IRADION
CORE LASER TECHNOLOGY

BLIZZ AIR | NANOSECOND LASERS

High Power in an Air-Cooled Design

Excellent Performance
Outstanding performance for high-tech applications.

High Peak Power
High peak power for a wide range of applications like laser marking.

Lowest Cost-of-Ownership
Developed for demanding OEM applications delivering the lowest cost-of-ownership.

Exceptional Performance

Air-Cooled High Power Laser with Excellent Stability

The Blizz Air short pulse laser series was designed for high precision applications like ID card making. Each laser pulse in the process is precisely controlled to generate brilliant and noiseless pictures and state-of-the art safety features. Power meets precision in the Blizz Air models, making them ideal lasers for high-speed and high-end applications.

Applications

Short Pulse Laser with Unprecedented Longevity

- ID cards
- LED or displays manufacturing
- High-speed marking
- Printed Circuit Board (PCB) cutting, Flex or rigid

Benefits

Short Pulse Laser for High Peak Power

The Blizz Air enables high machine throughput without the need for water cooling. Get consistent and precise results at the highest speeds for material processing.

The Blizz Air short pulse laser provides consistent and precise results at highest speeds and minimal heat-affected zones (HAZ).

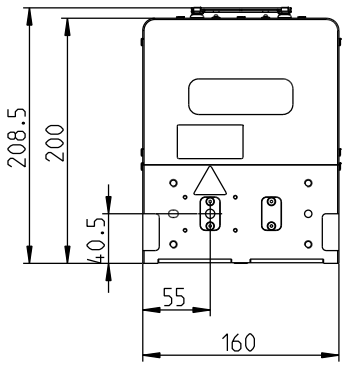
Advantages

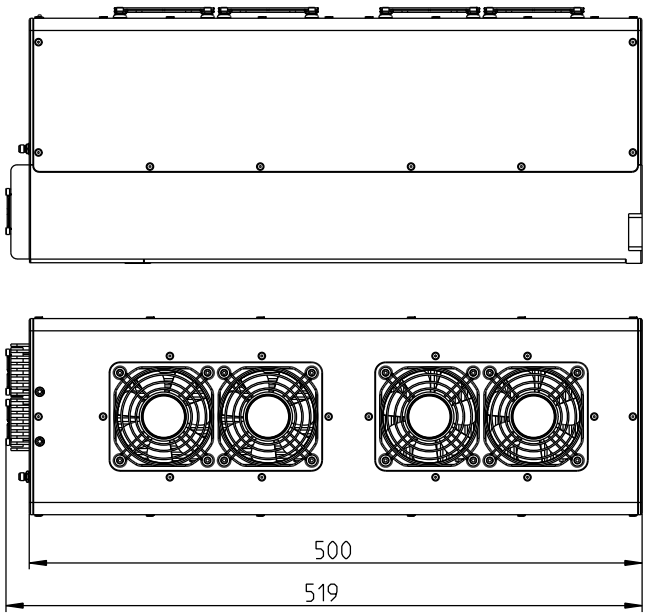
Exceptional Short Pulse Laser Performance

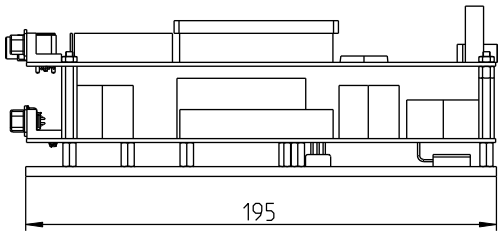
The air-cooled Blizz Air short pulse lasers offer the following advantages:

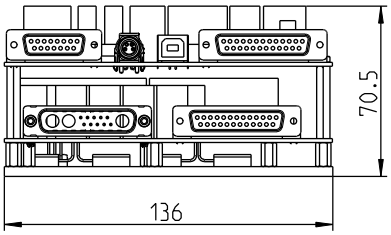
- Superior pulse-to-pulse stability
- Precise pulse control
- High peak power and short pulse width
- Compact and rugged industrial design
- Easy integration and service
- Compact 48 VDC OEM power supply

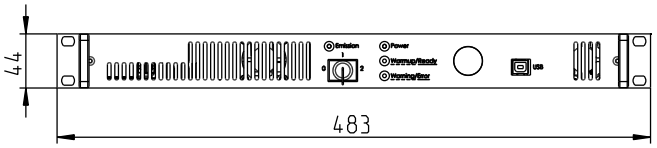
Technical Drawings

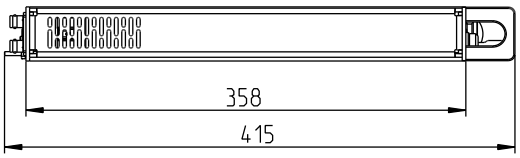












Customizations & Options

Blizz Air - Customizable Short Pulse Lasers

Optimize your Blizz Air laser for your application:

- Customized laser performance
- Laser interfacing
- Special laser developments

Tailor your laser design with the following options:

- Umbilical length 1-10 m
- 45° connectors at the laser head
- 19-inch power supply
- Beam expander box
- Variable attenuator box
- Scan head adapter flanges

Specifications

Blizz Air	532	1064
Model	532-25-V	1064-30-V
Laser Medium	Nd:YVO_4	Nd:YVO_4
Wavelength	532 nm	1064 nm
Nominal Power	25 W @ 40 kHz	30 W @ 100 kHz
Repetition Rate	Single Shot to 300 kHz	Single Shot to 300 kHz
Pulse Width	<20 ns @ 40 kHz	<40 ns @ 100 kHz
Pulse Energy	625 µJ @ 40 kHz	300 µJ @ 100 kHz
Peak Power	>31 kW @ 40 kHz	>7.5 kW @ 100 kHz
Pulse-to-Pulse Stability	<1 % @ 40 kHz	<1 % @ 100 kHz
Power Stability (rms, 8h)	<2 %	<2 %
Spatial Mode	M^2 < 1.3, TEM_{00}	M^2 < 1.2, TEM_{00}
Nominal Beam Diameter (at waist)	0.5 mm	0.7 mm
Nominal Waist Location (from output)	-400 mm	-250 mm
Beam Divergence (full angle)	1.7 mrad	2.3 mrad
Nominal Beam Diameter (at output)	1.1 mm	1.1 mm
Polarization	Horizontal, >100:1	Horizontal, >100:1
Circularity	>90 %	>90 %
Warm-up Time	<20 min	<20 min
Operating Voltage OEM P/S (standard)	48 VDC	48 VDC
Operating Voltage 19" P/S (optional)	115-230 VAC ± 10 %, 50-60 Hz	115-230 VAC ± 10 %, 50-60 Hz
Laser Power Consumption	<500 W	<500 W
Cooling	Air	Air
Ambient Temperature	15-35 °C, non-condensing	15-35 °C, non-condensing
External Control	RS232, USB, TTL, Analog Q-Switch Control	RS232, USB, TTL, Analog Q-Switch Control
Dimensions Laser Head (L x W x H)	519 x 160 x 210 mm	519 x 160 x 210 mm
Dimensions Power Supply (L x W x H)	195 x 136 x 71 mm	195 x 136 x 71 mm
Weight Laser Head	358 x 447 x 44 mm, 1 RU high	358 x 447 x 44 mm, 1 RU high
Weight Power Supply	20 kg	20 kg
Umbilical Length	2 kg/6 kg	2 kg/6 kg

Iradion follows a policy of continuous product improvement. All specifications are subject to change without notice. Rev. 1.0, 06/2017.
Iradion Laser GmbH is DIN EN ISO 9001 certified.

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