JENOPTIK

Fiber-Coupled Diode Lasers

qcw, passively cooled with integrated TEC

JOLD-120-QPXF-2P iTEC

Design 215529124

Features:

- High optical output power of 120 W qcw
- Fiber core diameter: 600 µm (NA 0.22)
- Integrated pilot laser and power monitor
- Long lifetime > 1GShot, high reliability

Applications:

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

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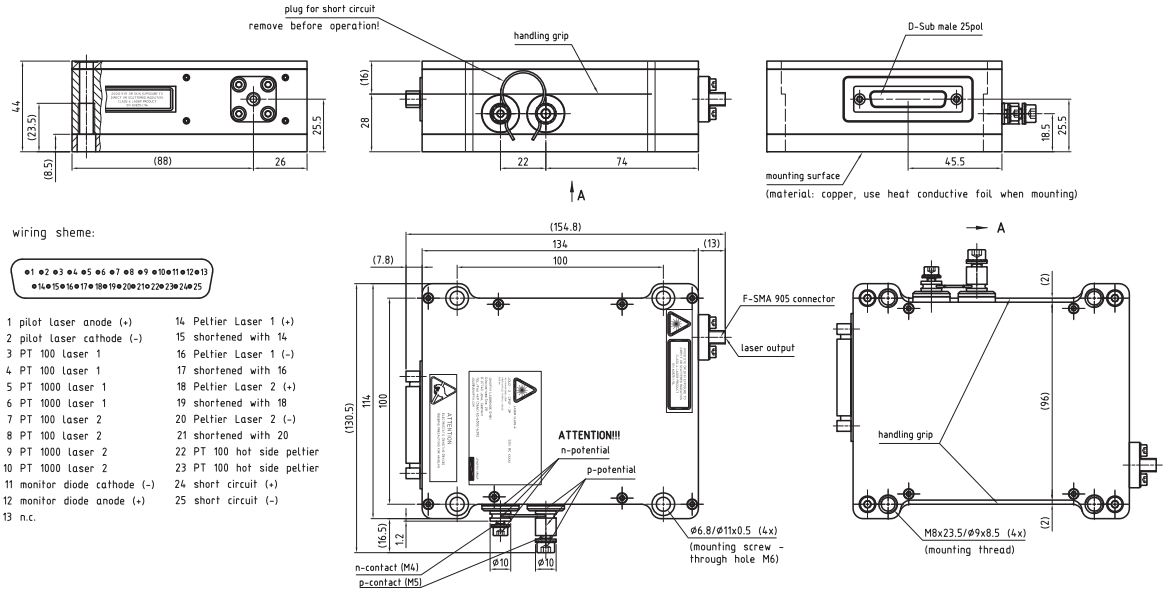
qcw, passively cooled with integrated TEC

Specifications (Start of Life)

Product	JOLD-120-QPXF-2P iTEC, Design 215529124		
Operation Mode	qcw		
Maximum Pulse Length / Duty Cycle	≤ 0.3 ms / ≤ 20 %		
Maximum Optical Output Power	120	120	W
Center Wavelength at 25 °C	808 *	938 *	nm
Center Wavelength Variation at 25 °C	5	5	nm
Typical Spectral Bandwidth (FWHM)	5	5	nm
Maximum Spectral Bandwidth (FWHM)	6	6	nm
Typical Operation Current	105	120	A
Maximum Operation Current	120	130	A
Typical Threshold Current	18	20	A
Maximum Threshold Current	20	25	A
Typical Slope	1.4	1.2	W/A
Minimum Slope	1.1	1.0	W/A
Maximum Operating Voltage	5.5	5.5	V
Fiber Core Diameter, Numerical Aperture	600 µm, NA 0.22		
Fiber Connector	F-SMA 905, potential free		
Power Monitor	Infineon, SFH 229		
Pilot Laser	0.5 ... 3 mW, 650 nm ± 15 nm, 3 ... 5 V, 40 ± 15 mA, power not adjustable (only for teaching and targeting purposes before laser operation)		
Anode, Cathode Connectors	M5, M4 (e.g. socket cap screws ISO 4762)		
Signal Connector	D-Sub, male, 25 pin		
Operation Conditions	Non-condensing atmosphere		
Expected Lifetime	> 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		
Integrated Temperature Sensors	PT 100 and PT 1000, separately for each diode laser		
Temperature Sensor TEC	PT 100 (1 for all TECs at common hot side)		
Max. Hot Side Temperature	50 °C		
Maximum Cooling Power	2 TECs x 173 W => 346 W		
Maximum TEC Voltage, Current	24.6 V, 11.3 A (per TEC)		
* Adjustment Range of Wavelength	± 2 nm ... ± 3 nm, diode laser wavelengths separately adjustable by TECs		
	See General User Information!		

Options on request: For additional designs or specifications please visit our website: www.jenoptik.com/diodelasers



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