

## BLAZER series

Medium-power industrial ps-laser



*BLAZER series provide industrial grade DPSS picoseconds lasers with adjustable repetition rate and high peak power. Rugged and compact design of these lasers has been a versatile tool for a variety of industrial material processing applications.*

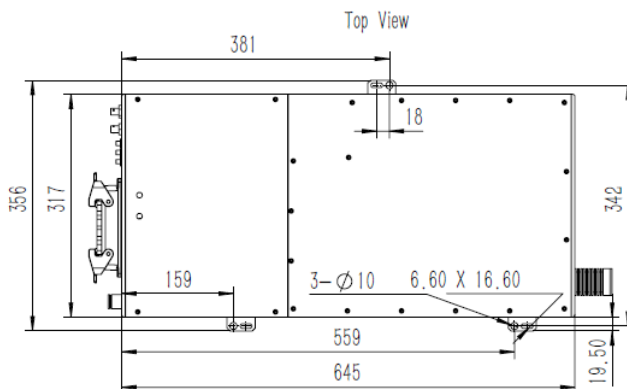
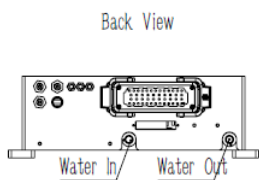
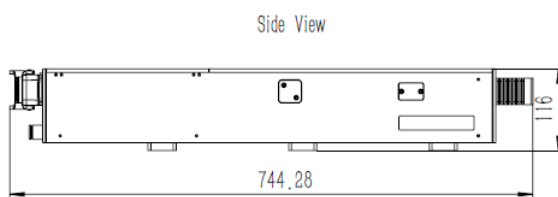
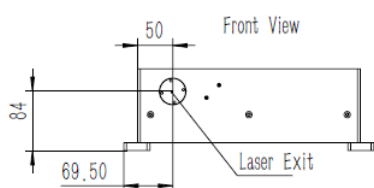
### FEATURES

- 10-40W at 1064nm / Harmonics from 532nm to 355nm
- 100-2000 kHz repetition rate / 10 ps pulse duration
- High beam quality  $M^2 < 1.3$
- Compact, sealed and rugged industrial grade design
- Fully detachable umbilical
- Burst mode
- Integrated process shutter
- PSO

### APPLICATIONS

- Cutting and drilling for Materials such as glass, sapphire
- Thin film ablation
- Micromachining
- Patterning

### BLAZER-20F/40F Laser Head Mechanical Specifications



# BLAZER series Specifications



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## Beam characteristics

Version	BLAZER-20F			BLAZER-40F		
Wavelength (nm)	1064nm (532/355 option)					
Repetition Rate <sup>1</sup> (kHz)	100 – 2000 kHz					
Average Power (W)	Average Power (W) at Different Rep. Rates <sup>2</sup>					
Wavelength (nm)	100kHz	500kHz	800kHz	400kHz	600kHz	800kHz
1064nm	13	24	26	35	40	40
532nm <sup>3</sup>	8	15	18	20	25	25
355nm	5	10	10	12	15	15
Pulse Energy (μJ)	Pulse Energy (μJ) at Different Rep. Rates					
Wavelength (nm)	100kHz	500kHz	800kHz	400kHz	600kHz	800kHz
1064nm	130	48	32.5	87.5	66.6	50
532nm	80	30	22.5	50	41.6	31
355nm	50	20	12.5	30	25	18.8
Beam Spatial Profile	TEM <sub>00</sub> (M <sup>2</sup> <1.3)					
Pulsewidth FWHM (ps)	<15ps@1064nm					
Energy Stability (RMS)	<2%					
Power Stability <sup>4</sup> (RMS)	<2%					
Polarization Ratio	>100:1					
Beam Circularity (%)	>85%					
Pointing Stability <sup>5</sup> (μrad/°C)	<50μrad/°C					
Beam Divergence <sup>6</sup> (mrad)	<1mrad					
Beam Diameter <sup>7</sup> (mm)	~2mm					

## General characteristics

AC Input	220 VAC ±5% 50-60Hz
Power Consumption	<2.5kW (typical 50W at 500kHz)
Cooling Type	Closed-loop water cooling
Operating Conditions	Temperature 15-35°C Humidity <65%
Warm-Up Time (mins)	<40mins

### NOTES

- 1.All specifications at 1064nm and 500kHz repetition rate unless otherwise noted.
- 2.Please provide operating Rep. rate for optimum output power.
- 3.A lower 532nm output power version to be offered if need both 532nm &355nm.
- 4.Average in 8 hours with room temperature variation  $\delta T < 3^{\circ}C$ .
- 5.Maximum deviation from beam mean centroid.
6. Full angle for 86.5% of energy.
- 7.Output of laser head at 1064nm.

### China

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