

### JOLD-x-QA-8A

## Diode laser stack in housing: qcw, passively cooled with tap water, high power

#### Design 04022100824

#### Features

- High optical output power up to 2400 W qcw
- Wavelengths: 808 and 940 nm
- Small and robust design, light weight (< 60 g)
- Sealed housing
- Cooling with tap water

#### Applications

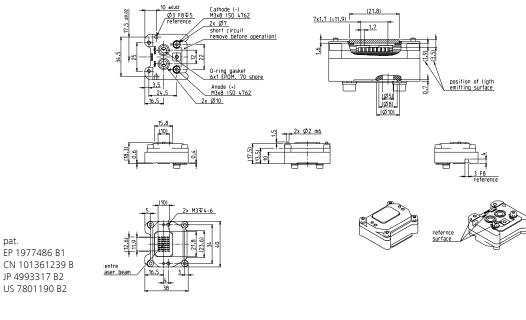
- Pumping of solid-state lasers
- Material processing

# Diode laser stack in housing | qcw, passively cooled with tap water, high power JOLD-x-QA-8A

Specifications (start of life)	JOLD-x-QA-8A Design 04022100824				
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	0
Typical Slow Axis Divergence 95 %	10.0	8.5	10.0	8.5	0
Spot Size (at exit window)	15 mm x 10 mm				
Anode, Cathode Connectors	Via two M3 x 8 screws (ISO 4762)				
Weight	55				g
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 in 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 Optical Systems GmbH Goeschwitzer Strasse 25 | 07745 Jena | Germany Phone +49 3641 65-3053 | Fax +49 3641 65-4011 laser.sales@jenoptik.com | www.jenoptik.com

