

## TINY series

### Diode-pumped Nd:YAG ns-laser



*TINY series provide most compact and portable diode pumped air cooled nanosecond lasers with high performance and at a very reasonable price. Diode pumping reduces size, improves lifetime, and eliminates maintenance requirements.*

#### FEATURES

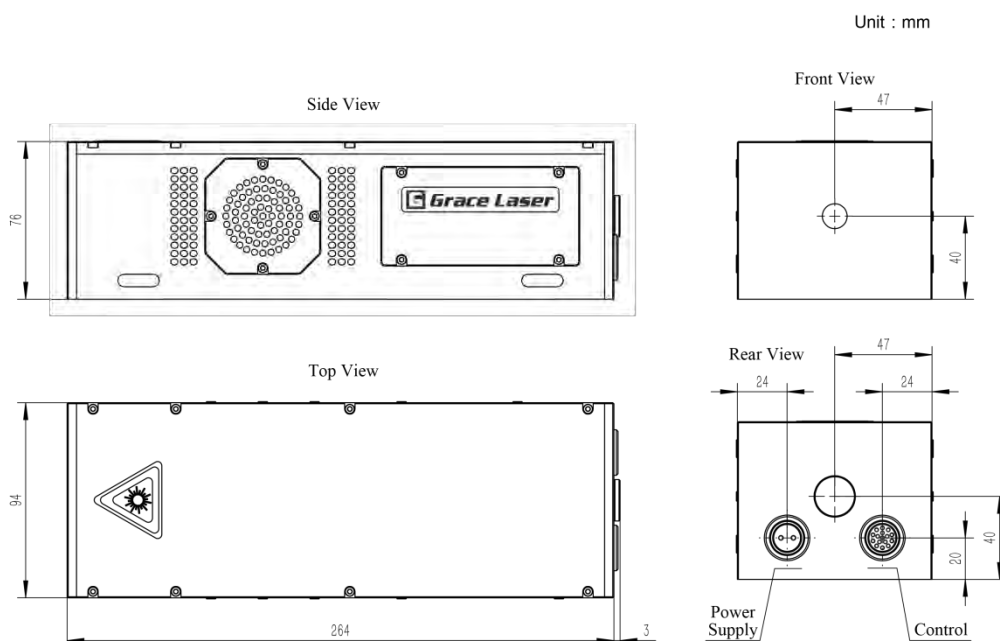
- Air cooled compact design-no water required
- 30-120mJ at 1064nm / Harmonics from 532nm to 266nm
- 10-50 Hz repetition rate / 8-10 ns pulse duration
- Compact and rugged resonator structure ensures long-term thermal and mechanical stability
- Long lifetime over 1 billion shots
- RS232 interface for remote operation

#### APPLICATIONS

- LIDAR
- LIBS
- Remote sensing
- Ablation
- Mass spectroscopy

#### TINY-80 Laser Head

#### Mechanical Specifications



# TINY series Specifications



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### Beam characteristics

Version	TINY-30	TINY-50	TINY-80	TINY-100	TINY-120
Repetition Rate <sup>1</sup> (Hz)	10-50Hz	10-30Hz	10-20Hz		
Energy (mJ)					
1064nm	30	50	80	100	120
532nm	15	25	40	50	60
355nm	7	12	20	25	30
266nm	4	6	10	12	15
Energy Stability RMS (%)					
1064nm	<0.7%				
532nm	<1.2%				
355nm	<1.7%				
266nm	<2.8%				
Power Drift <sup>2</sup> (%)					
1064nm	3%				
532nm	5%				
355nm	8%				
266nm	10%				
Pulsewidth FWHM <sup>3</sup> (ns)	8-10ns @1064nm				
Divergence <sup>4</sup> (mrad)	<3mrad				
Beam Pointing Stability <sup>5</sup> (μrad)	<20μrad				
Timing Jitter RMS <sup>6</sup> (ns)	<0.5ns				
Beam Diameter (mm)	~3	~4	~5	~6	~6
Transverse Mode <sup>7</sup>	Multimode (GRM mode option)				
Polarization	linear				
Warm Up Time (min)	<10mins				

### General characteristics

AC Input	220 VAC ±5% 50-60Hz
Power Consumption	<200W (typical 80mJ at 10Hz)
Operating Conditions	Temperature 10-30°C Humidity <80%

#### NOTES

- All specifications at 1064nm and 10Hz repetition rate unless otherwise noted.
- Average in 8 hours with room temperature variation  $\delta T < 3^{\circ}\text{C}$ .
- Full width at half maximum.
- Full angle for 86.5% of energy.
- Represents RMS value deviation from beam mean centroid.
- With respect to external trigger.
- GRM resonator mode or stable multimode option. Stable version may operate over a wider range of repetition rate and higher output energy compared with GRM mode.

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