

Etna HP

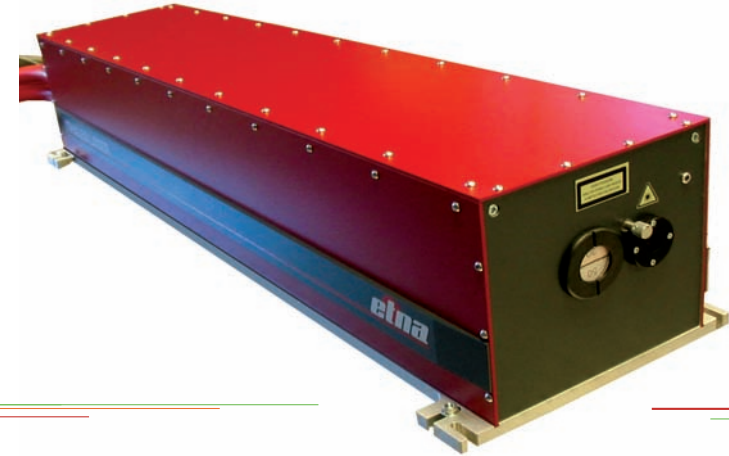
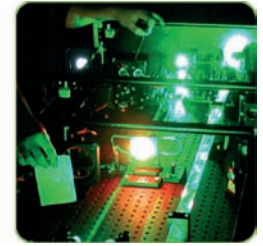
DIODE-PUMPED COMPACT SERIES

FEATURES

- 4 TO 40 kHz OPERATION
- 170 W @ 532 NM
- 220 W @ 1064 NM
- OUTSTANDING STABILITY
- M² BETWEEN 10 AND 40 (ON REQUEST)
- COMPUTER CONTROL
- COMPATIBLE WITH INDUSTRIAL ENVIRONMENT

APPLICATIONS

- FEMTOSECOND AMPLIFIER PUMPING
- MATERIAL PROCESSING
- ITO ABLATION
- Si ANNEALING
- INDUSTRIAL PRECISION MARKING, CUTTING, DRILLING
- INSTRUMENTATION
- SCIENTIFIC PUMP SOURCE FOR NON LINEAR OPTICS



The laser designed for a lot of Power at high Repetition Rate !

As a part of the ETNA family, the ETNA HP relies on solid and improved technological bricks. With up to 170 W of green power, it has been developed to answer to industrial and scientific uses when reliability and flexibility are needed.

ETNA HP is based on THALES Laser's latest developments in diode pumping heads recognised for their outstanding power stability and consistent beam profile regardless of pump power. The extraordinary diode-laser lifetime makes ETNA HP a maintenance free tool over periods of thousands of hours, so as to provide the highest performances at low cost.

The ETNA HP smooth quasi-gaussian intensity distribution of the energy in the beam propagates perfectly from near to far field. The power density can be adjusted on your equipment or target with a constant beam profile by simply defocusing. Moreover throughput is remaining always optimal as the repetition rate can be adjusted to very high level.

Thanks to the high flexibility of its specifications, its extreme easiness of use, its maintenance free and turnkey operation, the ETNA HP already started to work successfully in the Photovoltaic industry to perform ITO ablation and Si Annealing processes. As the most suitable solution for the widest range of applications, it is also very efficient in scientific applications such as pumping Ti:Sa system at high repetition rate, pumping dye lasers or illumination at high speed experiments.

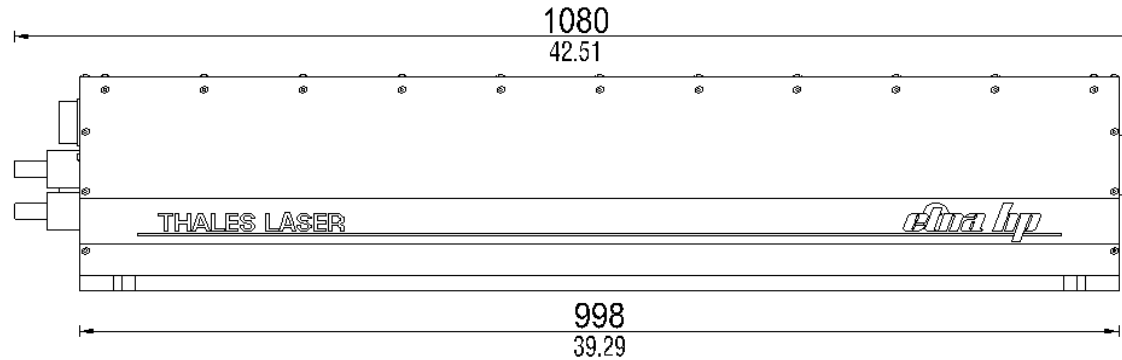
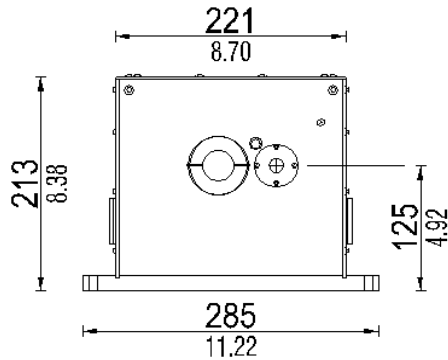
Output Specifications (@ 10kHz)	IR	LM	HM
Wavelength (nm)	1064	532	532
Repetition rate capability	4 - 40 kHz	8 - 40 kHz	4 - 20 kHz
Energy per pulse (mJ)	22	15	17
Average power (W)	220	150	170
Typical Pulse width (ns)	85	50	60
Pulse to pulse energy stability (% rms)	<1.0	< 1.0	< 1.0
Typical M ²	19 ⁽¹⁾	16 ⁽¹⁾	25
Beam Pointing stability (µrad)	± 30	± 30	± 30
Beam size (mm) at waist position	3.2	2.1	2.7
Beam profile	multi-mode, Gaussian	multi-mode, Gaussian	multi-mode, Gaussian
Polarization	unpolarized	vertical	vertical

(1) M² between 10 to 40 on request

Physical Characteristics

Power supply	Size (H x W x L)	25,6 x 23.6 x 32.7 in	65 x 60 x 83 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 and in



Utilities

Power requirements	Voltage	208 VAC	230 VAC
	Current	40 A, single phase	35 A, single phase
	Frequency	60 Hz	50 Hz
Water requirements*	Flow	> 4 gal / mn	> 15 l / mn
	Static pressure	43.5 - 72 psi	3 - 5 bars
	Temperature	15 - 17°C	

* Water to air cooling unit available on request

Software Windows 95, 98, 2000, NT, XP

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

FRANCE & EUROPE

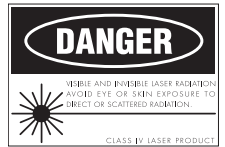
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