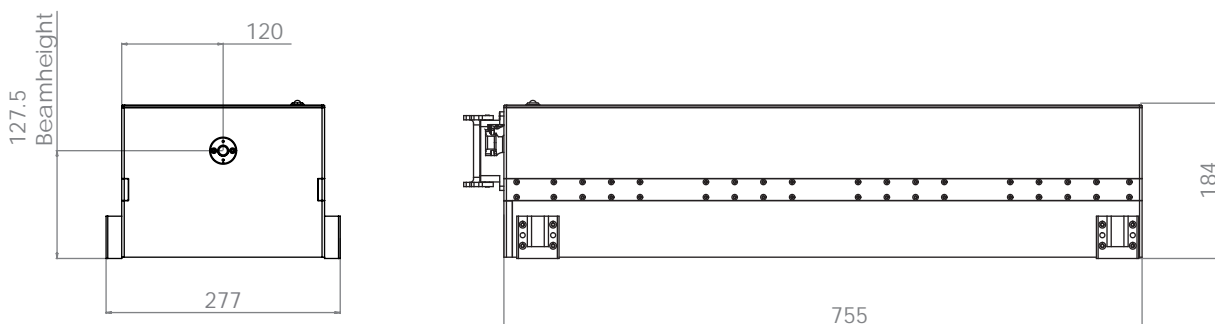


High Power Industrial Nanosecond Laser

- 100 W @ 100 kHz (1064 nm), 40-200 kHz operation
- 50 W @ 100 kHz (532 nm), 80-180 kHz operation
- High beam quality $M^2 < 1.3$
- SpotLock: Superior beam parameter and pointing stability across the complete PRF range
- Field replaceable pump diodes
- Optional Pulse-On-Demand: freely-adjustable pulse energy at all PRF and from pulse to pulse
- Industry standard form factor



The new BLAZE series of industrial nanosecond lasers offers a higher level of throughput and process stability in industrial ns-laser micromachining. This laser offers more than 100 W TEM00 power at 1064 nm, and more than 50 W at 532 nm.

The BLAZE offers a new feature: SpotLock: This stands for superior stability of focus diameter and location of its centroid (pointing stability) at all pulse repetition rates! This extraordinary stability can be achieved in a

passive, reliable way – based on novel, proprietary, smart pump technology at 888 nm for Nd:YVO4. Repetition rates up to 200 kHz allow for high throughput and cost efficiency in various industries like photo-voltaics, semicon and automotive or tool machining.

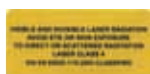
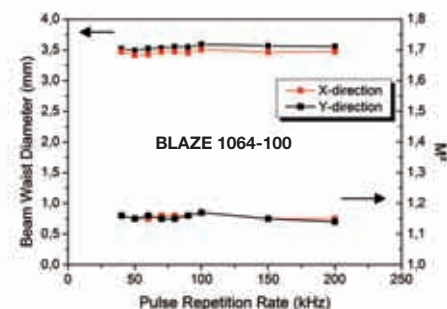
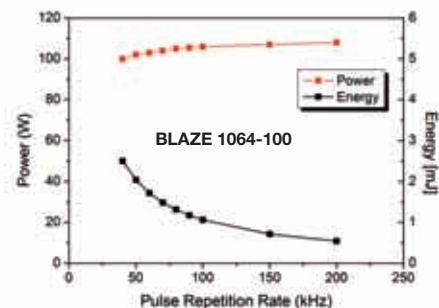
Long lifetime and low maintenance cycles in combination with service hotspots in Germany, USA and Hong Kong allow for 24/7 operation all over the world.

BLAZE

Specification

ns-LASER	BLAZE 1064-100	BLAZE 532-50
Wavelength	1064 nm	532 nm
Output power	100 W @ 100 kHz	50 W @ 100 kHz
Pulse Repetition Frequency	40-200 kHz	80-180 kHz
Spatial mode	TEM00 ($M^2 < 1.3$)	TEM00 ($M^2 < 1.3$)
Pulse duration	< 60 ns @ 100 kHz	< 60 ns @ 100 kHz
Pulse-to-pulse energy stability (RMS 1σ)	< 3 %	< 5 %
Average power stability over 8 hours (RMS 2σ)	< 1 %	< 2 %
Polarization ratio	> 100:1 Horizontal	> 100:1 Horizontal
$1/e^2$ beam diameter at output	3.5 mm	3.5 mm
Beam waist location	at output	at output
Beam divergence, full angle	< 0.6 mrad	< 0.3 mrad
Beam circularity	> 90 %	> 90 %
Waist diameter stability in full PRF range	< 5 %	< 10 %
Beam-pointing stability in full PRF range	< 2 % of divergence	< 3 %
Bore-sight accuracy	± 1 mm and ± 5 mrad	± 1 mm and ± 5 mrad
Warm-up time	< 15 min from cold start	< 45 min from cold start

Supply requirements (water-air chiller included)	
Voltage	100, 115, 208, 230 V AC switchable, 50/60 Hz
Power consumption	< 2.5 kW
Dimensions	
Laser head	755 x 277 x 185 mm (L x l x h)
Power supply	3U 19" rack mount, 500 mm deep
Chiller	6U 19" rack mount, 500 mm deep
Weight	
Laser head	40 kg
Power supply	15 kg
Chiller	42 kg
Umbilical length	5 m (other lengths on demand)



LUMERA LASER follows a policy of continuous product improvement. All specifications are subject to change without notice and can be optimized in specific configurations. Please ask for your special requirement and the services of our application lab.