JENOPTIK

Fiber-Coupled Diode Lasers

cw & qcw, passively cooled with integr. TEC, new: 880 nm

JOLD-30-CPXF-1L
JOLD-70-QPXF-1L

Design 215415624 I 215415124

Features:

- High optical output power of 30 W cw, 70 W qcw
- Fiber core diameter: 400 µm I 600 µm (NA 0.22)
- Integrated power monitor
- Long Lifetime > 20,000 h, high reliability

Applications:

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications

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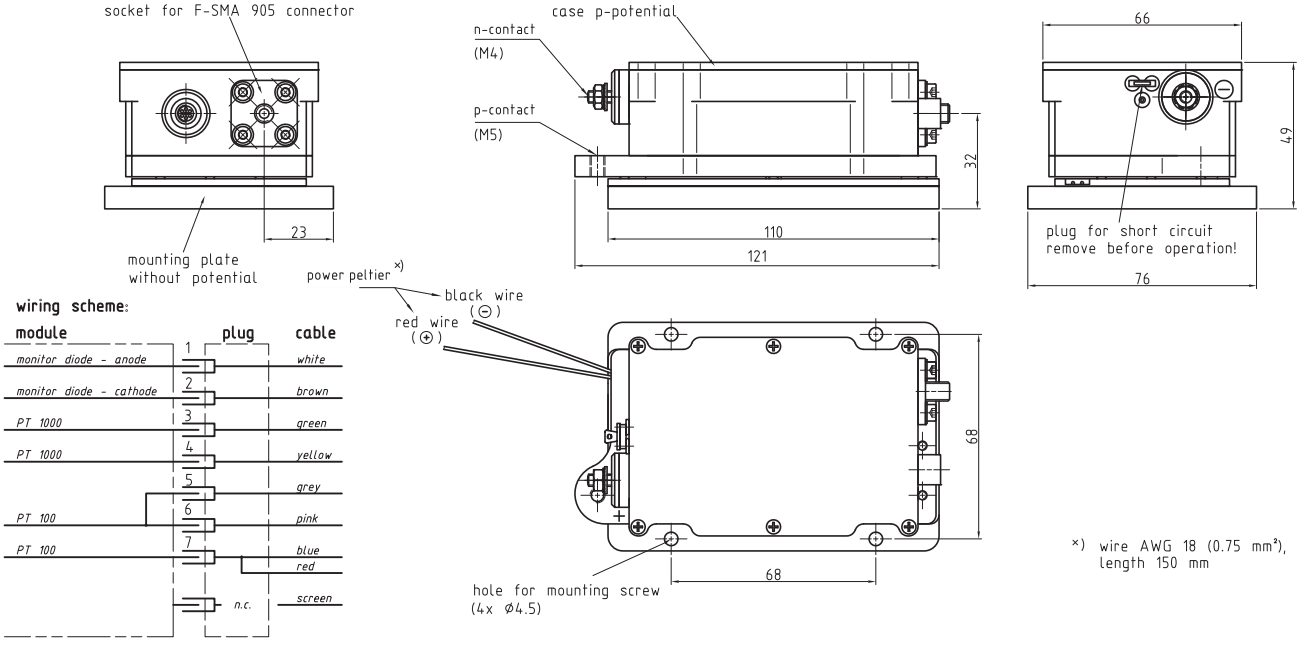
Specifications (Start of Life)

Product	JOLD-30-CPXF-1L, Design 215415624 / 215415124					JOLD-70-QPXF-1L, Design 215415124		
Operation Mode	cw, power modulation only between threshold and maximum current					qcw		
Maximum Pulse Length / Duty Cycle						≤ 0.3 ms / ≤ 20 %		
Maximum Optical Output Power	30	30	30	30	30	70	70	W
Center Wavelength at 25 °C	808	880	915	938	976	808	938	nm
Center Wavelength Variation at 25 °C	3	3	5	5	3	5	5	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	4	4	4	4	5	5	nm
Typical Operation Current	40	43	42	42	44	105	120	A
Maximum Operation Current	45	47	47	47	47	120	130	A
Typical Threshold Current	7	9	6	6	6	18	20	A
Maximum Threshold Current	10	12	9	9	9	20	25	A
Typical Slope	0.90	0.90	0.85	0.85	0.80	0.85	0.70	W/A
Minimum Slope	0.75	0.75	0.70	0.70	0.70	0.65	0.60	W/A
Maximum Operating Voltage	2	2	2	2	2	2.2	2.2	V
Fiber Core Diameter, Numerical Aperture	**Design 215415624:** 400 µm, NA 0.22; free standing fiber inside F-SMA 905 towards the module **Design 215415124:** 600 µm, NA 0.22							
Fiber Connector	F-SMA 905							
Power Monitor	Infineon, SFH 229							
Anode, Cathode Connectors	M5 (e.g. socket cap screw ISO 4762), M4 (threaded bolt and hex nut ISO 4032)							
Operation Conditions	Non-condensing atmosphere							
Expected Lifetime	> 20,000 h (constant current)					> 1 GShot		
Cooling:								
Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface							
Note	**Do not mount via any paste-like media!**							
Diode Laser Operating Temperature	15 ... 30 °C, measured with internal temperature sensor							
Temperature Sensor	PT 100 and PT 1000							
Integrated TECs	Connected in series, cold side at max. 30 °C							
Maximum Cooling Power	2 TECs x 173 W => 346 W							
Maximum TEC Voltage, Current	2 x 24.6 V => 49.2 V, 11.3 A							
	Manufactured under license of FhG-ILT Aachen (Germany).							
	See General User Information!							

Options on request: 88x nm; for additional designs or specifications please visit our website: www.jenoptik.com



x) wire AWG 18 (0.75 mm²), length 150 mm

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