

# Micro-Channel Water Cooled Vertical Stack Diode Laser VS120 Series



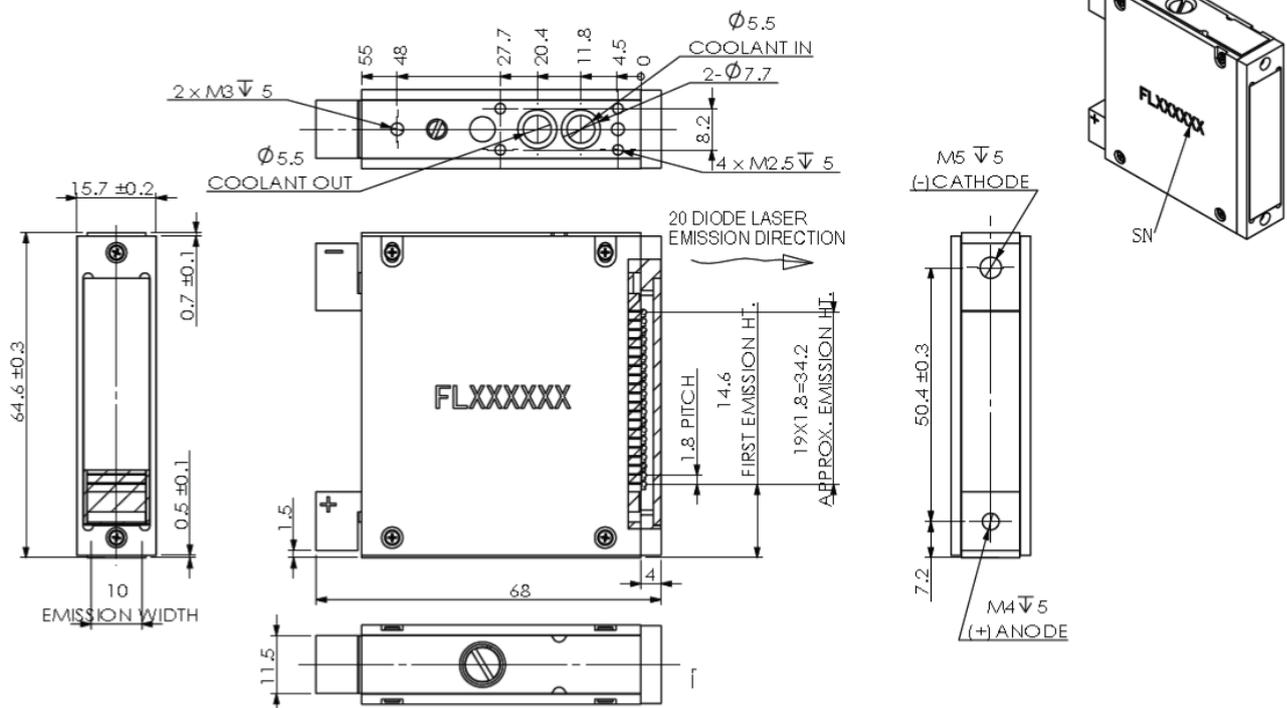
## Features

- Long lifetime
- Low smile
- High power
- Narrow spectrum

## Applications

- Pumping
- Medical
- Scientific research

## Product Dimensions (mm)



**Remark:** The structure drawing is for reference only (20Bars). Please feel free to contact us for any special requirements.

## Product Specifications

Product Code	(Typical Customizations)			
Part No. <sup>1</sup>	FL-VS120-6X1- 600-808-Y	FL-VS120-10X1- 1200-940-Y	FL-VS120-15X1- 7500-808-Y	FL-VS120-15X1- 7500-940-Y

General Data	Unit	Value			
Operation Mode	-	CW	CW	QCW	QCW

Optical Data <sup>2</sup>					
Centroid Wavelength	nm	808	940	808	940
Wavelength Tolerance	nm	± 3	± 5	± 3	± 5
Output Power per Bar	W	100	120	500	500
Number of Bars <sup>3</sup>	-	6	10	15	15
Spectral Width FWHM	nm	≤ 3	≤ 3	≤ 4	≤ 5
Spectral Width 90% Energy	nm	≤ 6	≤ 6	≤ 6	≤ 8
Pulse Width	µs	NA	NA	200	600
Duty Cycle	%	NA	NA	≤ 8	≤ 8
Fast Axis Divergence (FWHM)	°	< 0.5	< 0.5	< 0.5	< 0.5
Slow Axis Divergence (FWHM)	°	8 (typical)	10 (typical)	8 (typical)	10 (typical)
Polarization Mode	-	TE	TE	TE	TE
Wavelength Temp. Coefficient	nm / °C	~ 0.28	~ 0.34	~ 0.28	~ 0.34

Electrical Data					
Operation Current	A	≤ 100	≤ 120	≤ 450	≤ 450
Threshold Current	A	≤ 30	≤ 35	≤ 30	≤ 35
Operating Voltage per Bar	V	≤ 2	≤ 2	≤ 2.2	≤ 2
Slope Efficiency per Bar	W / A	≥ 1.1	≥ 1.1	≥ 1.1	≥ 1.1
Power Conversion Efficiency	%	≥ 50	≥ 55	≥ 50	≥ 55

Thermal Data					
Operating Temperature <sup>4</sup>	°C	20~30	20~30	20~30	20~30
Storage Temperature <sup>5</sup>	°C	0~55	0~55	0~55	0~55

<sup>1</sup> Part No. = Brand Code - Series - Power - Centroid Wavelength(- Collimation).

<sup>2</sup> Data at 25°C temperature, unless otherwise stated.

<sup>3</sup> The multiple bars as optional (2-20Bars).

<sup>4</sup> Reduced lifetime if used above nominal operating conditions.

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

