# **TERRA**

# Diode-pumped Nd:YLF laser, kHz repetition rates



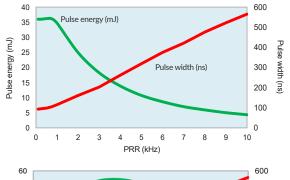


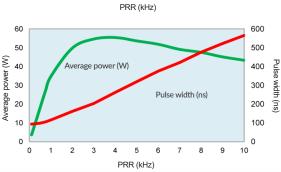
> 30 mJ at 1 kHz

**Performances** 

- Average power > 50 W @ 3 kHz
- Repetition rates up to 10 kHz
- Exceptional beam pointing and power stability
- Compact, rugged & hermetically sealed laser head
- Quick & easy diode module replacement (3 min)
- Optimized for ultrafast amplifier pumping

## Typical beam profile





Terra 527-50

# • LIF

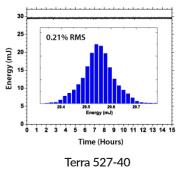
· COMBUSTION ANALYSIS

TI:SAPPHIRE PUMPING

LIDAR

- STENT/GLASS/PCB/FINE METAL **CUTTING**
- · DIAMOND/ **GEMSTONE PROCESSING**

### Typical energy stability



# www.quantel-laser.com



# 03/2025-REVA - Lumibird reserves the right to modify the specifications without prior notice.

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# **SPECIFICATIONS**

	Terra 527-50	Terra 527-40	Terra 527-30	Terra 527-20
Wavelength (nm)	527			
Pulse repetition rate (kHz) (1)	0.1 - 10			
Energy at 0.1 - 1 kHz (mJ)	30	25	20	15
Average power @ 3 kHz (W)	50	40	30	20
Pulse-to-pulse energy stability (% RMS)	< 0.5			
Pulse width (ns)	< 140	< 150	< 160	< 170
Beam diameter at output (mm) (2)	~ 2.5			
Beam divergence (mrad) (2)		8	3	
Pointing stability (µrad RMS)		<:	25	
Time jitter (ns RMS)	< 3			
Polarization	Horizontal			
Beam quality (M²)		<	12	
Transverse mode	ММ			

All specifications at 1 kHz unless otherwise noted

- (1) Single shot to 0.1 kHz available with external trigger
- (2) Measured at 13.5 % level at output window

OTHER INFORMATION			
Power requirements	Power supply	Single phase: 200-240 VAC, 50/60 Hz Operating current: 5 A, max current: 10 A	
	Chiller	Single phase: 230 ± 10% VAC, 50/60 Hz Operating current: 10 A, max current: 15 A	
Cooling	Water to air - Water to water cooling options available		
Operating temperature	+ 15 °C to + 35 °C		
Storage temperature (1)	- 20 °C to + 50 °C		
Relative humidity	8 - 80 %, non-condensing		
Cable length (m)	3.65		
Weight (kg)	Laser head	9	
	Power supply	17.7	
	Chiller	55	
Control interface	Serial interface	RS 232	
	Rear connections	External beam enable, external trigger	
	Control software	MS Windows-based laser commander	

(1) System flushed and drained with ethylene glycol/water mixture

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Please contact Lumibird to find the best match fo your needs and compatibility between options.



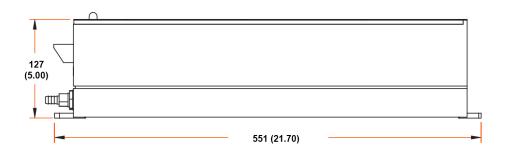
# **TERRA**

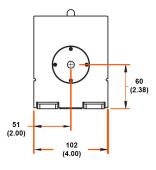
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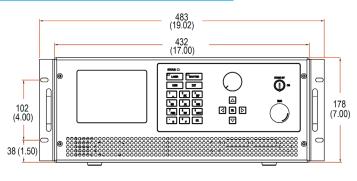
### **Laser head**

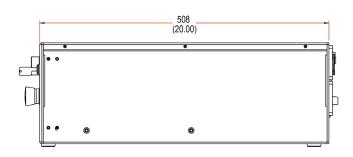
Dimensions in mm (inches)



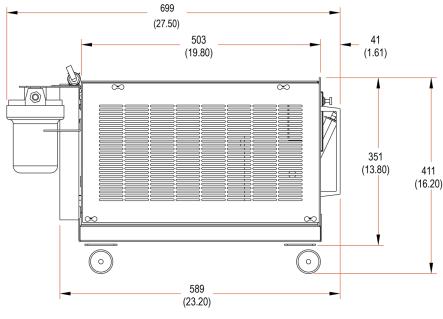


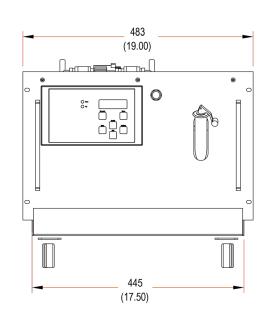
# **Power supply**





### **Chiller**







DANGER
INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

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