

# ETNA HP Diode-Pumped Compact Laser Series



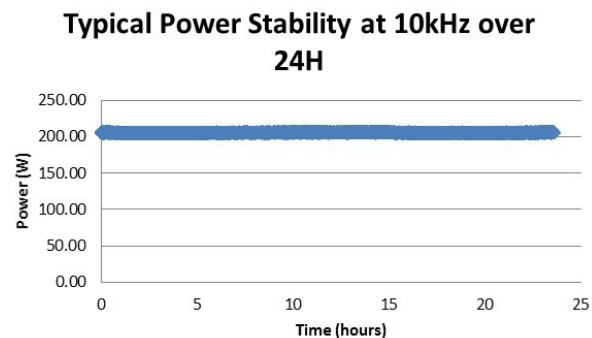
# ETNA HP

## Diode-Pumped Compact Laser Series

### Applications

- Femtosecond amplifier pumping
- ITO ablation
- Si annealing
- Laser OLED Lift-Off
- CFRP Machining
- Micromachining
- Instrumentation

### Long term stability of ETNA High M<sup>2</sup> over 30 hours



### Options

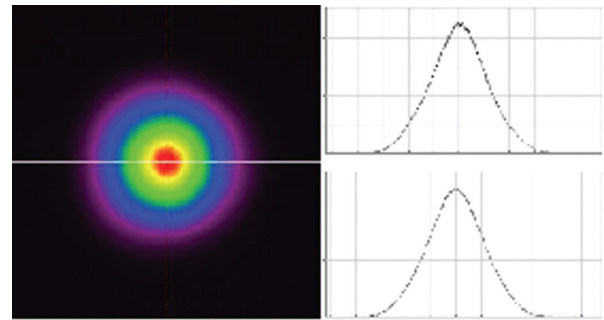
Fibered module for industrial applications including:

- Calibrated power measurement
- Computer controlled power attenuation (5-99%)
- Fiber optic injection (compatible with industrial fiber optics)
- Security shutter / Water cooled beam dump

### Physical Characteristics (L x W x H)

<b>Power supply</b>	32.68 x 23.62 x 31.50 in	83 x 60 x 80 cm
<b>Cooling unit</b>	32.68 x 17.32 x 23.62 in	83 x 44 x 60 cm
<b>Laser Head</b>	42,52 x 11.22 x 8.39 in	108 x 28.5 x 21.3 cm

### Typical ETNA HP beam profile at 532 nm



### Features and Benefits

- High Green power with reliability
- Outstanding stability
- Compatible with industrial environment
- Fiber output available

### Specifications

Version	ETNA IR	ETNA Low M <sup>2</sup>	ETNA High M <sup>2</sup>
Wavelength (nm)	1064	532	532
Repetition rate (kHz) <sup>(1)</sup>	4 to 40	8 to 40	4 to 20
Energy per pulse (mJ)	> 22	> 15	> 17
Average power (W) <sup>(2)</sup>	> 220	> 150	> 170
Typical pulse width (ns)	85	50	60
Pulse to pulse energy stability (% rms)	< 1.0		
Typical M <sup>2</sup>	20 ± 2.5	15 ± 2.5	25 ± 2.5
Beam pointing stability (μrad)	+/- 30		
Typical 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

<sup>(1)</sup> Factory preset at one repetition rate <sup>(2)</sup> Other average powers available on request

### Utilities and Environment Requirements

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

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