

FQSS 213-50

Diode pumped passively Q-switched solid state laser

- 213 nm
- single pulse
- ≤ 1.3 ns
- 1 – 30 Hz
- $> 50 \mu\text{J}$ @ 20Hz



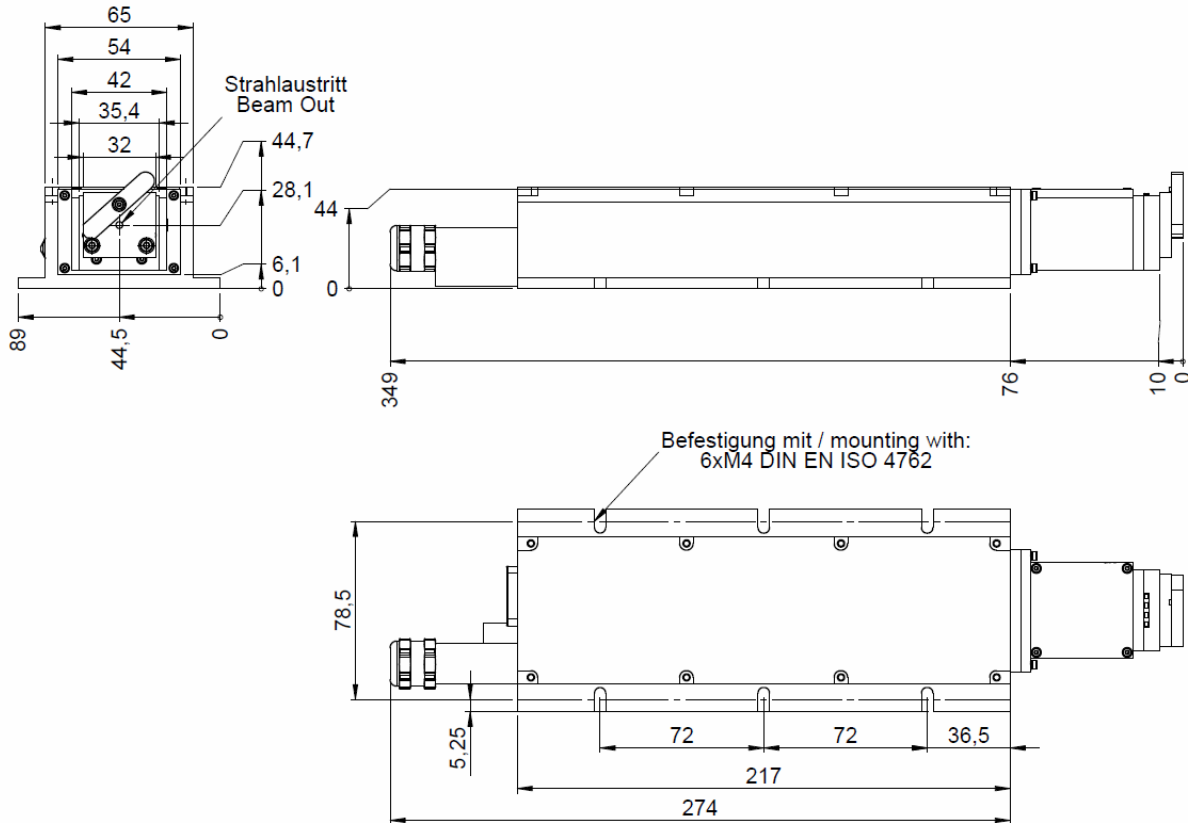
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Optical Data	Wavelength	213 nm
	Beam Divergence (full angle)	< 1.5 mrad
	Beam Ellipticity	$< 2:1$
	Beam Diameter	$450 \pm 150 \mu\text{m}$ (at laser exit)
	Peak Power	> 40 kW @ 20 Hz
	Pulse Energy	$> 50 \mu\text{J}$ @ 20 Hz
	Pulse Repetition Rate (with external trigger)	1 - 30 Hz
	Pulse Width (FWHM)	≤ 1.3 ns
	Polarization Ratio	$> 100:1$, horizontal
	Long term pulse energy stability (6 hours) ¹⁾	$< \pm 5 \%$
	Pulse-To-Pulse Stability ²⁾	$< 3 \%$ rms
	Laser Classification	4 / IV
	Residual Emission (266nm, 532nm, 1064nm)	$< 0.2 \mu\text{J}$
Optical Output	Free Beam	
Electrical Data	Electrical Power Consumption	< 90 W
	Line Voltage	100 - 240 V AC (50-60 Hz) or 24 V DC
Interface	RS 232, USB	
Miscellaneous	Warm-up Time	< 10 min
	Operating Temperature	18 - 38 °C
	Laser Head Size	283 x 65 x 45 mm (core dimensions)
Options	Manual Shutter or Electrical Beam Blocker	
	External Telescope (e.g. M=5)	
	Stand Alone system (CDRH compliant; incl. key switch, heat sink, manual beam shutter)	

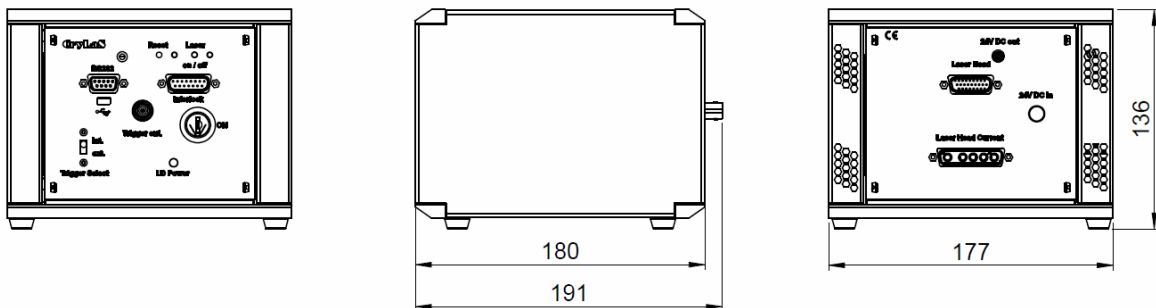
¹⁾ Drift over 6 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation < 3 °C/hour.

²⁾ RMS over 1000 pulses after 5 min of continuous operation.

Laser Head and Controller



Stand Alone Controller



Laser Safety Labels

The FQSS213-50 lasers is class 4 according to IEC 60825-1:2014

<p>wavelength: 213 nm max. output: 100 µJ pulse duration: <1.5 ns max. repetition rate: 60 Hz</p> <p>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</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</p>
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