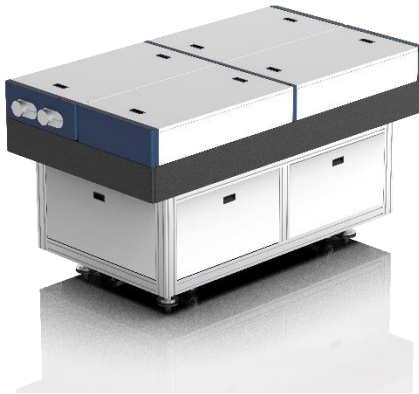


LAMBER series



High Energy Pulsed Nd:YAG Laser



LAMBER laser systems offer up to 50J Q-switched linear polarized output with RS232 software control. High energy and nanosecond pulse duration provide high intensity pulses, low transverse field modulations to have a rather uniform energy distribution.

FEATURES

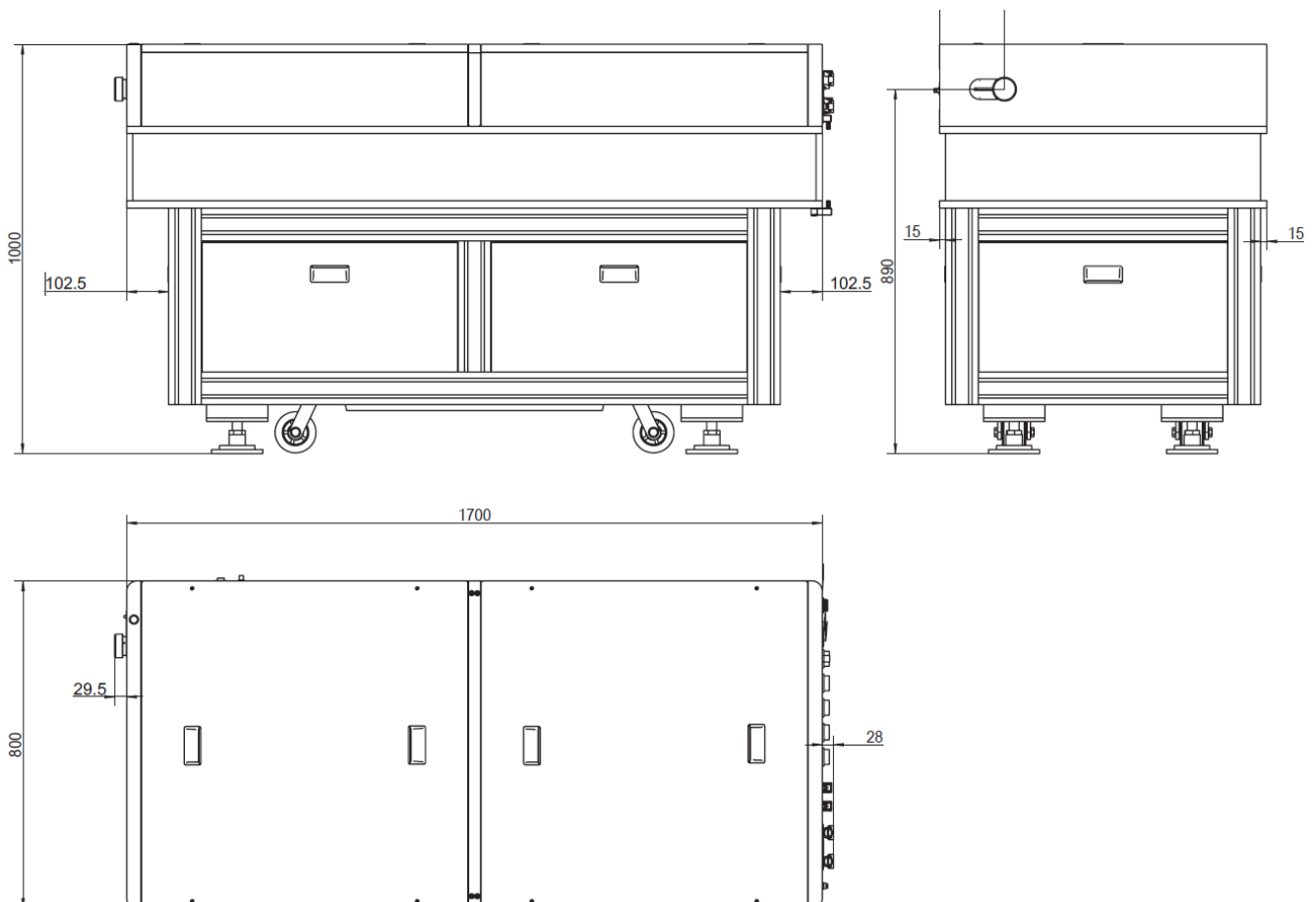
- **8-50J** at 1064nm / Harmonics from 532nm to 355nm
- **10 / 5 / 1Hz** repetition rate / **8-25 ns** pulse duration
- Incorporate Gaussian Mirror to provide outstanding Top hat spatial profile
- Compact and rugged industrial laser head design
- Injection seeded single longitudinal mode (SLM) option
- Output Faraday rotation isolator option

APPLICATIONS

- Laser shock peening processing
- Pump laser for TW and PW systems
- Large area ablation
- Plasma physics
- Silicon annealing

LAMBER-20 Laser Head Mechanical Specifications

Unit:mm



LAMBER series Specifications



High Energy Pulsed Nd:YAG Laser

Beam characteristics

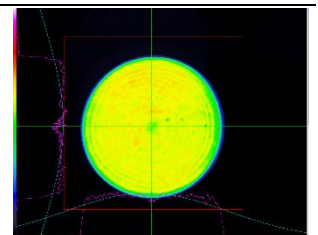
Version	LAMBER-08	LAMBER-10	LAMBER-12	LAMBER-15	LAMBER-20	LAMBER-25	LAMBER-H30	LAMBER-H40	LAMBER-H50
Repetition Rate ¹ (Hz)	1-10Hz				1-5Hz				
Energy (J)									
1064nm	8	10	12	15	20	25	30	40	50
532nm	5	6.5	8	10	12.5	15	20	25	30
355nm	2	2.5	3	4			9		
266nm	Custom								
Energy Stability RMS (%)									
1064nm	<0.7%(over 8 hours)								
532nm	<1.2%								
355nm	<2.5%								
Pulsewidth FWHM ² (ns)	8-25ns @1064nm(18-25ns optional for LSP application with rise time<5ns)								
Divergence ³ (mrad)	<0.5mrad								
Pointing Stability ⁴ (μrad)	<20μrad								
Timing Jitter RMS ⁵ (ns)	<0.5ns								
Beam Diameter (mm)	~20	~23	~25	~27	~32	~36	~40	~45	~50
Beam Spatial Profile	Top hat								
Peak to Average	<1.5:1@1064nm								
Near Field Fit to Gaussian<1m	70%								
Far Field Fit to Gaussian (∞)	95%								
Beam Circularity	>95%								
Polarization	linear								
Linewidth (cm ⁻¹)									
Standard	1								
Injection Seeded SLM ⁶	0.005								

General characteristics

Flashlamp life time	>50 million shots
AC Input	220 or 380 VAC ±5% 50-60Hz
Power Consumption	<10kW (typical 12J at 5Hz)
Operating Conditions	Temperature 5-35°C Humidity <80%

NOTES

- 1.All specifications at 1064nm and maximum repetition rate unless otherwise noted.
- 2.Full width at half maximum.
- 3.Full angle for 86.5% of energy.
- 4.Maximum deviation from beam mean centroid.
- 5.With respect to external trigger.
- 6.Injection seeded version reduces energy by 10%.



China

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