



JENOPTIK

## Fiber-coupled diode lasers: cw, passively cooled with air or tap water JOLD-100-CPXF-2P A | JOLD-140-CPXF-2P W

Design 215535524 | 215535424

### Features

- High optical output power up to 140 W cw
- Wavelengths: 915, 938 and 976 nm
- Fiber core diameter: 400  $\mu\text{m}$  (NA 0.22)
- Long lifetime > 20,000 h, high reliability
- Air cooling possible

### Applications

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

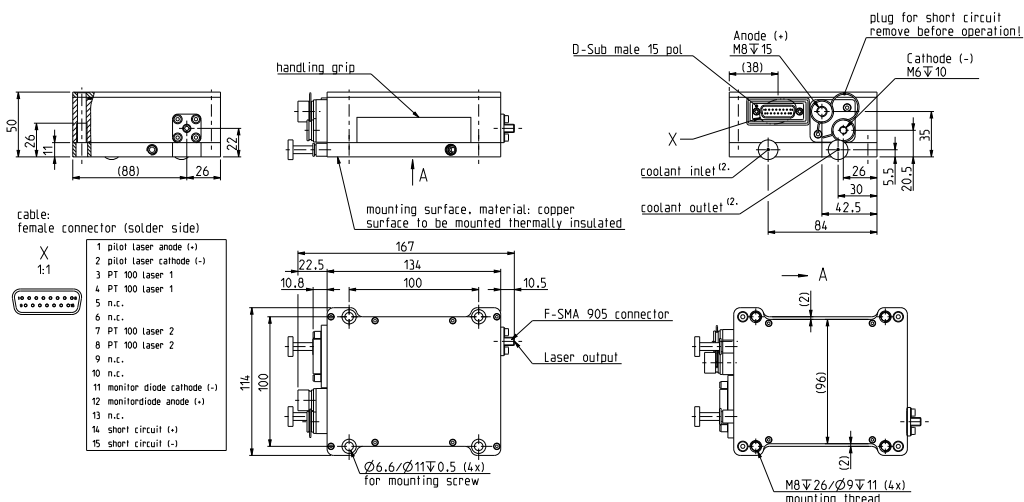
# Fiber-coupled diode lasers | cw, passively cooled with air or tap water

## JOLD-100-CPXF-2P A | JOLD-140-CPXF-2P W

Specifications (start of life)	JOLD-100-CPXF-2P A Design 215535524 (50 °C)			JOLD-140-CPXF-2P W Design 215535424 (25 °C)			
Operation Mode	cw, power modulation only between threshold and maximum current						
Maximum Optical Output Power	100	100	100	140	140	140	W
Center Wavelength	915	938	976	915	938	976	nm
Center Wavelength Variation at 25 °C	5	5	5	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	85	85	85	95	95	95	A
Maximum Operation Current	100	100	100	105	105	105	A
Typical Threshold Current	6	6	6	6	6	6	A
Maximum Threshold Current	9	9	9	9	9	9	A
Typical Slope	1.25	1.3	1.3	1.6	1.6	1.6	W/A
Minimum Slope	1.05	1.0	1.0	1.4	1.4	1.4	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						
Fiber Connector	HP-SMA 905, both ends free standing						
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	M8, M6 (e.g. socket cap screws ISO 4762)						
Signal Connector	D-Sub, male, 15 pin						
Operation Conditions	Non-condensing atmosphere						
Expected Lifetime (Constant Current)	> 10,000 h			> 20,000 h			
<b>Cooling</b>							
Flow Rate				> 3 l/min			
Water Temperature				8 ... 20 °C			
Water Pressure	No water or TEC needed, air cooling possible			400 kPa maximum inlet and outlet pressure, < 80 kPa pressure drop			
Water Connectors				Ø 6 mm push-in fittings			
Water Quality				Industrial water, unfiltered up to a particle size of 0.5 mm			
Diode Laser Operating Temperature	15 ... 55 °C, measured with internal sensor			15 ... 35 °C, measured with internal sensor			
Integrated Temperature Sensor	PT 100 (PT 1000 or NTC 10 k optional), separately for each diode laser						
Note	Specify exact wavelength needed with your order						

See general user information!

Options on request: For additional designs, other wavelengths or specifications please visit our website: [www.jenoptik.com](http://www.jenoptik.com)



Design 215535424

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