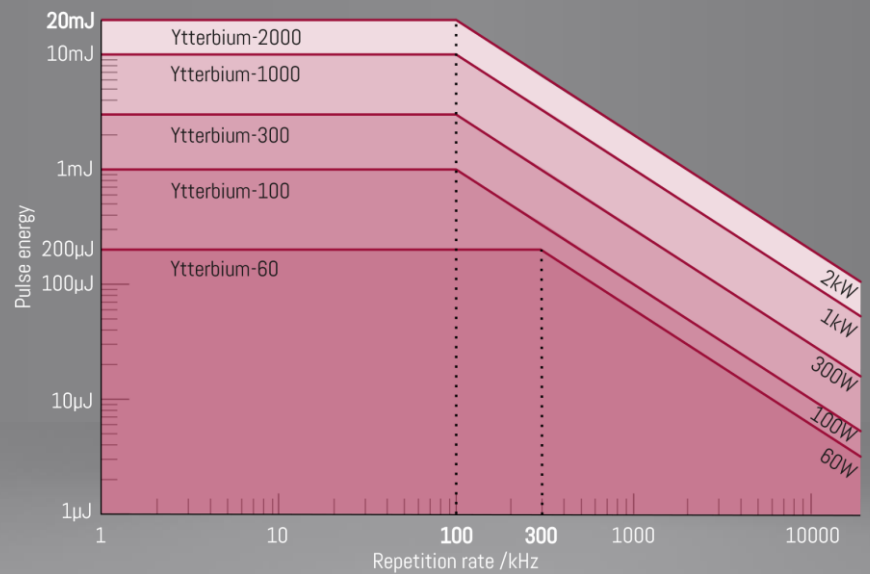


# COMPACT FEMTOSECOND LASERS YTTERBIUM-60 & YTTERBIUM-100

The quality of any laser application crucially depends on the performance of the driving light source - the laser itself. In addition, most applications require more and more average power from the laser source to be cost-effective or sensitive enough.

AFS's ultrafast fiber lasers are characterized by an outstanding performance combined with flexibility and maximum stability. All essential parameters are software-controlled and can be tuned over a wide range, making them an extremely valuable tool in many applications.



### MORE INFORMATION


[www.afs-jena.de](http://www.afs-jena.de) | [sales@afs-jena.de](mailto:sales@afs-jena.de)

### APPLICATIONS

- Driver for photo-emission-spectroscopy setups
- Pumping of optical parametric amplifiers (OPA)
- Generation of high harmonics (HHG)
- Materials processing

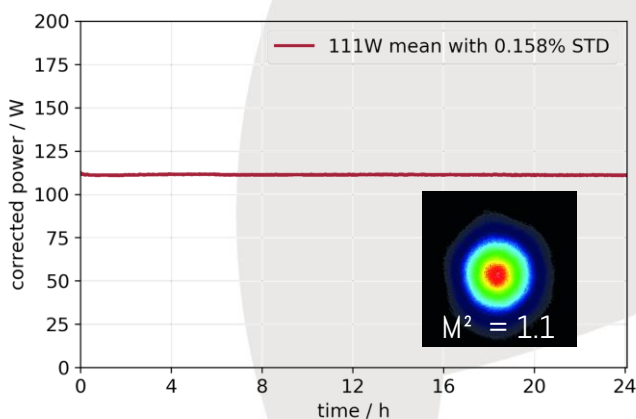
# COMPACT FEMTOSECOND LASERS YTTERBIUM-60 & YTTERBIUM-100



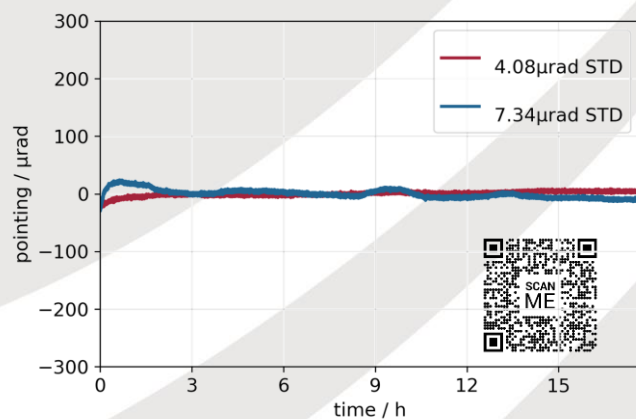
Member of the TRUMPF Group 

	Ytterbium-60	Ytterbium-100
Central wavelength	approx. 1030nm	
Repetition rate	50kHz (or single shot via externally controllable AOM upgrade) up to 20 MHz, others on request	
Pulse energy	up to 200μJ	up to <b>1mJ</b>
Peak power	up to 800MW	up to 4GW
Average power	up to 60W	up to 100W
Pulse duration	<b>&lt; 250fs</b> ... 5ps adjustable, others on request	
Polarization	linear	
Beam quality	close to diffraction-limited, <b>M<sup>2</sup> &lt; 1.2</b>	
RIN slow (average power)	< 0.5% RMS [1/ (24hours) ... 1Hz ]	
RIN fast (pulse energy)	< 0.5% RMS [1Hz ... f <sub>rep</sub> /2]	
Beam pointing	< 10μrad RMS (< 5% nat. divergence)	
Beam diameter	approx. 3mm	
Dimensions laser (W × D × H)	112cm × 41cm × 25cm	132cm × 41cm × 30cm
Mass	approx. 80kg	approx. 120kg
Add-ons	OPA, SHG, THG, HHG, Few-cycle generation, CEP-stability, GHz-Burst	
Logging	Logging of all operation parameters via control software, remote monitoring and service access	
Additional features	Turnkey reliability, all parameters software-controlled, temperature-stabilized and dust-sealed housing	

The specs above show only our main platforms. We gladly customize a system that fits your specific needs.



Typical characterization of power stability and beam quality



Typical characterization of beam pointing at 100 W average power