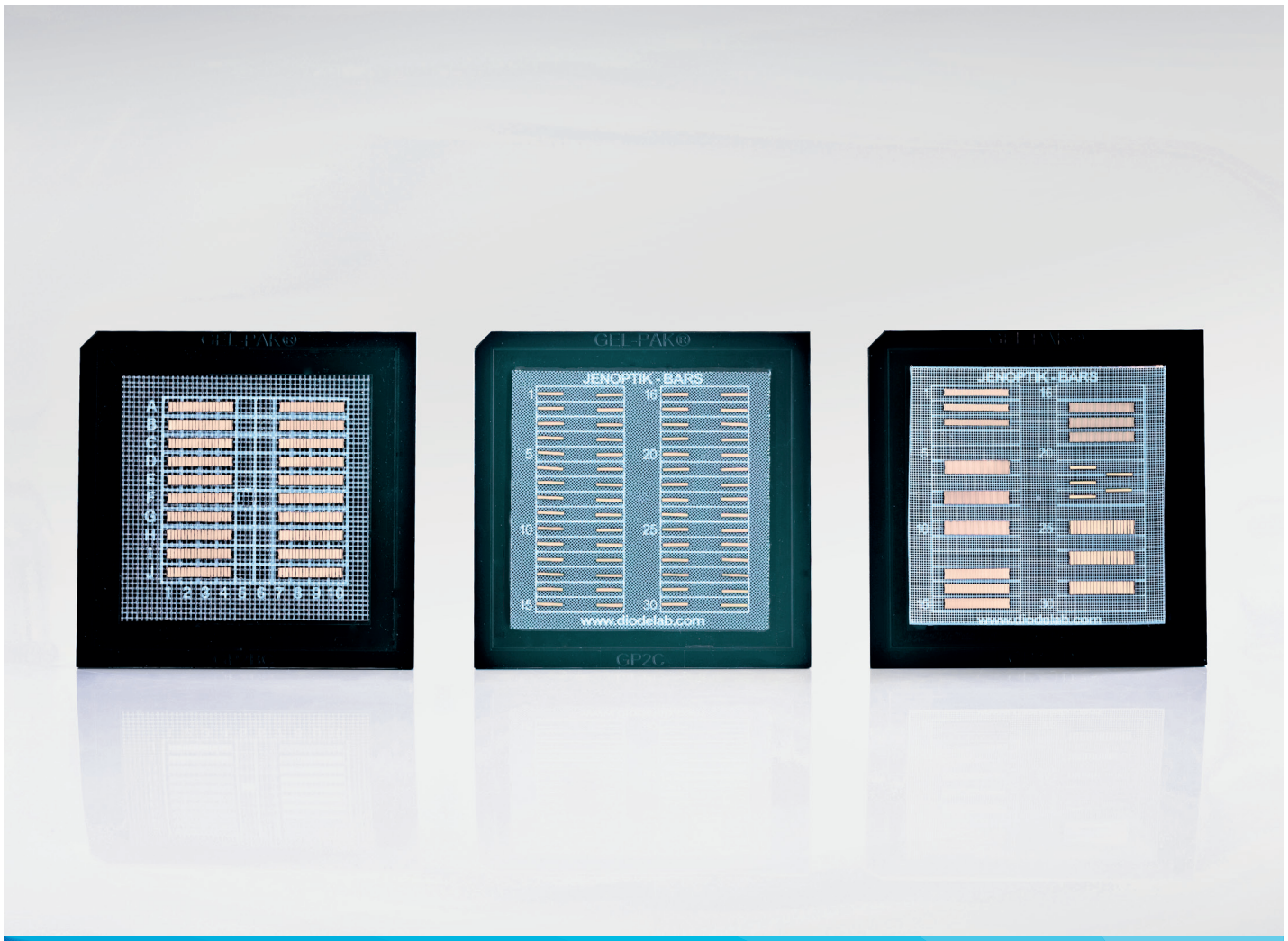



JENOPTIK

MORE LIGHT

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

# High-power diode laser bars: 808 nm, 300 W qcw

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
- Printing industry
- Defense and security

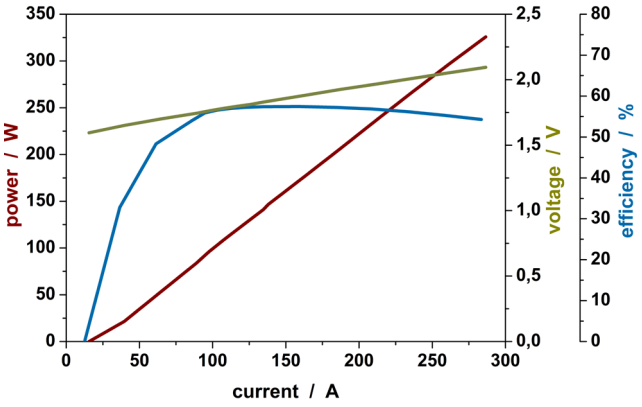
# High-power diode laser bars | 808 nm, 300 W qcw
# JDL-BAB-75-62-808-TE-300-1.5

| Specifications | JDL-BAB-75-62-808-TE-300-1.5 | | | | |
|---|---|---|---|---|---|
| **Operation*** | **Symbol** | **Min** | **Nom** | **Max** | **Unit** |
| Wavelength (qcw) | λ | 805 | **808** | 811 | 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 | 805 | **808** | 811 | nm |
| Spectral Bandwidth (FWHM) | Δλ | | **3** | 5 | nm |
| Slope Efficiency*** | η | 1.15 | **1.25** | | W/A |
| Threshold Current | $I_{th}$ | | **22** | 25 | A |
| Operating Current | $I_{op}$ | | **262** | 285 | A |
| Operating Voltage | $V_{op}$ | | **2.1** | 2.2 | V |
| Series Resistance | $R_s$ | | **3** | 4 | mΩ |
| Degree of TE Polarization | α | 98 | | | % |
| EO Conversion Efficiency*** | $\eta_{tot}$ | 52 | **55** | | % |

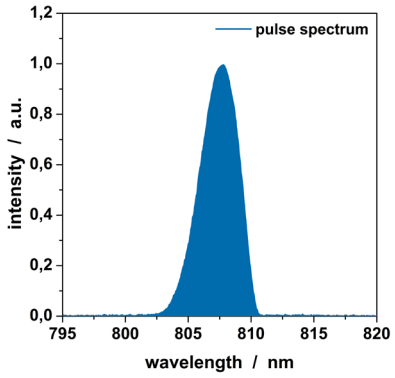
* Mounted on a heat sink with Rth = 0.7 K/W, coolant temperature 25 °C, operating at nominal power, 200 µsec pulse length and 4 % duty cycle
** Full width at 95 % power content
*** Item may change upon notice and acceptance by Jenoptik, due to future improvements of technology or processing

Note: Nominal data represents typical values.
Safety Advice: 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 Characteristics*

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