

Atlas+

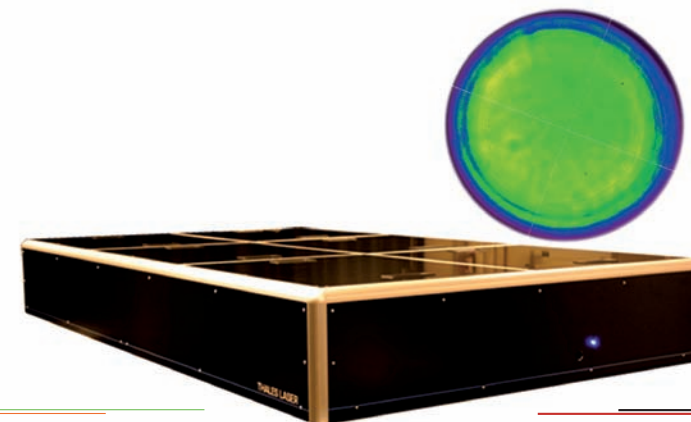
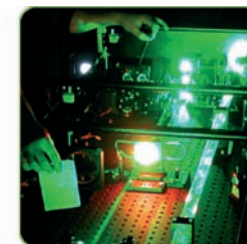
FLASHLAMP-PUMPED GLASS SERIES

FEATURES

- 25 J ENERGY PER PULSE @ 527 NM
- 0.1Hz REPETITION RATE
- UNMATCHED BEAM PROFILE
- PULSE DURATION ~13NS (+/-3NS)
or 2x 13NS (+/-3NS)
- 1 or 2 BEAMS
- SUPERVISION SOFTWARE
- INTEGRATED ISEO TIMING GENERATOR
- SINGLE BOX COMPACT DESIGN
1 X 2.5 M² FOOTPRINT

APPLICATIONS

- IDEAL PUMP FOR PETAWATT Ti:Sa LASERS
- LASER SHOT PEENING



25J @ 0.1 Hz @ 527 nm Top Hat smooth profile !

Atlas+ breaks through the beam profile issue of conventional glass phosphate lasers to stand out as the reference pump laser for the emergent PW Ti:Sa femtosecond lasers.

Indeed, Atlas+ concentrates the solutions to offer the best spatial beam profile: long pulse duration for a limited B-integral, birefringence compensation and top-hat beam profile multimode oscillator which also improves the energy extraction efficiency.

With only 2 oscillators and 4 amplifiers to reach 25 J @ 0.1 Hz in the green, Atlas+ is the most efficient and compact pump laser for PW systems.

This optimized number of amplifiers design has many advantages: besides being compact and extremely reliable, Atlas+ demonstrates very limited beam distortion and reduced maintenance.

Full supervision by software offers remote control of the laser emission, output energy.

ISEO technology is also accessible through the supervision software for synchronization and laser safety controls.

Output Specifications

	1 beam	2 beams
Wavelength (nm)	527	527
Repetition rate (Hz)	0.1	0.1
Energy per pulse (J)	25	2 x 12.5
Pulse duration (ns)	double pulse 13 ns ±3ns	single pulse 13 ns ±3ns
Pulse to pulse energy stability (% rms)	< 1.5	< 1.5
Polarization	Vertical	Vertical
Beam diameter (mm)	≤ 40	≤ 30 for 2 beams
Beam profile	Supergaussian (smooth profile)	Supergaussian (smooth profile)
Divergence (mrad)	< 2	< 2
Pointing stability (μrad)	< 100	< 100
Jitter (ns)	< ±1	< ±1

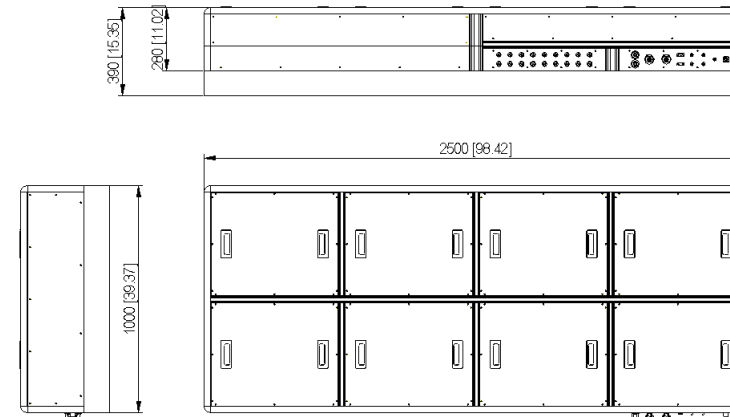
Utilities

Power requirements	Voltage	230 VAC ± 5%	208 VAC ± 5%
	Current	4 x 16 A plugs single phase	4 x 16 A plugs single phase
	Frequency	50 Hz	60 Hz
Water requirements	Flow	4 gal/min	15 l/min
	Static pressure	43.5 - 72 psi	3 - 5 barss
	Temperature	10 - 17 °C	
Software	Windows 95, 98, 2000, NT, XP		

Physical Characteristics

Power Supply (2 units)	Size (H x W x L)	64.6 x 22.0 x 30.7 in	164 x 56 x 78 cm
Cooling unit	Size (H x W x L)	14.6 x 17.5 x 28.7 in	37 x 44,5 x 73 cm

Dimensions are given in mm (in)



Specifications are subject to change without notice - Last Update: August 2009

FRANCE & EUROPE

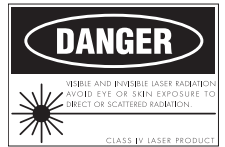
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