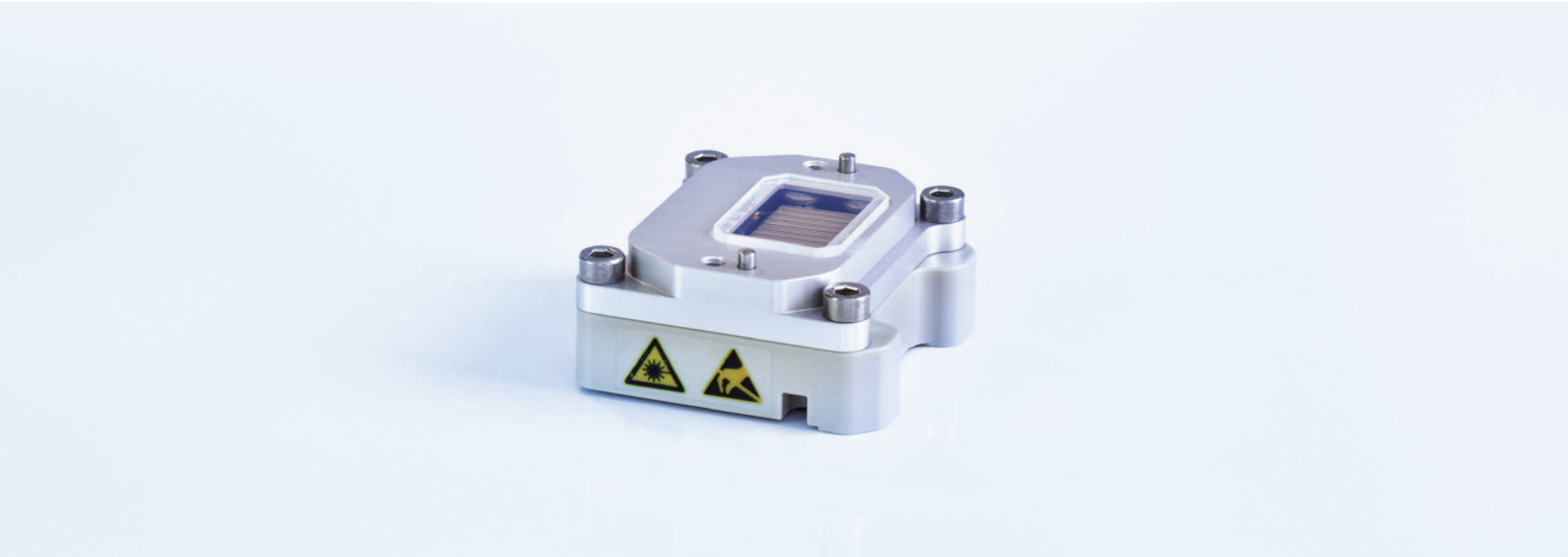
JENOPTIK

Diode Laser Stack in Housing

qcw, passively cooled



JOLD-x-QA-8A

Design 040221-008-24

Features:

- High optical output power up to 2400 W qcw
- Small and robust design, light weight (< 60 g)
- Sealed housing
- Cooling with tap water

Applications:

- Pumping of solid-state lasers
- Material processing

Diode Laser Stack in Housing

qcw, passively cooled

Specifications (Start of Life)

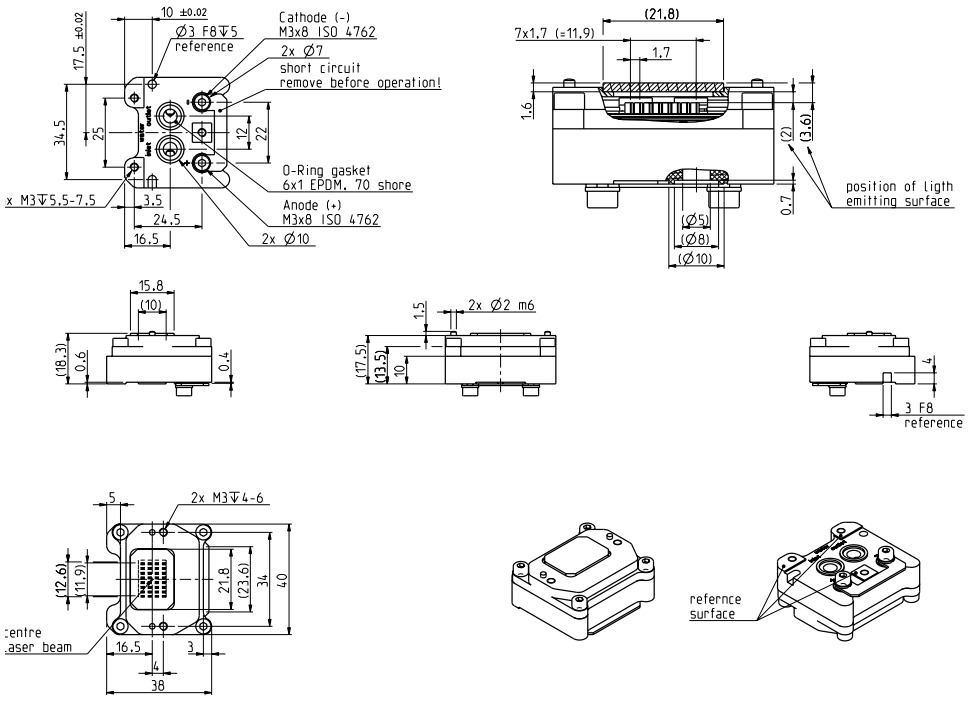
Product	JOLD-x-QA-8A, Design 040221-008-24				
Operation Mode	qcw				
Maximum Pulse Length / Duty Cycle	0.2 ms / 1 %	0.2 ms / 10 %	1.5 ms / 1 %	3.0 ms / 4 %	
Maximum Pulse Power	2400	1200	2400	2000	W
Center Wavelength at 25 °C	808	808	940	940	nm
Center Wavelength Variation at 25 °C	3	3	3	3	nm
Typical Spectral Bandwidth (FWHM)	3	3	5	5	nm
Maximum Spectral Bandwidth (FWHM)	6	6	7	7	nm
Typical Operation Current	285	165	300	260	A
Maximum Operation Current	300	180	315	275	A
Typical Threshold Current	23	23	16	16	A
Maximum Threshold Current	25	25	18	18	A
Typical Slope	9.2	8.5	8.5	8.2	W/A
Minimum Slope	8.6	7.6	8	7.7	W/A
Typical Operating Voltage	15.8	14.4	14.9	14.7	V
Maximum Operating Voltage	16.8	15.4	15.9	15.7	V
Typical Fast Axis Divergence 95 %	66	66	47	47	°
Typical Slow Axis Divergence 95 %	10.0	8.5	10.0	8.5	°
Spot Size (at exit window)	15 mm x 10 mm				
Anode, Cathode Connectors	Via two M3 x 8 screws (ISO 4762)				
Operation Conditions	Non-condensing atmosphere; no cleanroom needed				
Expected Lifetime	> 1 GShot				

Cooling:

Flow Rate	0.8 l/min ± 20 %	
Water Temperature	15 ... 25	°C
Maximum Inlet Pressure	400	kPa
Maximum Pressure Drop	100	kPa
Water Connection	Via o-ring gaskets 6 mm x 1 mm, EPDM, 70 shore	
Water Quality	Industrial grade, anti-freeze possible, particle filter < 100 µm (not included)	
Cooling System	Do not use any material that combination with copper would form galvanic elements (e.g. aluminum, zinc, brass)	

See General User Information!

Options on request: variation number of bars, fast axis collimation



JENOPTIK I Lasers & Material Processing
JENOPTIK Laser GmbH
Goeschwitzer Strasse 29 I 07745 Jena I Germany
Phone: +49 3641 65-3053 I Fax: +49 3641 65-4011
E-mail: sales-laser.lm@jenoptik.com I www.jenoptik.com/diodelasers