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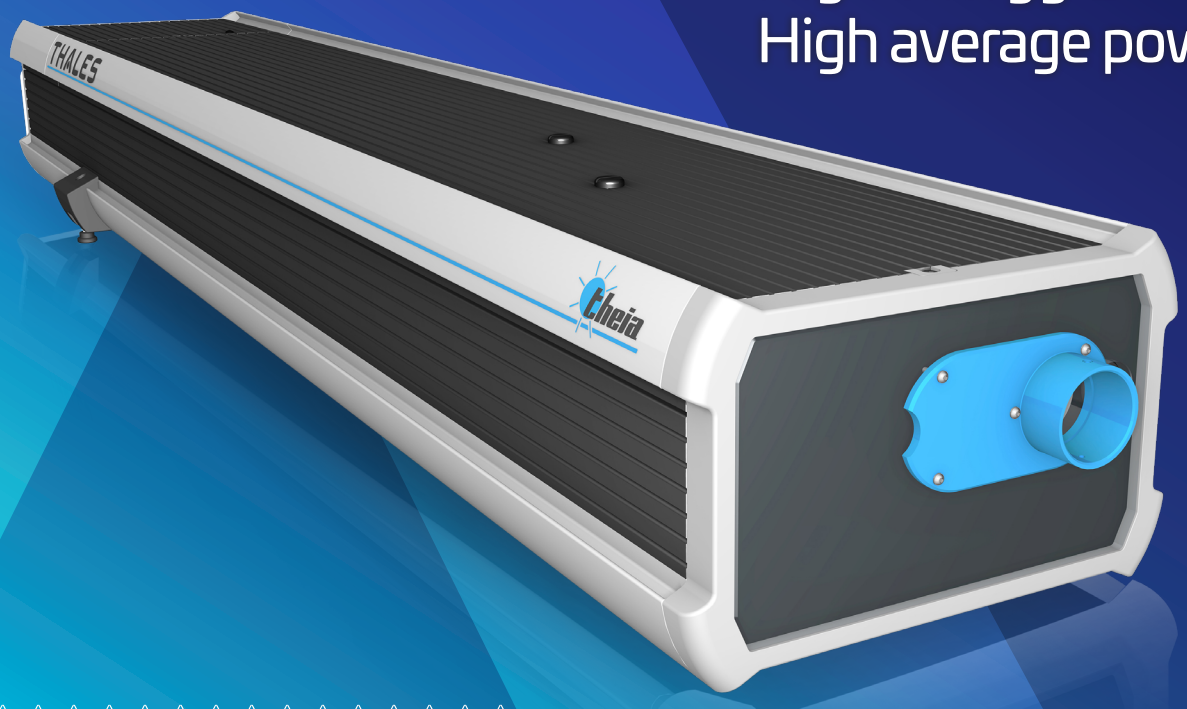
THALES
Building a future we can all trust

THEIA
Diode-Pumped Nd: YAG Laser Series

Designed for industrial applications

High reliability & lifetime

High energy &
High average power



THEIA

Diode-Pumped Solid State Laser

Applications

- Laser shock peening
- Laser adherence testing
- Laser annealing
- Laser lift-off
- Laser cleaning
- Pumping of TeraWatt TiSa amplifiers

Features and Benefits

- High energy (Joule class) and high average power (>100 W) from the same laser beam
- Performance suited to the most demanding industrial applications
- Reliable solution to use in manufacturing process
- Low operation and maintenance costs
- Long lasting pumping diodes

Physical characteristics

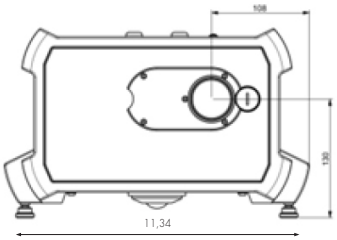
Power supply	
20.9 x 22 x 31.1 in	65 x 60 x 83 cm
Cooling unit	
14.6 x 17.4 x 28.4 in	37 x 44 x 72 cm
Laser Head	
63 x 11.34 x 7.4 in	160 x 28.8 x 18.8 cm

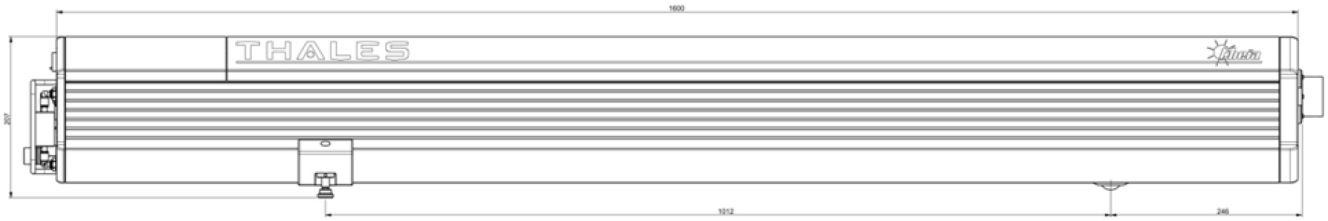
Specifications

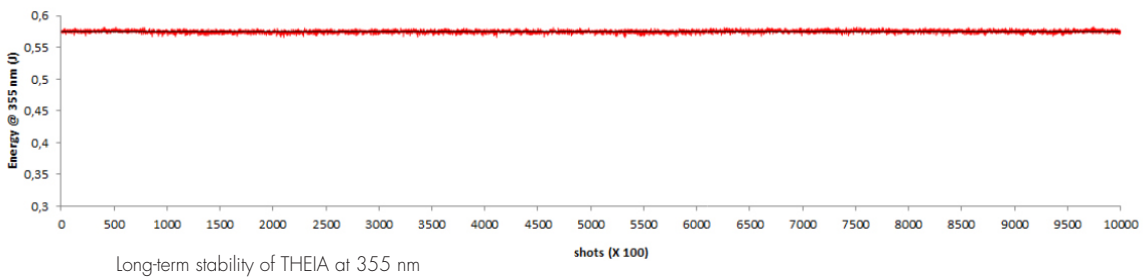
MODEL	THEIA
Repetition Rate (Hz)	Up to 200
Energy per pulse (mJ)	
-> At 1064 nm	≥ 1000
-> At 532 nm	≥ 700
-> At 355 nm	≥ 500
Pulse to pulse energy stability (% rms)	< 1
Typical pulse duration (ns)	10

Utilities and environment requirements

Voltage	230 VAC ± 5% Single phase	
Frequency	50 – 60 Hz	
Water Flow	> 2.7 gal/min	>10 L/min
Static pressure	43.5 – 72 psi	3 – 5 bars
Temperature	15 – 17 °C	







Long-term stability of THEIA at 355 nm

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