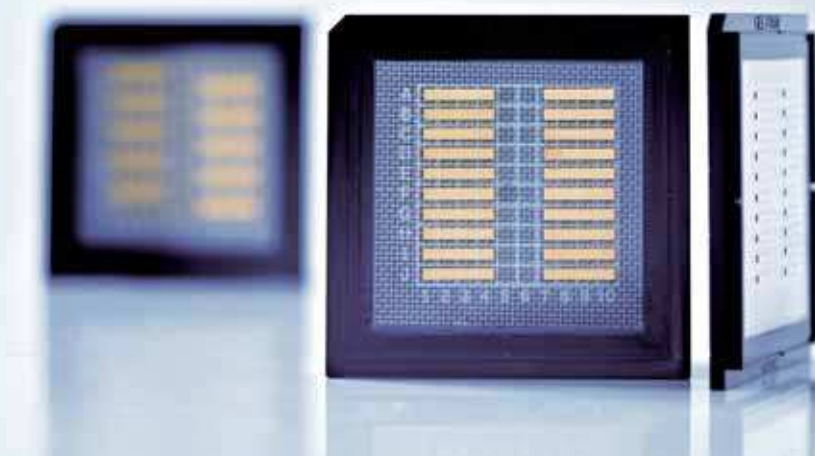




High Power Diode Laser Bars

808 nm, 300 W qcw



JDL-BAB-75-62-808-TE-300-1.5

Features:

- High laser power
- High efficiency
- Long lifetime, high reliability
- Excellent beam characteristics

Applications:

- Pumping of solid-state lasers and fiber lasers
- Industrial, scientific and medical systems
- Applications in the printing industry
- Defense and security

High Power Diode Laser Bars

808 nm, 300 W qcw

Specifications

Product

JDL-BAB-75-62-808-TE-300-1.5

	Symbol	Min	Nom	Max	Unit
Operation*					
Wavelength	λ	803	806	809	nm
Optical Output Power	P_{opt}		300		W
Operation Mode			pulsed		
Power Modulation			100		%
Geometrical					
Number of Emitters			62		
Emitter Width	W	90	100	110	μm
Emitter Pitch	P		150		μm
Filling Factor	F		75		%
Bar Width	B	9600	9800	10000	μm
Cavity Length	L	1480	1500	1520	μm
Thickness	D	115	120	125	μm
Electro Optical Data*					
Fast Axis Divergence (FWHM)	$\theta_{\perp}$		36	39	°
Fast Axis Divergence**	$\theta_{\perp}$		65	68	°
Slow Axis Divergence at 300 W (FWHM)	$\theta_{\parallel}$		8	9	°
Slow Axis Divergence at 300 W**	$\theta_{\parallel}$		10	11	°
Pulse Wavelength	λ	803	806	809	nm
Spectral Bandwidth (FWHM)	$\Delta\lambda$		3	5	nm
Slope Efficiency***	η	1.1	1.2		W/A
Threshold Current	I_{th}		16	20	A
Operating Current	I_{op}		266	295	A
Operating Voltage	V_{op}		2.1	2.4	V
Series Resistance	R_s		2	4	m Ω
Degree of TE Polarization	α	98			%
EO Conversion Efficiency***	η_{tot}	52	56		%

* Mounted on a heat sink with $R_{th} = 0.7 \text{ K/W}$, coolant temperature 25°C , operating at nominal power, 200 μsec pulse length and 4 % duty cycle

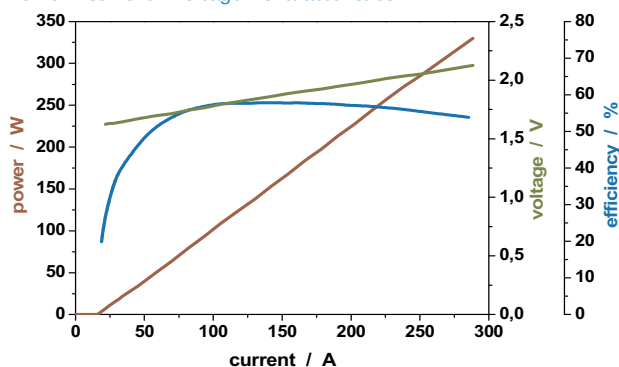
** Full width at 95 % power content

*** Item may change upon notice and acceptance by JENOPTIK Diode Lab GmbH, due to future improvements of technology or processing

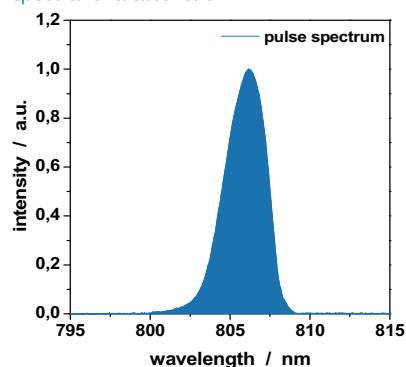
Note: Nominal data represents typical values.

Safety Advises: Laser bars are the active components in high-power diode lasers in accordance to IEC standard class 4 laser products. As delivered, laser bars cannot emit any laser beam. The laser beam can only be released if the bars are connected to a source of electrical energy. In this case, IEC-Standard 60825-1 describes the safety regulations to be taken to avoid personal injury.

Power - Current - Voltage - Characteristics*



Spectral Characteristic*



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