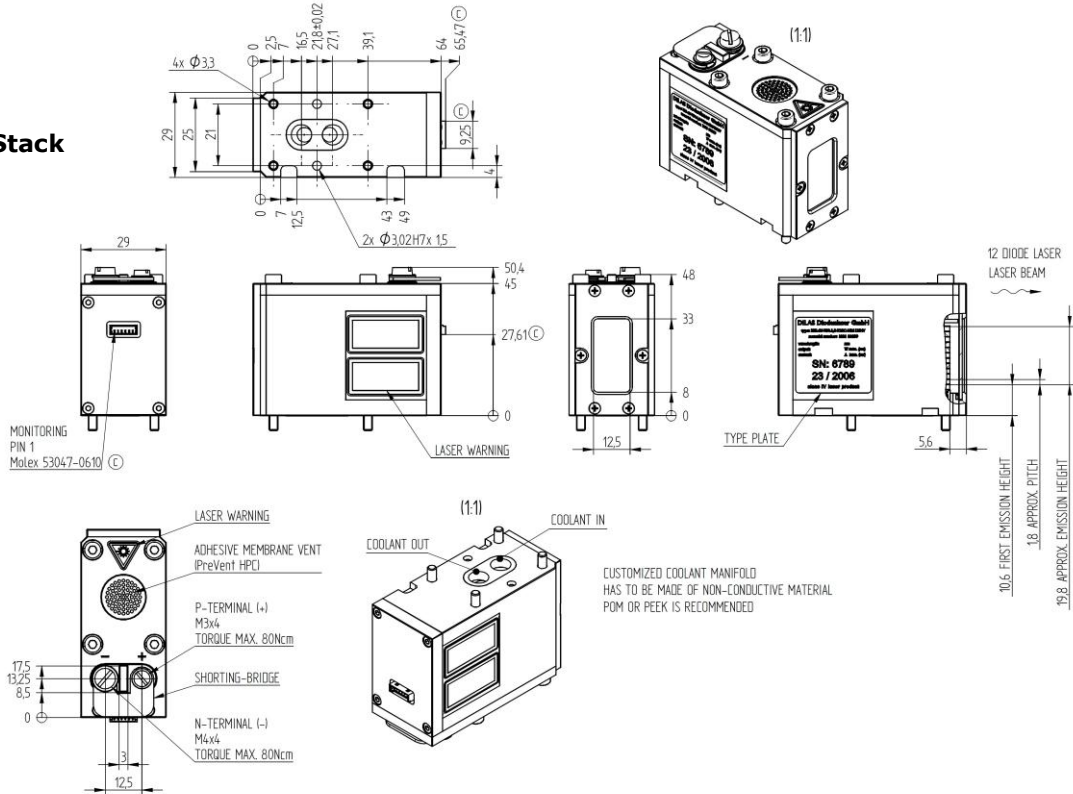
<sup>5</sup>For fast-axis collimation using FAC lens: divergence <8mrad.

<sup>6</sup>Slow-axis lense arrays available upon request.

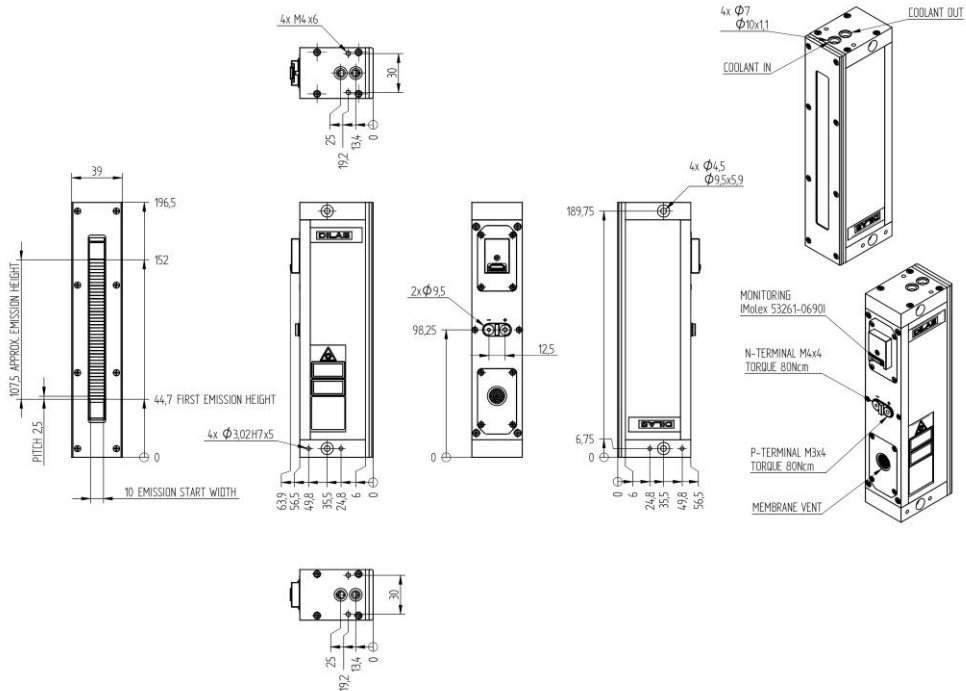
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## Package Dimension

### 12-Bar Stack



### 44-Bar Stack



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