

# MOPA 532-250

Diode pumped passively Q-switched solid state laser

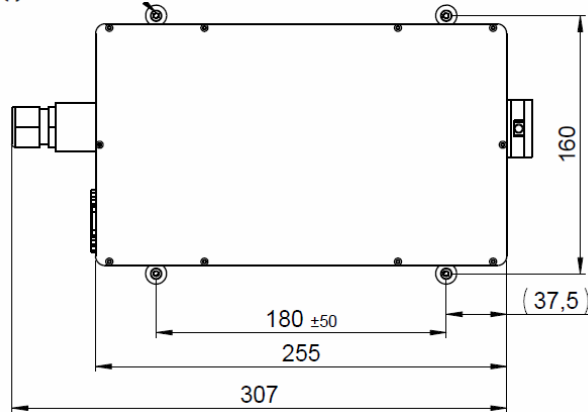
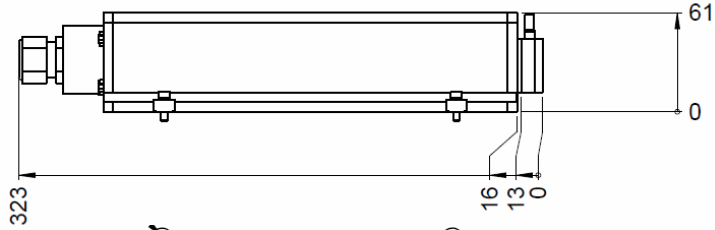
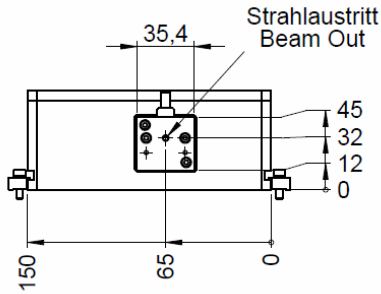
- 532 nm
- Single Pulse
- $\leq 1.4$  ns
- 1 – 1000 Hz
- $> 250$   $\mu$ J
- External / Internal Trigger Mode



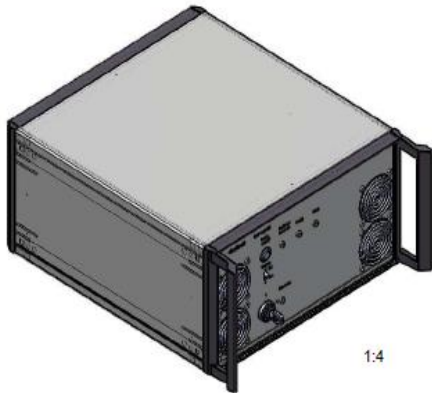
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<b>Optical Data</b>	Wavelength	532 nm
	Peak Power	$> 200$ kW @ 1000 Hz
	Pulse Energy	$> 250$ $\mu$ J @ 1000 Hz
	Beam Divergence (full angle)	$< 3.0$ mrad
	Beam Ellipticity	$< 2:1$
	Beam Diameter	$0.6 \pm 0.3$ mm (at laser exit)
	Spatial Mode	TEM <sub>00</sub>
	Pulse Repetition Rate (with external trigger)	1 - 1000 Hz
	Pulse Width (FWHM)	$\leq 1.4$ ns
	Polarization Ratio	$> 100:1$ , vertical
	Pulse Energy Drift <sup>1)</sup>	$< \pm 3$ %
	Pulse-to-Pulse Energy Stability <sup>2)</sup>	$< 2$ % rms
Laser Classification	4 / IV	
<b>Optical Output</b>	Free Beam	
<b>Electrical Data</b>	Electrical Power Consumption	$< 250$ W (maximum)
	Line Voltage	100 - 240 V AC (50-60 Hz)
<b>Interface</b>	USB	
	BNC connector for external triggering (TTL)	
	SMB connector for 24 V DC output	
<b>Miscellaneous</b>	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 356 x 375 mm (H x W x L)
<b>Options</b>	External telescope (beam expander) or multimode fiber coupling	
	Manual or electrical attenuator	
	Synchronization signal output (rise time $< 2$ ns)	
	Manual or electrical wavelength switch (532nm – 1064nm) or electrical beam blocker	
	<sup>1)</sup> Drift over 8 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation $\pm 3$ °C and $< 3$ °C/hour, with activated closed loop control for the pulse energy	
	<sup>2)</sup> RMS over 1000 pulses after 5 min of continuous operation.	

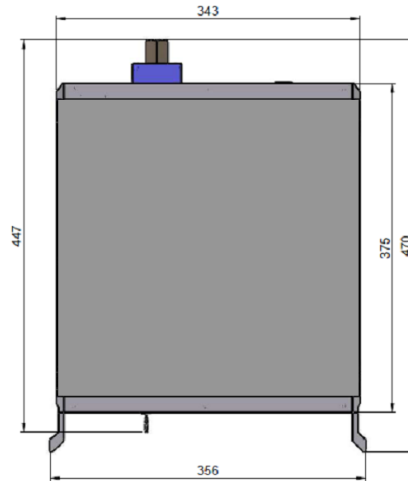
# Laser Head and Controller



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



Stand Alone Unit  
(height = 184, width = 343; length = 375  
core dimensions in mm )



## Laser Safety Labels

The MOPA 532-250 lasers are class 4 / IV according to IEC 60825-1:2014

wavelength: 532 nm max. output: 900 µJ pulse duration: < 1,5 ns max. repetition rate: 1000 Hz  <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>	DANGER - VISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION  CLASS 4 LASER PRODUCT	LASER RADIATION IS EMITTED FROM THIS APERTURE
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