LUXINAR
Industrial lasers that last

Blizz | Nanosecond lasers

Superior longevity and cost-performance ratio



High peak power and short pulse width
The high peak power combined with short pulse widths enable fast processing speeds especially on hard materials.

Superior pulse-to-pulse stability
The Blizz is the perfect tool for today's demanding applications that require high output power, excellent beam quality and superior pulse-to-pulse stability even at high repetition rates.

Multiple wavelengths
From 355 nm up to 1342 nm

Part of Pulsecore® - Every pulse predictable.

With Pulsecore®, you get absolute process stability for short- and ultrashort-pulse laser manufacturing.

High energy and short pulse widths for better process results

Blizz high-energy green lasers

The Blizz laser is the vanadate-based laser with the highest pulse energy in our line-up, engineered for superior longevity and performance. Coming with a breakthrough price-performance ratio the Blizz is made for demanding 24/7 industrial applications that require excellent performance but lowest cost-of-ownership. Based on the field-proven Nanio series the Blizz's design cuts down system costs significantly without any trade-offs in quality or laser lifetime.

Benefits

Blizz green laser – the perfect tool for demanding applications

Due to the high peak power, the Blizz series delivers higher cutting quality. Achieve precise results and reduce cutting loss to a minimum especially when working with brittle and hard materials.

Increase processing speed and quality. The Blizz green laser is highly efficient even on difficult materials like diamonds. No post-processing is required due to the excellent edge roughness after laser processing.

Applications

High peak power for hard materials

The Blizz green laser provides outstanding performance in the following applications:

- Diamond cutting
- Silicon carbide and tungsten carbide processing
- High-speed marking
- Printed circuit coard cutting, flex or rigid
- Photovoltaics
- PIV (particle image velocimenty)

Advantages

Cut down system costs without any trade-offs in quality

Next to the disruptive cost-performance ratio, the Blizz series green lasers offer:

- Highest peak power and short pulse width
- Superior pulse-to-pulse stability
- Precise pulse control
- Compact and rugged industrial design
- Rapid application integration

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Specifications

Blizz	532	
Laser		
Model	532-40-V	532-30-V
Laser medium	Nd:YVO_4	Nd:YVO_4
Central wavelength	532 nm	532 nm
Laser performance		
Nominal power	40 W @ 40 kHz	30 W @ 40 kHz
Repetition rate	single shot to 400 kHz	single shot to 400 kHz
Pulse width	< 15 ns @ 40 kHz	< 20 ns @ 40 kHz
Pulse energy	1000 µJ @ 40 kHz	750 µJ @ 40 kHz
Peak power	66.6 kW @ 40 kHz	37.5 kW @ 40 kHz
Pulse-to-pulse stability (rms)	< 1.0 % @ 40 kHz	< 1.0 % @ 40 kHz
Power stability (rms, 8 h)	< 2.0 %	< 2.0 %
Laser beam propagation		
Spatial mode	M^2 < 1.4, TEM_{00}	M^2 < 1.4, TEM_{00}
Nom. beam diameter (at waist)	0.35 mm	0.6 mm
Nom. waist location (from output)	-440 mm	-350 mm
Nom. beam diameter (at output)	1.5 mm	0.8 mm
Beam divergence (full angle)	2.5 mrad	1.6 mrad
Polarization	horizontal, > 100:1	horizontal, > 100:1
Circularity	> 90 %	> 90 %
Operating specifications		
Warm-up time	< 20 min	< 20 min
Operating voltage 19“ control unit	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz
Laser power consumption	< 500 W	< 500 W
External control	RS232, USB, TTL and analog Q-switch control	
Cooling and ambient		
Cooling	water	water
Ambient temperature	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing
Dimensions and weights		
Dimensions laser head (L × W × H)	525 × 180 × 125 mm^3	525 × 180 × 125 mm^3
Dimensions 19“ control unit (L × W × H)	358 × 447 × 44 mm^3, 1 RU high	358 × 447 × 44 mm^3, 1 RU high
Weight laser head	20 kg	20 kg
Weight control unit	6 kg	6 kg

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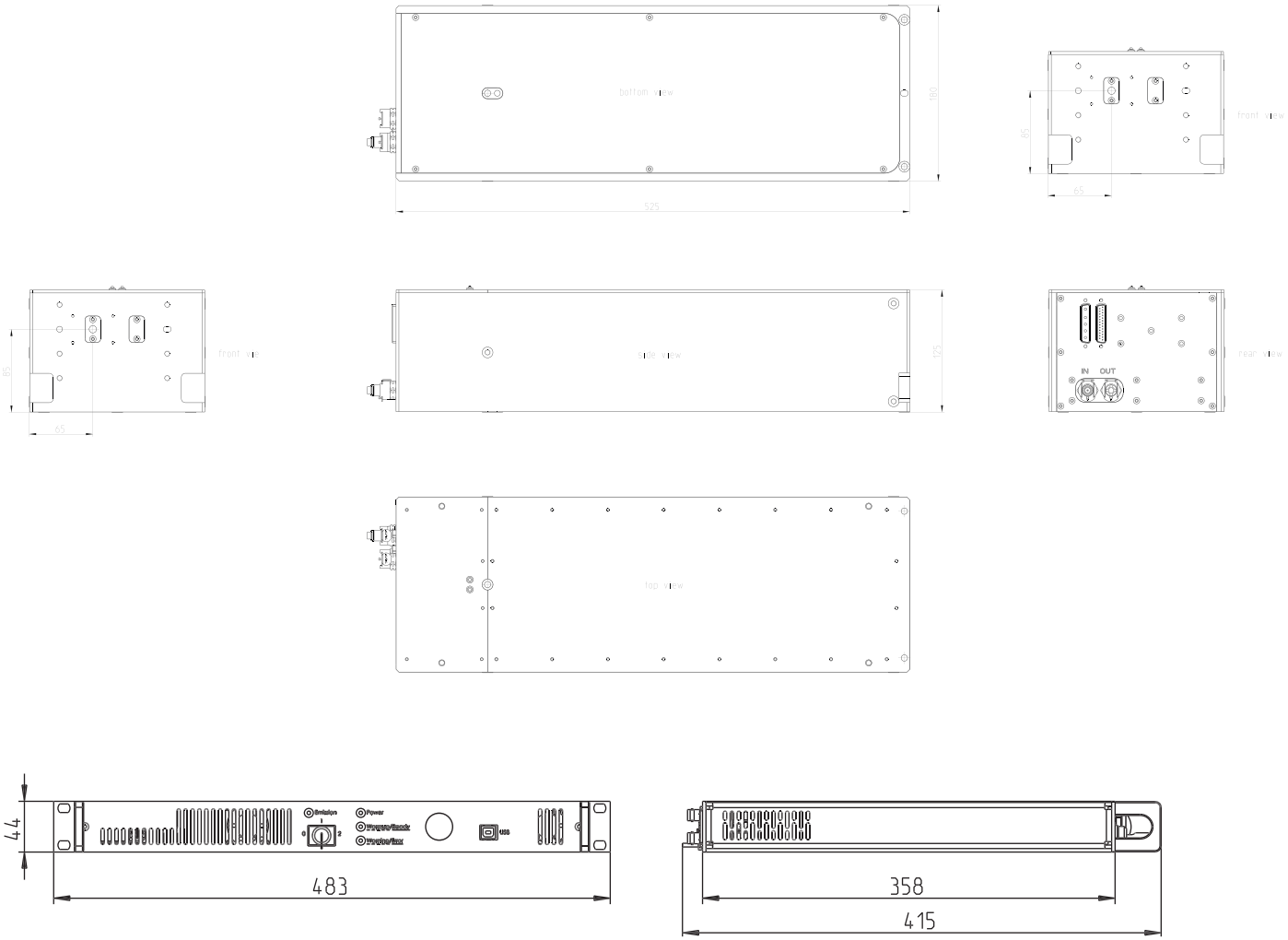
LUXINAR
Industrial lasers that last

Specifications

Blizz	1064	1342
Laser		
Model	1064-30-V	1342-8-V
Laser medium	Nd:YVO_4	Nd:YVO_4
Central wavelength	1064 nm	1342 nm
Laser performance		
Nominal power	30 W @ 80 kHz	8 W @ 80 kHz
Repetition rate	single shot to 150 kHz	single shot to 100 kHz
Pulse width	< 30 ns @ 80 kHz	< 90 ns @ 80 kHz
Pulse energy	375 µJ @ 80 kHz	100 µJ @ 80 kHz
Peak power	12.5 kW @ 80 kHz	1.1 kW @ 80 kHz
Pulse-to-pulse stability (rms)	< 1.0 % @ 80 kHz	< 5.0 % @ 80 kHz
Power stability (rms, 8 h)	< 2.0 %	< 2.0 %
Laser beam propagation		
Spatial mode	M^2 < 1.2, TEM_{00}	M^2 < 1.4, TEM_{00}
Nom. beam diameter (at waist)	0.7 mm	0.7 mm
Nom. waist location (from output)	-160 mm	-90 mm
Nom. beam diameter (at output)	0.8 mm	0.8 mm
Beam divergence (full angle)	2.3 mrad	3.4 mrad
Polarization	vertical, > 100:1	vertical, > 100:1
Circularity	> 90 %	> 90 %
Operating specifications		
Warm-up time	< 20 min	< 20 min
Operating voltage 19“ control unit	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz
Laser power consumption	< 500 W	< 500 W
External control	RS232, USB, TTL and analog Q-switch control	
Cooling and ambient		
Cooling	water	water
Ambient temperature	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing
Dimensions and weights		
Dimensions laser head (L × W × H)	525 × 180 × 125 mm^3	525 × 180 × 125 mm^3
Dimensions 19“ control unit (L × W × H)	358 × 447 × 44 mm^3, 1 RU high	358 × 447 × 44 mm^3, 1 RU high
Weight laser head	20 kg	20 kg
Weight control unit	6 kg	6 kg

All values measured after laser warm-up. Luxinar follows a policy of continuous product improvement. All specifications are subject to change without notice. Luxinar Holding GmbH is DIN EN ISO 9001 certified. Rev. 1.0, 10 / 2026 | 903-0328-00

Technical drawings



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