

## TINY series

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



#### FEATURES

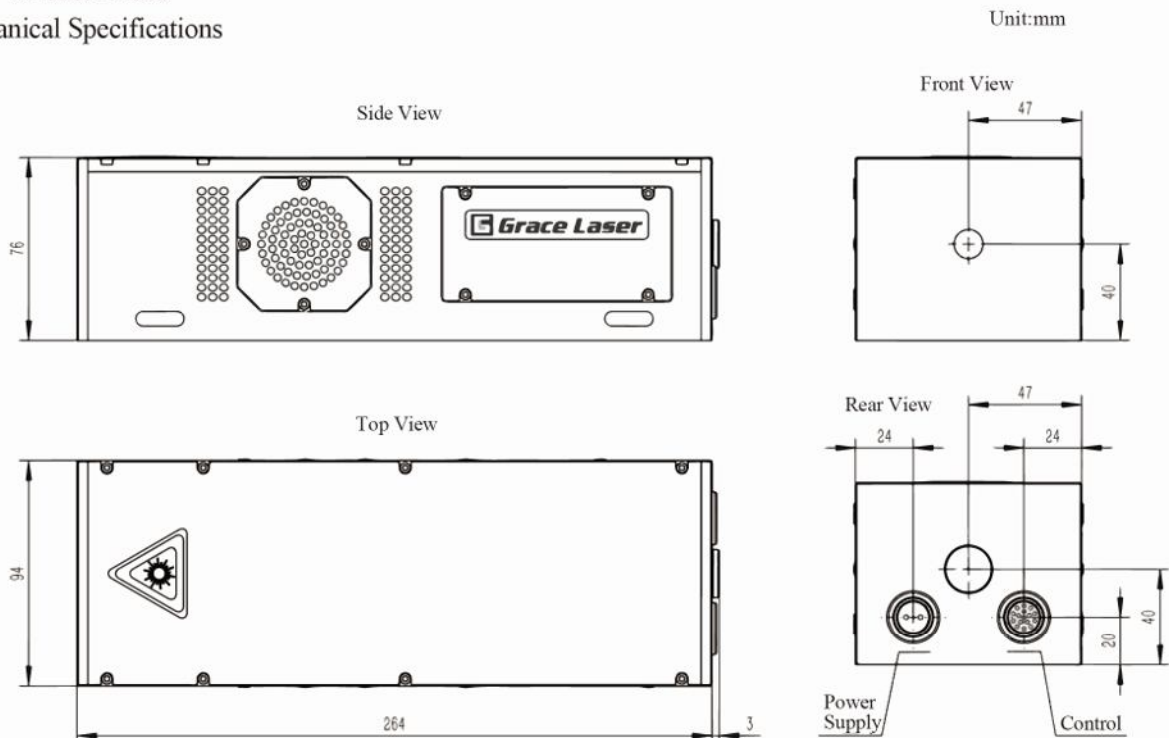
- Air cooled compact design-no water required
- 30-80mJ at 1064nm / Harmonics from 532nm to 266nm
- 10-50 Hz repetition rate / 8-10 ns pulse duration
- Compact and rugged resonator structure ensures long-term thermal and mechanical stability
- Long lifetime over 1 billion shots
- RS232 interface for remote operation

#### APPLICATIONS

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

*TINY 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.*

#### TINY-80 Laser Head Mechanical Specifications



# TINY series Specifications



## Diode-pumped Nd:YAG ns-laser

### Beam characteristics

Version	TINY-30	TINY-50	TINY-80
Repetition Rate <sup>1</sup> (Hz)	10-50Hz	10-30Hz	10-20Hz
Energy (mJ)			
1064nm	30	50	80
532nm	18	30	50
355nm	7	12	20
266nm	4	6	10
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)	50μrad		
Timing Jitter RMS <sup>6</sup> (ns)	< 1ns		
Beam Diameter (mm)	~5	~5	~6
Transverse Mode <sup>7</sup>	Multimode (GRM mode option)		
Polarization	linear		
Warm Up Time (min)	< 10mins		

### NOTES

- 1.All specifications at 1064nm and 10Hz repetition rate unless otherwise noted.
- 2.Average in 8 hours with room temperature variation  $\delta T < 3^{\circ}\text{C}$ .
- 3.Full width at half maximum.
- 4.Full angle for 86.5% of energy.
- 5.Represents RMS value deviation from beam mean centroid.
- 6.With respect to external trigger.
- 7.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.

### General characteristics

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

### China

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