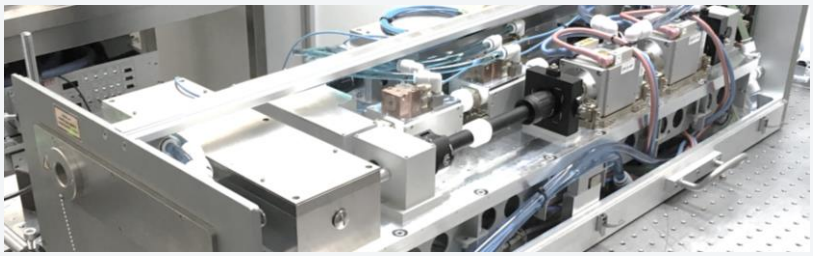
ARTHOS 100FM

High Energy Laser DPSS



Diode Pumped Solid State Laser

The ARTHOS 100FM is a diode-pumped solid state laser and is characterized by high energies at high repetition rates with good beam quality.
A special highlight is the modulator for the individual attenuation from pulse to pulse from 0 - 100%.
Further development projects are planned to achieve higher energies and repetition rates.
2nd, 3rd and 4th harmonics of Nd:YAG are also available upon request.

Features

- 100 mJ 1 kHz
  1064 nm 10 ns
- Fast attenuation from shot to shot
- Changing the attenuation via digital input
- All nonlinear wavelength are available

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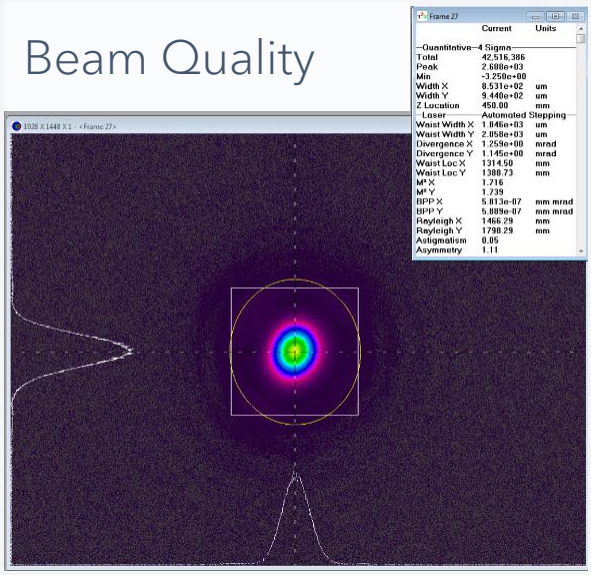
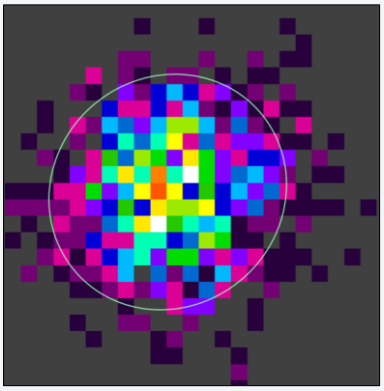
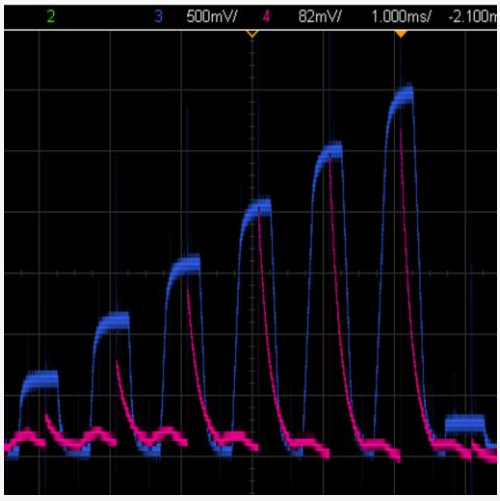
Beam Quality



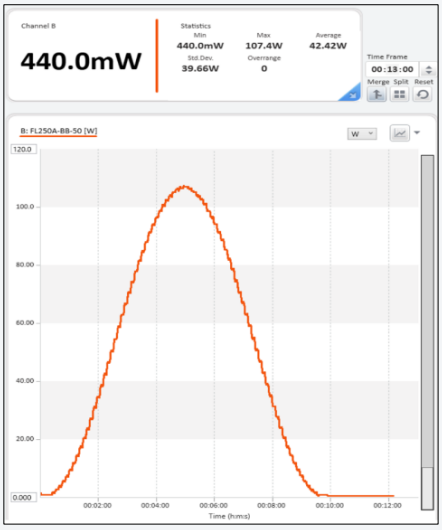
Pointing Stability



Fast Modulation



Attenuated Beam



The user can change the attenuation digitally.

Variable attenuation is achieved by varying the voltage at the pockels-cell.

A D / A converter converts the attenuation-byte into a voltage.

Resolution 12 bit

Attenuation: 0 to 99%

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Specifications	
Laser Crystal	Nd:YAG
Wavelength	1064nm
Power / Energy	> 100mJ
Repetition Rate	950 - 1000Hz
Pulse Width	< 10ns
Pulse to Pulse Stability	< 0.5%
M^2	< 2 (spatial)
Polarization	linear
Pointing Stability	< 50 microradian
Beam Diameter	3 mm
Modulator / Attenuator	Attenuation 0 to 99%
Operating Conditions	
Power Requirements	3-phase 400 VAC / 50 - 60 Hz / > 32 A per phase
Warm-up Time	10 min for temperature stabilization
Temperatur Range (environment)	15 – 35°C
Relative Humidity	8 – 98% (not condensing)
Cooling Water Temperature	22°C
Power Consumption	2.3kW
Dimensions	
Laser Head	1081mm x 200mm x 517mm
Power Supply	980mm x 550mm x 800mm
Chiller	483mm x 533mm x 830mm

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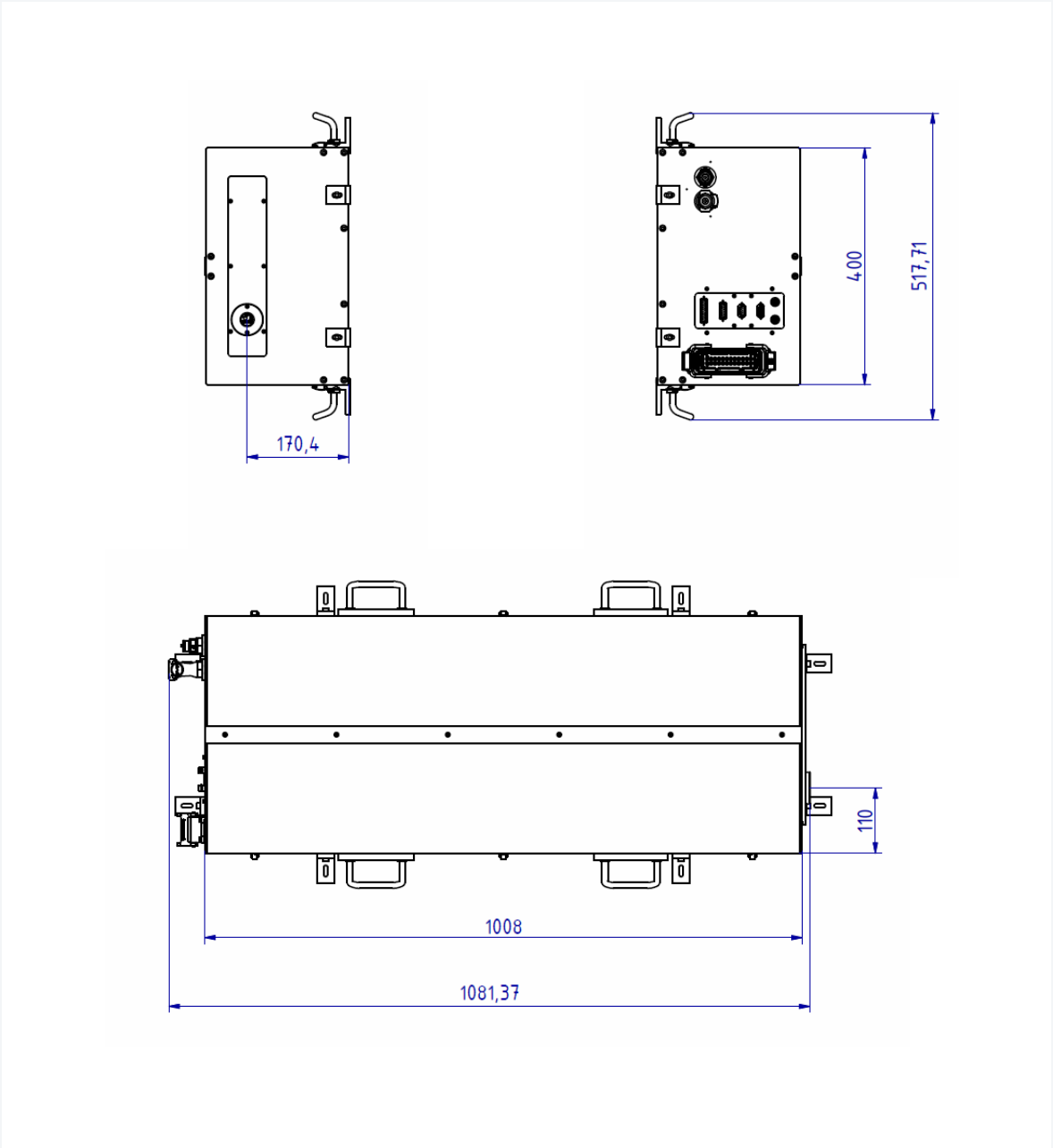
Mechanical Specifications



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