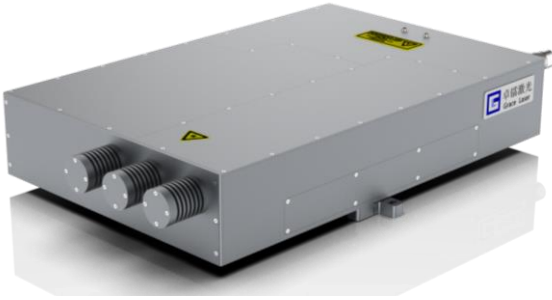


BLAZER-P series

High energy picosecond mode-locked laser



FEATURES

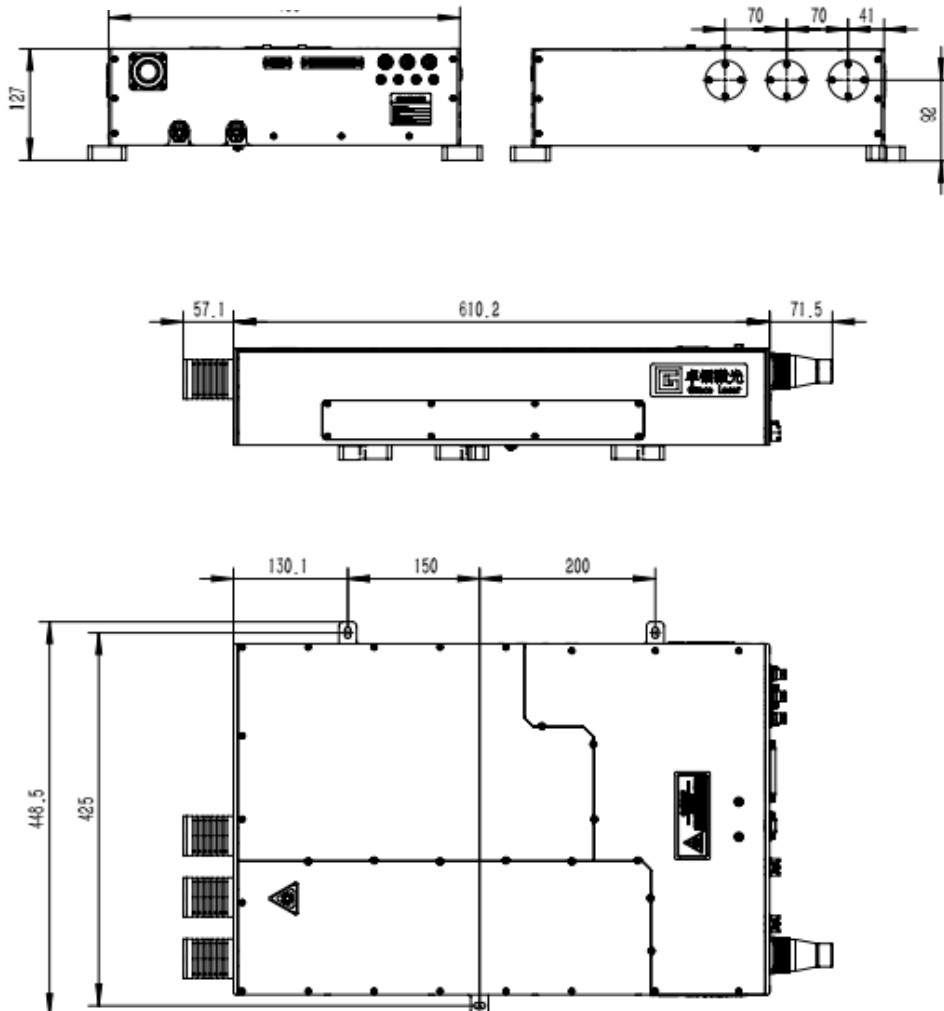
- 1-200mJ at 1064nm / Harmonics from 532nm to 266nm
- 1Hz-10kHz repetition rate / 25 ps pulse width
- High beam quality $M^2 < 1.6$
- Standard pulse width 25ps, 100ps option
- Ext. triggering jitter <4ns, Int. Triggering jitter <100ps
- RS232 interface for remote operation

BLAZER-P laser series inherit the robust and hermetically sealed DPSS master oscillator design of BLAZER series. Diode pumped regenerative amplifier and flash lamp pumped energy amplifier produce up to 200mJ picosecond pulses. 24/7 rugged industrial design improves laser reliability and reduces running costs.

APPLICATIONS

- Non-linear optics
- Micromachining
- Pump source
- Satellite laser ranging

BLAZER-50P Laser Head Mechanical Specifications



BLAZER-P series Specifications

High energy picosecond mode-locked laser

Beam characteristics

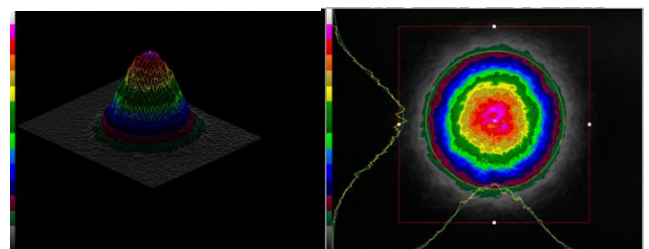
| Version | BLAZER-2P | | BLAZER-50P | BLAZER-100P | BLAZER-200P |
|------------------------------|---|--------|------------|-------------|-------------|
| Repetition Rate ¹ | 1-1kHz | 1-10Hz | 1-10Hz | | |
| Repetition options | 10kHz | / | | | |
| Pulse energy | | | | | |
| 1064nm | 1.6mJ | 1.8mJ | 50mJ | 100mJ | 200mJ |
| 532nm | 1.0mJ | 1.2mJ | 25mJ | 50mJ | 100mJ |
| 355nm | 0.6mJ | 0.5mJ | 15mJ | 30mJ | 60mJ |
| 266nm | 0.2mJ | 0.2mJ | 5mJ | 10mJ | 20mJ |
| Energy stability (RMS) | | | | | |
| 1064nm | <1% | | | | |
| 532nm | <2% | | | | |
| 355nm | <3% | | | | |
| 266nm | <4% | | | | |
| Beam Spatial Profile | TEM ₀₀ (M ² <1.6) | | | | |
| Pulse width ² | 25±3ps | | | | |
| Polarization Ratio | >100:1 | | | | |
| Beam Circularity | >85% | | | | |
| Pointing Stability | <20μrad | | | | |
| Beam Divergence ³ | <1mrad | | <0.5mrad | | |
| Beam Diameter ⁴ | ~2mm | ~9mm | ~13mm | ~18mm | |

General characteristics

| | |
|----------------------|----------------------------------|
| Flashlamp lifetime | >5×10 ⁷ |
| AC Input | 220 VAC ±5% 50-60Hz |
| Power Consumption | <1.5kW |
| Cooling Type | Closed-loop water cooling |
| Operating Conditions | Temperature 5-35°C Humidity <80% |
| Warm-Up Time (mins) | <30mins |

NOTES

1. Pulse energy at 10kHz 1064nm>0.7mJ;532nm>0.5mJ;355nm>0.25mJ;266nm>0.1mJ
2. Pulse width is customizable, up to 100ps
3. Full angle for 86.5% of energy.
4. Output of laser head at 1064nm.



Beam profile

China

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