

Vertical Homogenizer, Water-Cooled Diode Laser Stack

Features

- Homogenized laser beam
- Water-cooled diode laser bars inside
- Single wavelength
- Scalable output power
- Water cooling using de-ionized water
- Sealed housing

Optional Accessories

- Integrated NTC temperature sensor
- Integrated humidity sensor
- Cooling water manifold



Device Specification

Optical Parameters ¹		Units	
Center Wavelength Range ⁷		nm	808
Center Wavelength Tolerance		nm	±5
Output Power ²		W	950
Number of Bars ⁷		#	12
Spectral Width (FWHM)		nm	<4
Beam Size ³	Length	mm	<13
	Width	mm	<13
Slope Efficiency		W/A	>10
Wavelength Temp. Coefficient		nm/°C	~0.27
Homogeneity ⁵		%	>90
Electrical Parameters ¹			
Power Conversion Efficiency		%	>50
Threshold Current (I _{TH})		A	<16
Operating Current (I _{OP})		A	<100
Operating Voltage (U _{OP}) [U _{OD} <1.8V per bar]		V	<22
Duty Cycle (D.C.)		%	<30
Thermal Parameters			
Operating Temperature Range ⁴		°C	+ 20 to 30
Storage Temperature Range ⁴		°C	0 to 55
Transportation Temperature		°C	- 20 + 55
Coolant Flow Rate		l/h	180 - 200
Water Temperature		°C	+ 20 + 25
Purity			De-ionized water ⁶
Mechanical Parameters			
Dimensions			Refer to overleaf dimensional drawing
Weight		kg	<1

¹Data at 25°C cold plate temperature, unless otherwise stated.

²Reduced lifetime if used above nominal operating conditions.

³Length is based on 90% power included; width is based on 90% power included.

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

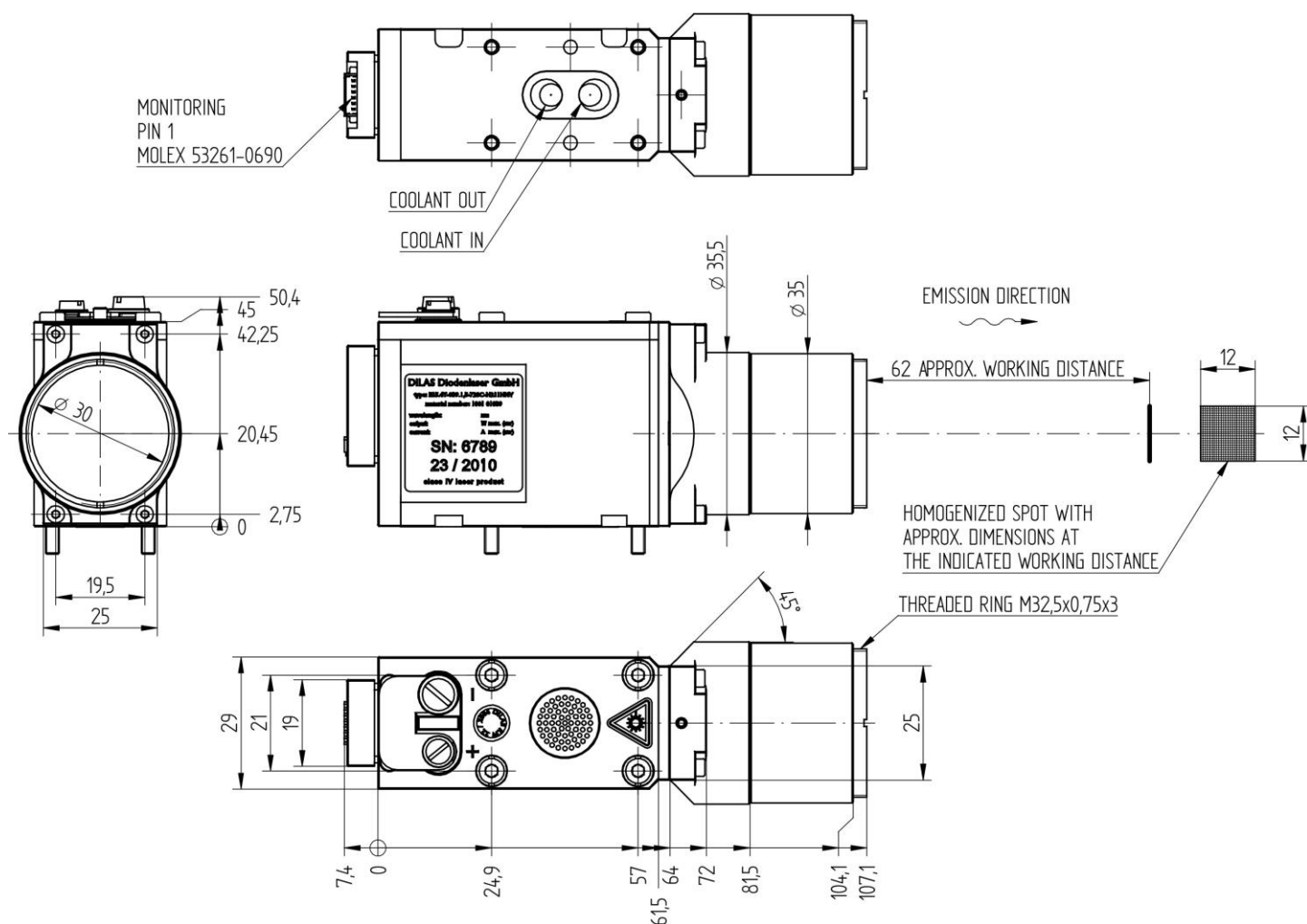
⁵Defined as $1 - (I_{\text{max}} - I_{\text{min}}) / (I_{\text{max}} + I_{\text{min}})$ within the line length.

⁶Please refer to DILAS water specification for cooling requirements.

⁷Others available upon request.

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Package Dimension



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