

FEATURES

- 1 kHz to 3 kHz operation
- Up to 36 W at 527 nm
- Outstanding stability and focusability with $M2 \sim 18$
- Computer control

APPLICATIONS

- Femtosecond amplifier pumping
- Material processing
- Instrumentation
- Scientific

JADE 2

Diode-Pumped Compact Laser Series





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High energy, diode-pumped Nd:YLF laser

The JADE 2 is the latest generation of Nd:YLF laser providing more than 36 W at 527 nm.

It emits a low multi-mode beam ($M^2 \sim 18$) with circular, uniform and smooth quasi Gaussian intensity distribution which makes JADE 2 ideal for maximum efficiency in Ti:Sa amplifier pumping.

The JADE 2 is based on THALES latest developments in diode pumping heads renowned for their outstanding power stability. It features a patented pumping chamber ensuring an unprecedented short and long term power stability with consistent spatial beam performances regardless of pump power. The in-line short cavity design induces laser compactness and easiness of alignment and maintenance. With diode-laser lifetimes of thousands of hours, JADE 2 stands out as the cost-effective leader in high repetition rate Nd:YLF lasers.

Physical characteristics (Size: H x W x L)

Power supply 25.6 x 23.6 x 32.7 in 65 x 60 x 83 cm

Cooling unit 14.6 x 17.4 x 28.4 in 37 x 44 x 72 cm

Utilities and environment requirements

Voltage		208 – 230 VAC +/-5% single ϕ	
Frequency		50 – 60 Hz	
Water⁽¹⁾	Voltage	> 10 L/min	> 2.7 gal /min
	Current	3-5 bars	43.5-72 psi
Frequency		15-17°C	
Operating systems		Windows 98, 2000, NT, XP	

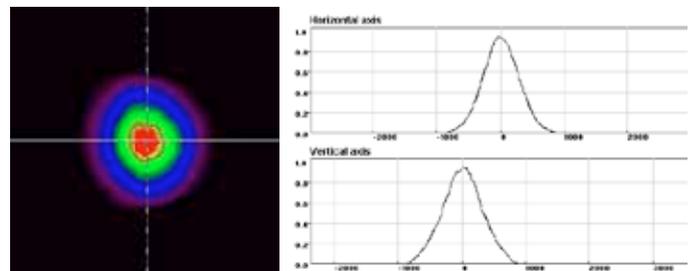
* Water /Water chiller

Specifications

Inputs/Outputs available on the front panel

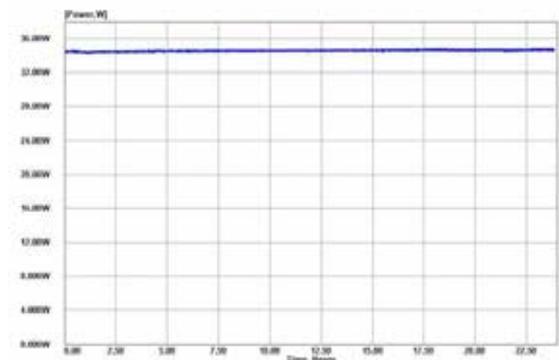
Wavelength (nm)	527	527
Repetition rate⁽¹⁾	1 kHz	3 kHz
Energy per pulse (mJ)	> 25	> 12
Average power (W)⁽²⁾	> 25	> 36
Typical pulse width (ns)	< 160	< 250
Pulse to pulse energy stability (% rms)	< 0.8	< 0.8
Typical M^2	18 +/- 2	18 +/- 2
Beam pointing stability (μrad)	+/- 30	+/- 30
Typical Beam size (mm) at waist position	~ 3	~ 3
Beam profile	Multi-mode Gaussian	Multi-mode Gaussian
Polarization	Horizontal	Horizontal

⁽¹⁾ Factory preset at one repetition rate ⁽²⁾ Other average power available on request



Typical Jade 2 beam profile at 527 nm

Long term stability measurement (typical)



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