

PRELIMINARY

eMOPA 213-20

Diode pumped passively Q-switched solid state laser

- 213 nm
- Single Pulse
- < 1.0 ns
- single shot (pulse on demand) – 1 kHz
- > 20 μ J
- External/ Internal Trigger



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Optical Data	Wavelength	213 nm
	Peak Power	> 20 kW @ 1000 Hz
	Pulse Energy	> 20 μ J @ 1000 Hz
	Beam Divergence (full angle)	< 3 mrad
	Beam Ellipticity	< 3:1
	Beam Diameter	0.6 \pm 0.3 mm (at laser exit)
	Spatial Mode	TEM ₀₀
	Pulse Repetition Rate (with external trigger)	single shot (pulse on demand) – 1 kHz
	Pulse Width (FWHM)	< 1.0 ns
	Polarization Ratio	> 100:1, horizontal
	Pulse Energy Drift over 6h ¹⁾	< \pm 5 %
	Pulse-to-Pulse Energy Stability ²⁾	< 2%
Laser Classification	4 / IV	
Optical Output	Free Beam	
Electrical Data	Electrical Power Consumption	< 100 W
	Line Voltage	90 - 265 V AC (50-60 Hz)
Interface	USB / RS232	
	BNC connector for external triggering (TTL)	
	SMB connector for 24 V DC output	
Miscellaneous	Warm-up Time	< 10 min
	Operating Temperature	22 - 32 °C
	Laser Head Size	56 x 140 x 265 mm (H x W x L)
	Stand-Alone Unit Size	129,5 x 177 x 180 mm (H x W x L)
Options	Electrical beam blocker	
	Synchronization signal output (rise time < 1.5 ns)	

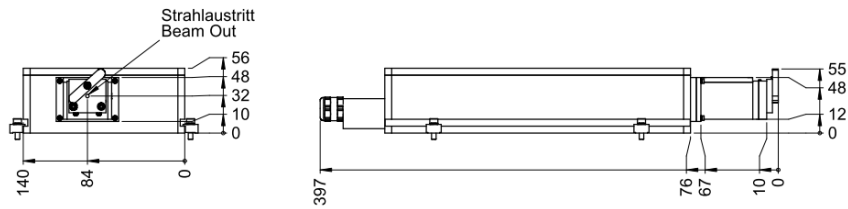
¹⁾ Averaged over 10s after 10min of continuous operation @ 1kHz activated closed loop control

²⁾ Over 1000 pulses @ 1kHz after 10min of continuous operation

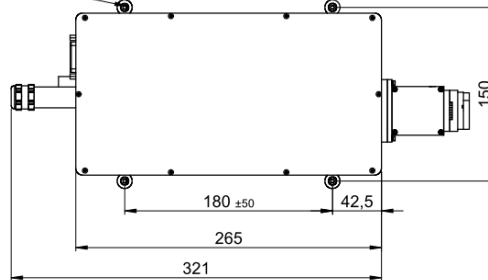
Dimensions

Laser Head:

265 x 140 x 56 mm

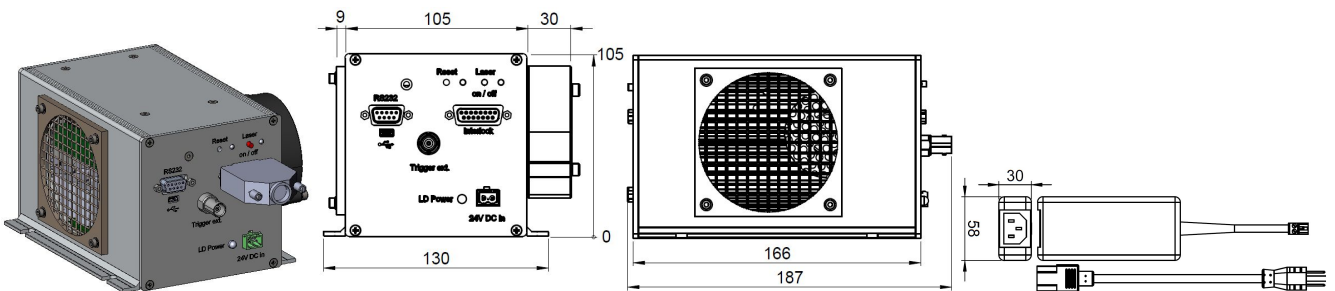


Befestigung mit / mounting with:
4xM4 DIN ISO EN 4762



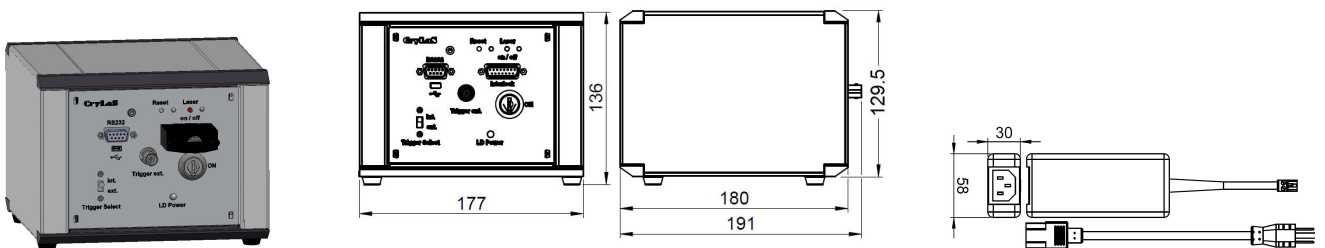
Controller OEM:

166 x 144 x 105 mm



Controller Stand-Alone:

180 x 177 x 129.5 mm



Laser Safety Labels

The eMOPA 213-20 lasers are class 4 according to IEC 60825-1

wavelength: 213 nm
max. Output: 50 µJ
pulse duration: 0.7 ns
max. repetition rate: 1000 Hz
Complies with IEC 60825-1:2007
Complies with 21 CFR 1040.10 and 1040.11 except for deviations
pursuant to Laser Notice No. 50, dated July 26, 2001

INVISIBLE
LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
BEAM CLASS 4 LASER PRODUCT



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