

FDSS 532-1000

Diode pumped passively Q-switched solid state laser

- 532 nm
- single pulse
- < 1.8 ns
- 1 – 80 Hz
- > 1000 µJ



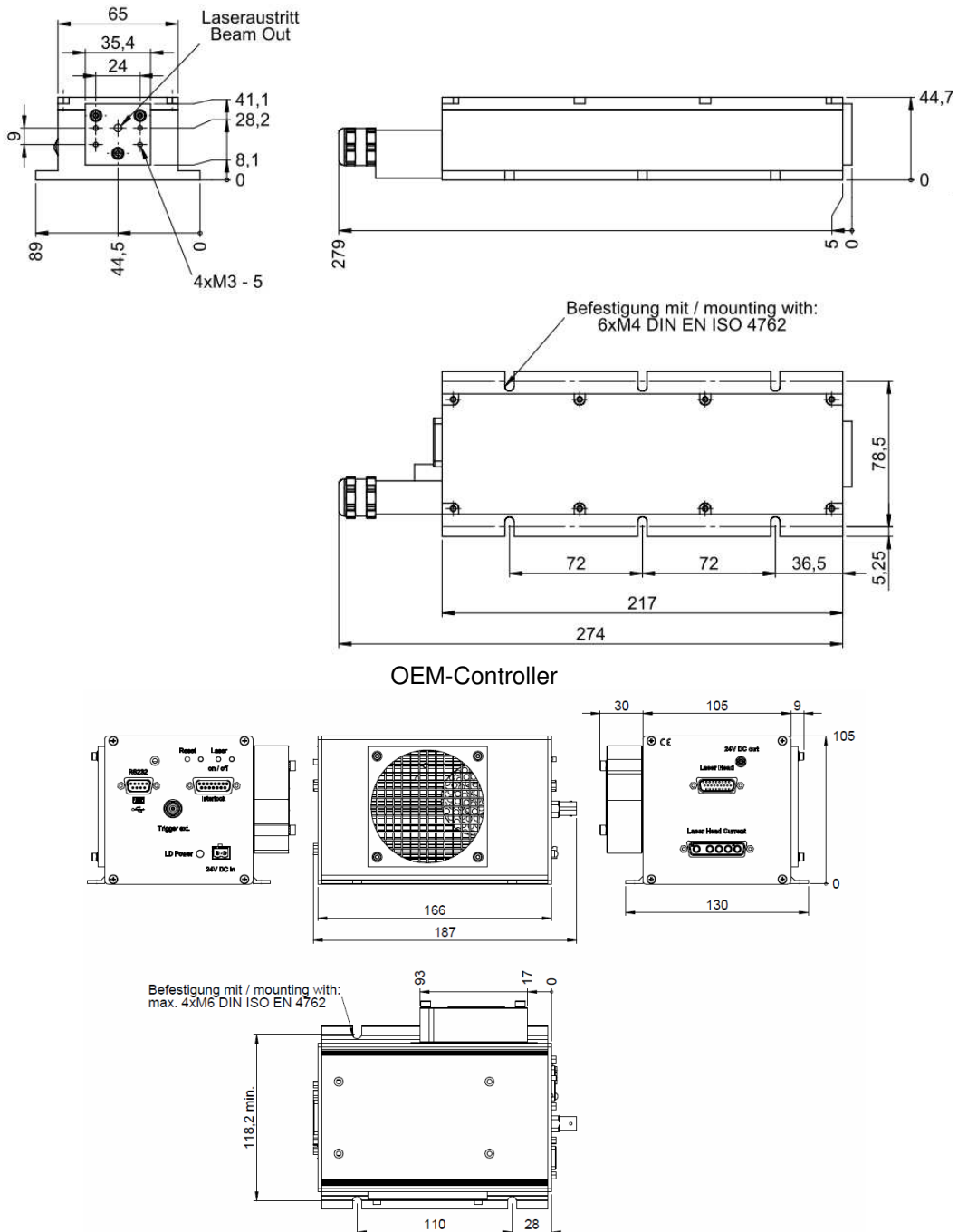
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Optical Data	Wavelength	532 nm
	Spatial Mode	TEM ₀₀
	Beam Divergence (full angle)	< 6.5 mrad
	Beam Ellipticity	< 2:1
	Waist Diameter	500 ± 150 μm (located at about 110mm inside the laser head)
	Beam Diameter	1000 ± 300 μm (at laser exit)
	Peak Power	> 550 kW @ 20 Hz
	Pulse Energy	> 1000 μJ @ 20 Hz
	Pulse Repetition Rate (with external trigger)	1 - 80 Hz
	Pulse Width (FWHM)	< 1.8 ns
	Polarization Ratio	> 100:1, vertical
	Long term pulse energy stability (6 hours) ¹⁾	< ± 5 %
	Pulse-To-Pulse Stability ²⁾	< 5 % rms
	Laser Classification	3B / IIIb
Optical Output	Free Beam	
Electrical Data	Electrical Power Consumption	< 150 W
	Line Voltage	100 - 240 V AC (50-60 Hz) or 24 V DC
Interface	RS 232, USB	
Miscellaneous	Warm-up Time	< 15 min
	Operating Temperature	18 - 38 °C
	Laser Head Size	217 x 65 x 45 mm (core dimensions)
Options	SMA-connector for fiber with core diameter ≥ 400 μm	
	Synchronization signal output (rise time < 2 ns)	
	Manual shutter or electrical beam blocker	
	Manual or electrical driven wavelength switch 532 nm / 1064 nm	
	Manual or electrical attenuator	
	External telescope (e.g. M=5)	
	Heat sink with fan (recommended for repetition rates > 20 Hz)	
	Stand Alone System (incl. key-switch, heat sink, manual shutter; CDRH compliant)	

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



Laser Safety Labels

The FDSS532-1000 lasers are class 3B / IIIb according to IEC 60825-1:2014

wavelength: 532 nm max. output: 2 mJ pulse duration: <1.8 ns max. repetition rate: 80 Hz 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	WARNING - VISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT	IS EMITTED FROM THIS APERTURE LASER RADIATION
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