



Diode Laser Stack in Housing

qcw, passively cooled



JOLD-x-QAF-8A

Design 040221-078-24

Features:

- High optical output power up to 780 W for long pulses
- Small and robust design, light weight (< 60 g)
- Sealed housing
- Cooling with tap water

Applications:

- Pumping of solid-state lasers
- Medical applications

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Specifications (Start of Life)

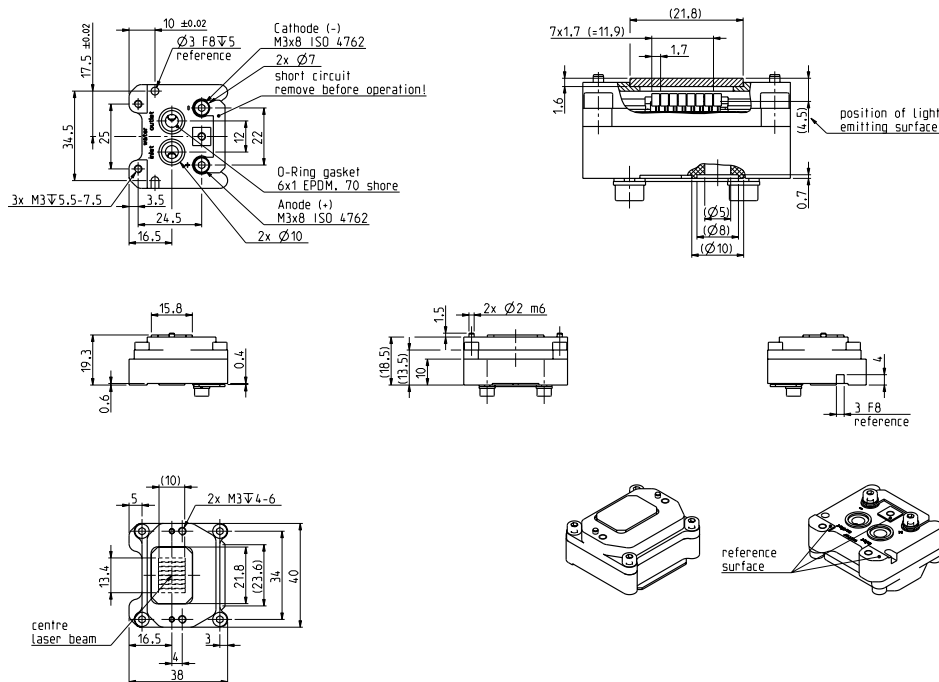
Product	JOLD-x-QAF-8A, Design 040221-078-24				
Operation Mode	qcw				
Maximum Pulse Length / Duty Cycle	50 ms / 15 %	100 ms / 20 %	200 ms / 33 %	400 ms / 55 %	
Maximum Pulse Power	780	550	280	150	W
Maximum Mean Power	117	110	92	82.5	W
Maximum Pulse Energy	39	55	56	60	J
Center Wavelength at 25 °C	808	808	808	808	nm
Center Wavelength Variation at 25 °C	10	10	10	10	nm
Typical Operation Current	110	85	55	42	A
Maximum Operation Current	120	90	60	45	A
Typical Threshold Current	15	15	15	15	A
Maximum Threshold Current	20	20	20	20	A
Typical Slope	8.3	7.9	7.0	5.6	W/A
Minimum Slope	7.4	7.3	6.2	5.0	W/A
Maximum Operating Voltage	15	15	15	15	V
Fast Axis Divergence (Full Power)	< 0.5	< 0.5	< 0.5	< 0.5	°
Typical Slow Axis Divergence 95 %	10	10	10	10	°
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	15	15	7	4	Mshots

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



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EP 1977486 B1
CN 101361239 B
JP 4993317 B2
US 7801190 B2



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