

Fiber-Coupled Passively Cooled Diode Lasers

- NEW: up to 140 W cw

JOLD-100-CPXF-2P W
JOLD-140-CPXF-2P W

Design 15533224 / 15533124



Features:

- Very high optical output power
- Fiber core diameter: 400 μm / 600 μm (NA 0.22)
- Long lifetime > 20,000 h, high reliability
- Convectively cooling

Applications:

- Pumping of solid-state lasers and fiber lasers
- Material processing in industry (e.g. plastics welding, soldering)
- Medical applications



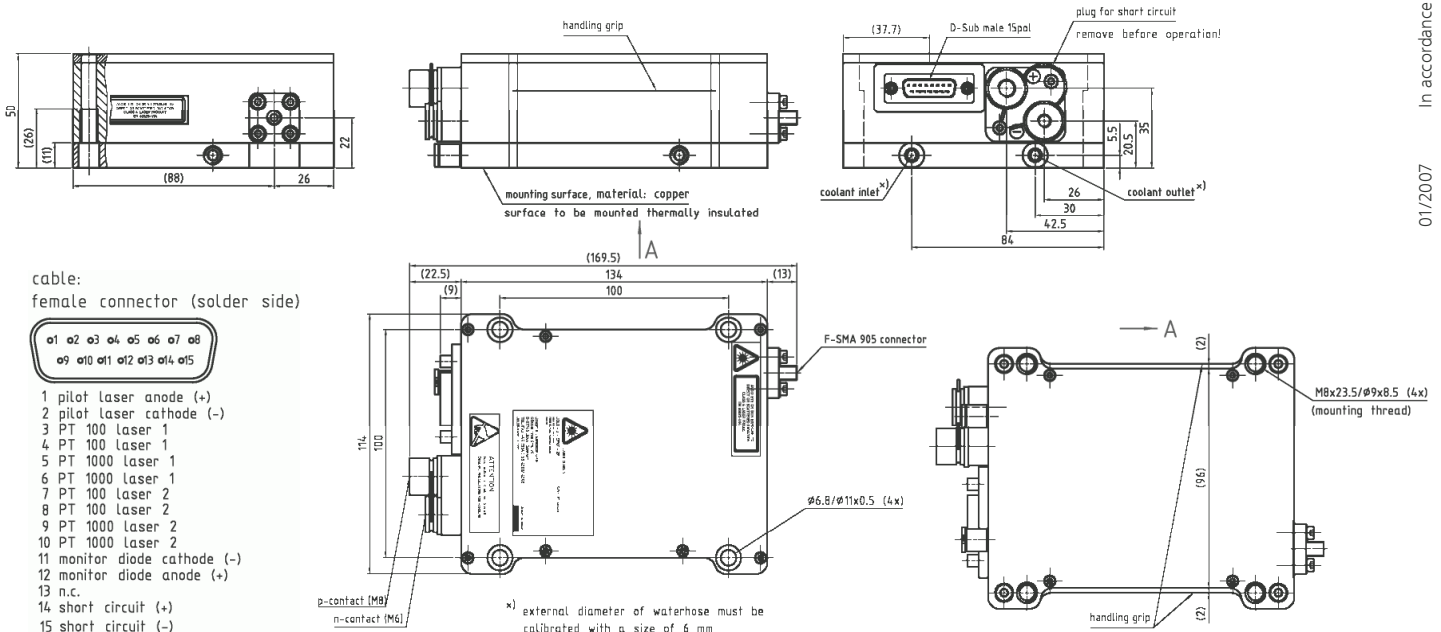
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Preliminary Specifications (Start of Life)

Product	JOLD-100-CPXF-2P W, Design 15533224			JOLD-x-CPXF-2P W, Design 15533124			
Operation Mode	cw, power modulation only between threshold and maximum current						
Maximum Optical Output Power	100	100	100	100	140	140	W
Center Wavelength at 25 °C	915	938	976	808	938	976	nm
Center Wavelength Variation at 25°C	5	5	3	5	5	3	nm
Typical Spectral Bandwidth (FWHM)	5	5	5	5	5	5	nm
Maximum Spectral Bandwidth (FWHM)	6	6	6	6	6	6	nm
Typical Operation Current	70	72	72	85	112	112	A
Maximum Operation Current	80	80	80	95	122	122	A
Typical Threshold Current	6	6	6	19	15	15	A
Maximum Threshold Current	9	9	9	22	18	18	A
Typical Slope	1.6	1.6	1.6	1.6	1.5	1.5	W/A
Minimum Slope	1.3	1.3	1.3	1.3	1.3	1.3	W/A
Maximum Operating Voltage	4.5	4.5	4.5	4.5	4.5	4.5	V
Fiber Core Diameter, Numerical Aperture	400 µm, NA 0.22 *	400 µm, NA 0.22 *	400 µm, NA 0.22 *	600 µm, NA 0.22	600 µm, NA 0.22	600 µm, NA 0.22	
Fiber Connector	F-SMA 905, potential free; metal armored patchcord only! ; * free standing fiber towards the module						
Integrated Temperature Sensor	PT 100 and PT 1000, separately for each diode laser						
Power Monitor	Infineon, SFH 229						
Pilot Laser	Laser class 3A, 1...3 mW, 650 nm ± 10 nm, 3...5 V, 85...115 mA, power not adjustable (only for teaching and targeting purposes before laser operation)						
Anode, Cathode Connectors	M8, M6 (Socket cap screws DIN 912)						
Signal Connector	D-Sub, male, 15 pin						
Operation Conditions	Non-condensing atmosphere						
Expected Lifetime	> 20,000 h (constant current), under qualification						
Cooling:							
Flow Rate	> 3 l/min						
Water Temperature	8...20°C						
Pressure Drop	< 80 kPa						
Water Connectors	Ø 6 mm (OD) push-in fittings						
Water Quality	Industrial water, unfiltered up to a particle size of 0.5 mm						
Diode Laser Operating Temperature	15...30°C, measured with internal temperature sensor						
Note	Specify exact wavelength needed with your order						
	See General User Information!						

Options on request: 75 W cw with integrated TECs (JOLD-75-CPXF-2P ITEC); 981 nm; 140 W @ 915 nm



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