

MOPA 1064-650

Diode pumped passively Q-switched solid state laser

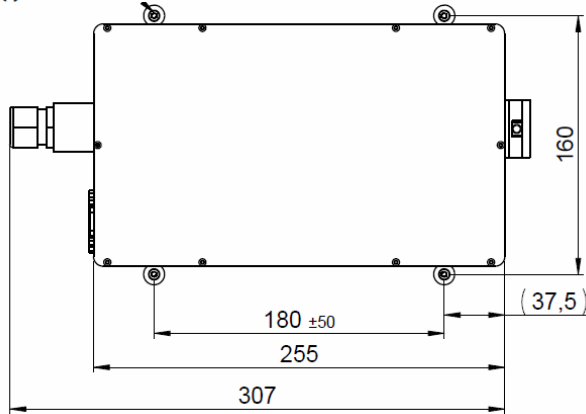
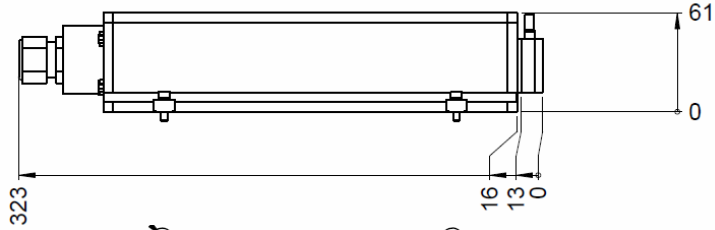
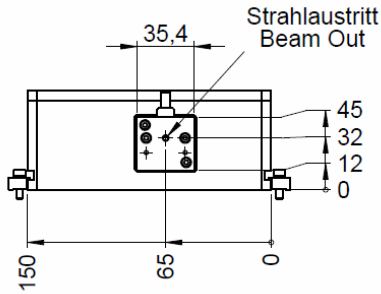
- 1064 nm
- Single Pulse
- ≤ 1.6 ns
- 1 – 1000 Hz
- > 650 μ J
- External / Internal Trigger Mode



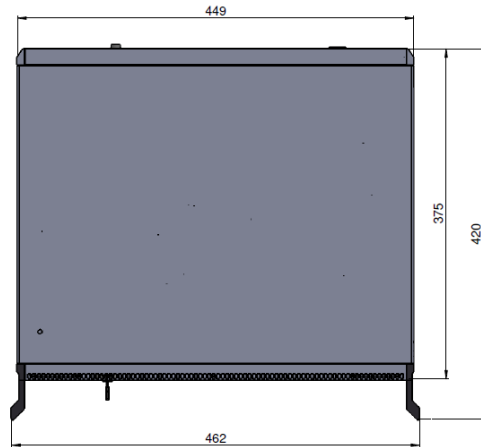
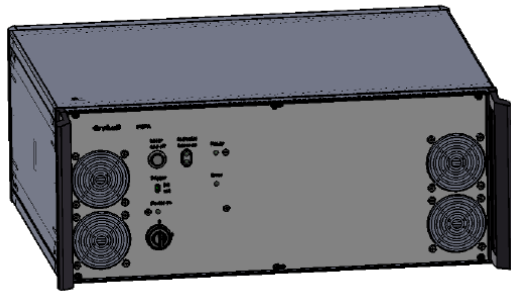
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Optical Data	Wavelength	1064 nm
	Peak Power	> 430 kW @ 1000 Hz
	Pulse Energy	> 650 μ J @ 1000 Hz
	Beam Divergence (full angle)	< 5.0 mrad
	Beam Ellipticity	$< 2:1$
	Beam Diameter	0.9 ± 0.3 mm (at laser exit)
	Spatial Mode	TEM ₀₀
	Pulse Repetition Rate (with external trigger)	1 - 1000 Hz
	Pulse Width (FWHM)	≤ 1.6 ns
	Polarization Ratio	$> 100:1$, vertical
	Pulse Energy Drift ¹⁾	$< \pm 3$ %
	Pulse-to-Pulse Energy Stability ²⁾	< 2 % rms
Laser Classification	4 / IV	
Optical Output	Free Beam	
Electrical Data	Electrical Power Consumption	< 250 W (maximum)
	Line Voltage	100 - 240 V AC (50-60 Hz)
Interface	USB	
	BNC connector for external triggering (TTL)	
	SMB connector for 24 V DC output	
Miscellaneous	Warm-up Time	< 10 min
	Operating Temperature	18 - 38 °C
	Laser Head Size	61 x 150 x 326 mm (H x W x L)
	Stand Alone Unit Size	184 x 449 x 375 mm (H x W x L)
Options	External telescope (beam expander) or multimode fiber coupling	
	Manual or electrical attenuator	
	Synchronization signal output (rise time < 2 ns)	
	Electrical beam blocker	
¹⁾ Drift over 8 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation ± 3 °C and < 3 °C/hour, with activated closed loop control for the pulse energy ²⁾ RMS over 1000 pulses after 5 min of continuous operation.		

Laser Head and Controller



Laser Head
(height = 61; width = 150; length = 255
core dimensions in mm)



Stand Alone Unit
(height = 184, width = 449; length = 375
core dimensions in mm)

Laser Safety Labels

The MOPA 1064-650 lasers are class 4 / IV according to IEC 60825-1:2014

<p>wavelength: 1064 nm max. output: 2000 μJ pulse duration: < 1.7 ns max. repetition rate: 1000 Hz</p> <p><small>Complies with IEC 60825-1:2014 Complies with 21CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001</small></p>	<p>DANGER - INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION</p> <p>CLASS 4 LASER PRODUCT</p>	<p>IS EMITTED FROM THIS APERTURE</p> <p>LASER RADIATION IS EMITTED FROM THIS APERTURE</p>
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