



JENOPTIK

## Fiber-coupled diode lasers: cw, passively cooled JOLD-30-FC-1x

JOLD-30-FC-12 | Design 215627124

JOLD-30-FC-14 | Design 215627224

### Features

- High optical output power of 30 W cw
- Wavelengths: 808, 880, 915, 938 and 976 nm
- Fiber core diameter: 200  $\mu\text{m}$  | 400  $\mu\text{m}$  (NA 0.22)
- Cooling via mounting plate
- Long lifetime > 20,000 h, high reliability

### Applications

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

# Fiber-coupled diode lasers | cw, passively cooled

## JOLD-30-FC-1x

### Specifications (start of life)

### JOLD-30-FC-12 Design 215627124 / JOLD-30-FC-14 Design 215627224

Operation Mode	cw, power modulation only between threshold and maximum current					
Maximum Optical Output Power	30	30	30	30	30	W
Center Wavelength at 25 °C	808	880	915	938	976	nm
Center Wavelength Variation at 25 °C	3	3	5	5	3	nm
Typical Spectral Bandwidth (FWHM)	3	4	4	4	4	nm
Maximum Spectral Bandwidth (FWHM)	4	5	5	5	5	nm
Typical Operation Current	40	43	42	42	44	A
Maximum Operation Current	45	47	47	47	47	A
Typical Threshold Current	7	9	6	6	6	A
Maximum Threshold Current	10	12	9	9	9	A
Typical Slope	0.9	0.9	0.85	0.85	0.8	W/A
Minimum Slope	0.8	0.8	0.75	0.75	0.75	W/A
Maximum Operating Voltage	2	2	2	2	2	V
Fiber Core Diameter, Numerical Aperture	JOLD-30-FC-12, Design 215627124: 200 µm, NA 0.22 JOLD-30-FC-14, Design 215627224: 400 µm, NA 0.22					
Fiber Centricity	< 10 µm					
Fiber Connector	F-SMA 905, free standing fiber towards the module					
Anode, Cathode Connectors	M5, M4 (case isolated)					
Operation Conditions	Non-condensing atmosphere					
Expected Lifetime	> 20,000 h (constant current), partly under qualification					
<b>Cooling</b>						
Mounting	Via thermally conductive foil (thickness 25 ... 100 µm) on cooled surface					
Note	<b>Do not mount via any paste-like media!</b>					
Diode Laser Operating Temperature	15 ... 30 °C at temperature sensor					
Temperature Sensor	Hole for thermal sensor, see drawing					

### See general user information!

Options on request: 88x nm; fiber core diameter 800 µm, NA 0.14

