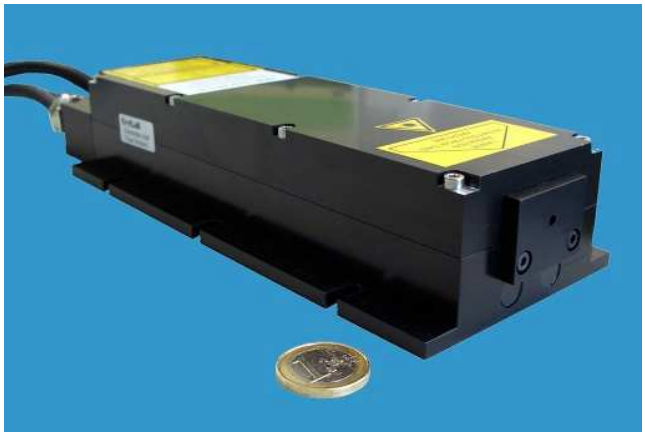
FTSS 355-50

Diode pumped passively Q-switched solid state laser

- **355 nm**
- **single pulse**
- **0.9 - 1.3 ns**
- **1 – 100 Hz (up to 1 kHz optional)**
- **> 70 µJ**



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Optical Data	Wavelength	355 nm
	Spatial Mode	TEM_{00}
	M^2	< 1.5
	Beam Divergence (full angle)	< 3.5 mrad
	Beam Ellipticity	< 2:1
	Waist Diameter	280 ± 80 µm (located at about 110mm inside the laser head)
	Beam Diameter	450 ± 150 µm (at laser exit)
	Peak Power	50 kW - 80 kW @ 1 - 100 Hz
	Pulse Energy	> 70 µJ @ 1 - 100 Hz (> 25µJ @ 1kHz option)
	Pulse Repetition Rate (with external trigger)	1 - 100 Hz
	Pulse Width (FWHM)	0.9 - 1.3 ns
	Polarization Ratio	> 100:1, vertical
	Long term pulse energy stability (6 hrs)	< ± 2 %
	Pulse-To-Pulse Stability	< 1 % rms (of pulse energy)
	Laser Classification	3B / IIIb
	Residual 532nm Emission	< 0.2 %, (0,0025 % on request)
Optical Output	Free Beam	
Electrical Data	Electrical Power Consumption	< 70 W
	Line Voltage	90 - 265 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 fibers with core diameter ≥ 70 µm	
	Synchronization signal output (rise time < 2 ns)	
	Manual shutter or electrical beam blocker	
	Manual or electrical driven wavelength switch 355 nm / 532 nm	
	Upgrade to 1 kHz repetition rate (parameters on request)	
	External telescope (e.g. M=5)	
	Manual or electrical attenuator	
	Stand Alone System (incl. key-switch, heat-sink, manual shutter; CDRH compliant)	

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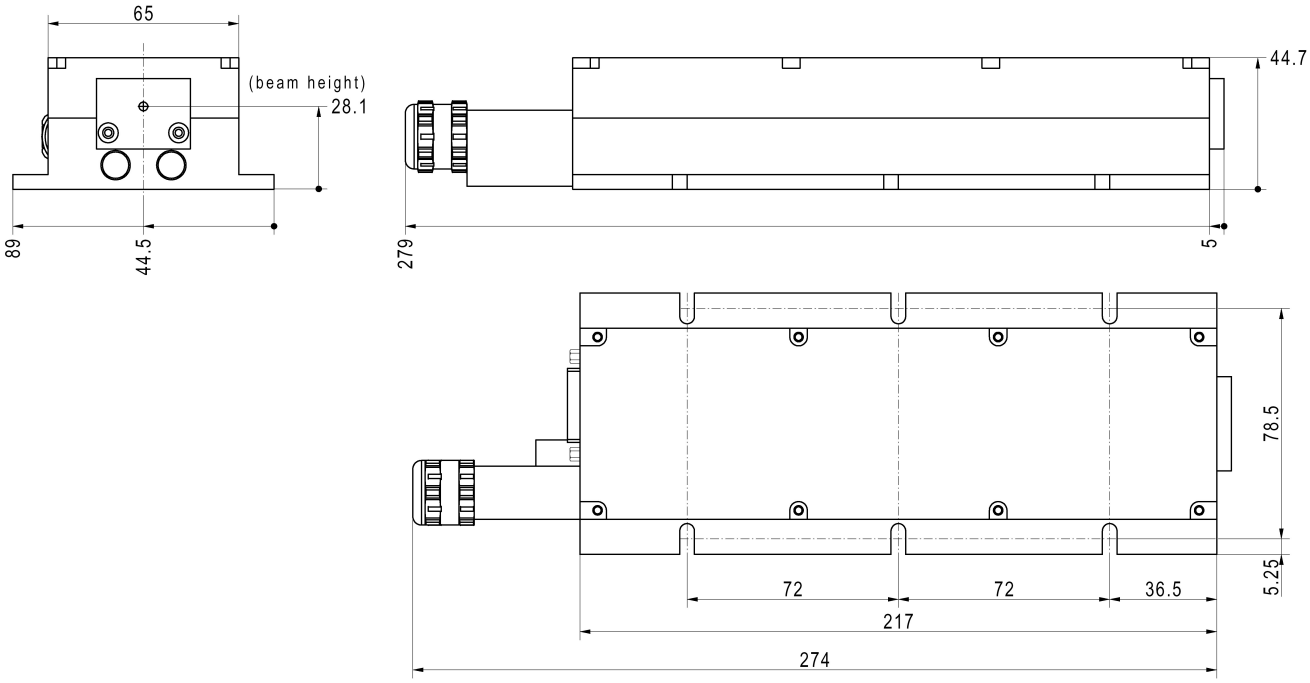
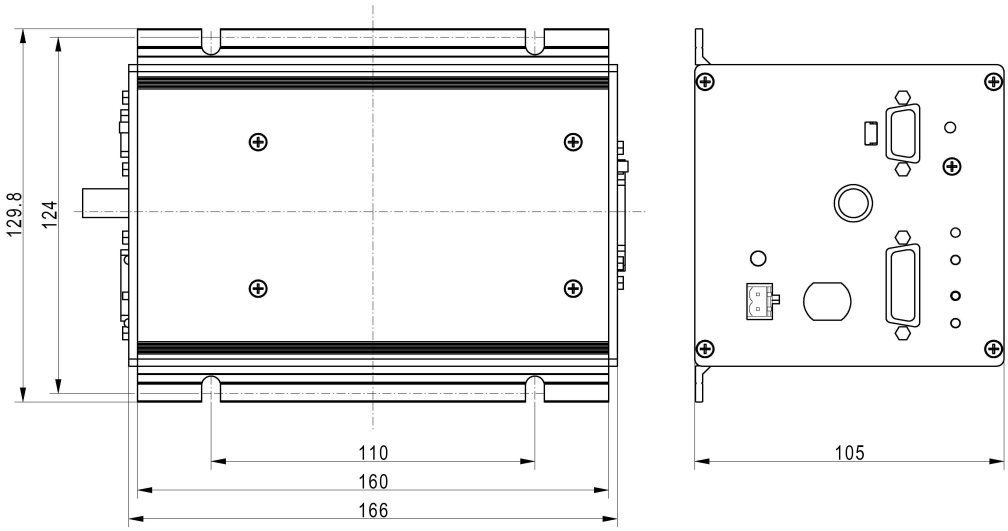
Laser Head and Controller



OEM-Controller



Laser Safety Labels

The FTSS355-50 lasers are class 3B according to IEC 60825-1:2007

wavelength:	355 nm
max. Output:	150 µJ
pulse duration:	0.9 - 1.3 ns
max. repetition rate	100 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

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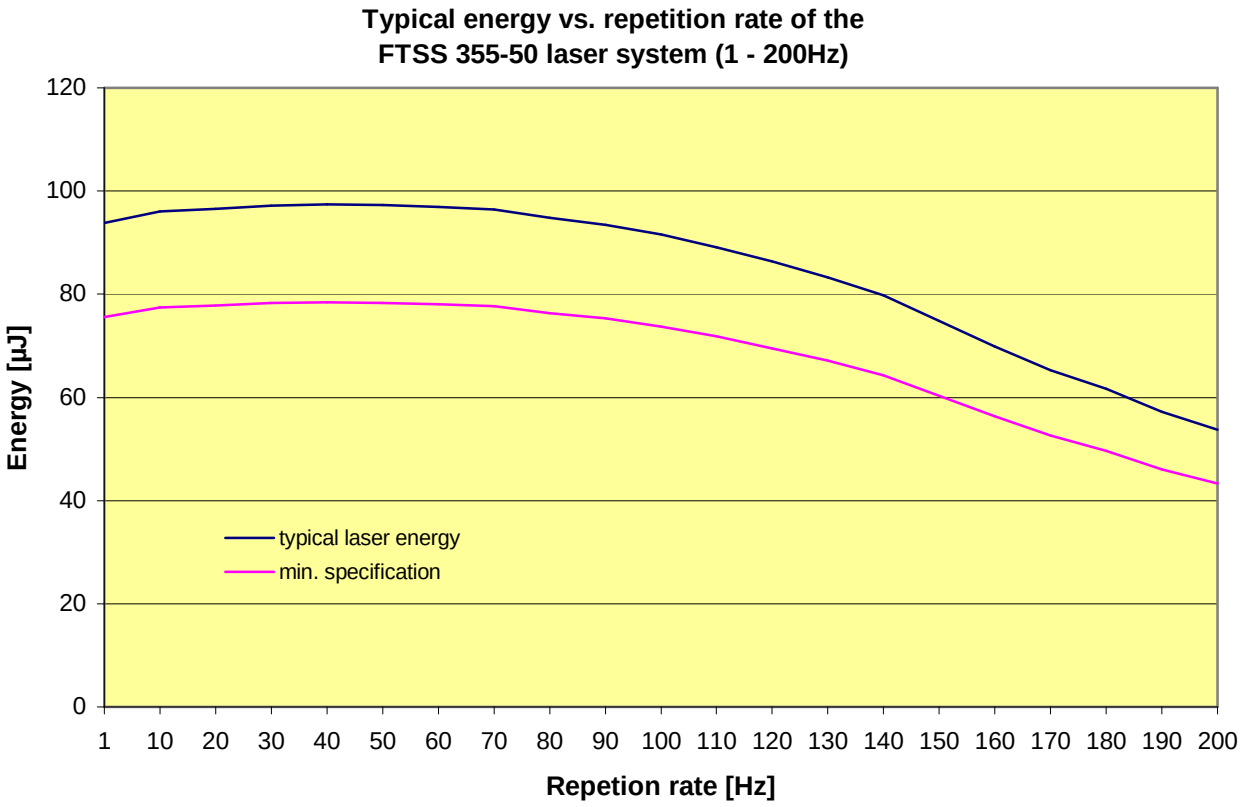
Typical behavior of the laser energy with different repetition rates



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