

COMPACT FEMTOSECOND LASERS YTTERBIUM-60 & YTTERBIUM-100

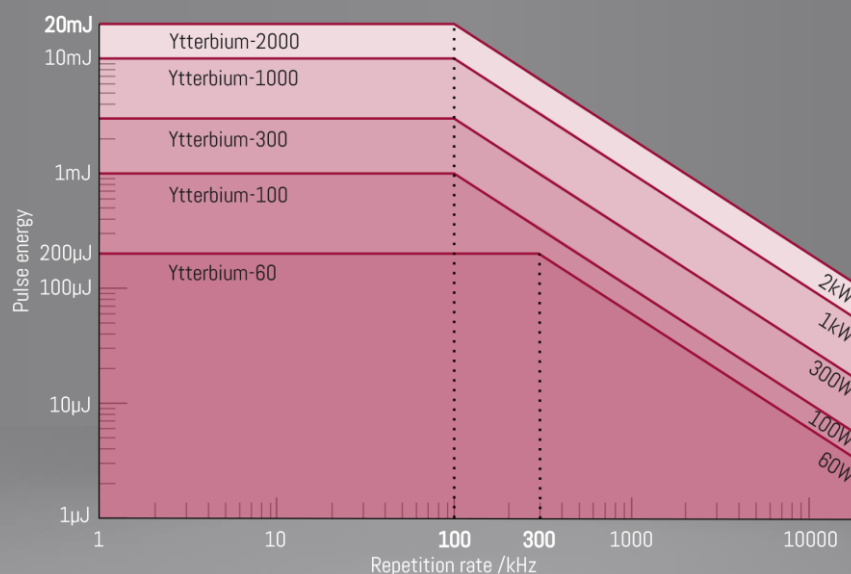


Member of the TRUMPF Group



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 | sales@afs-jena.de


APPLICATIONS

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



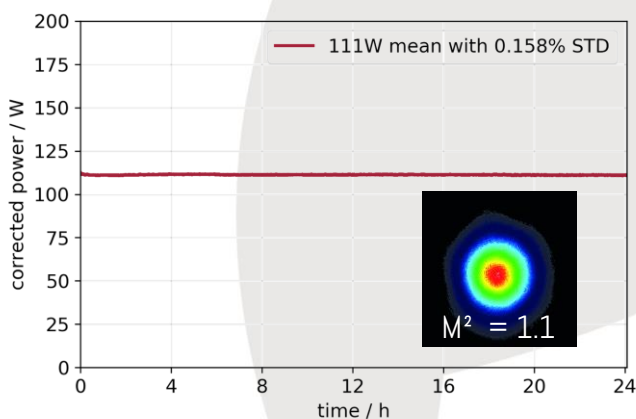
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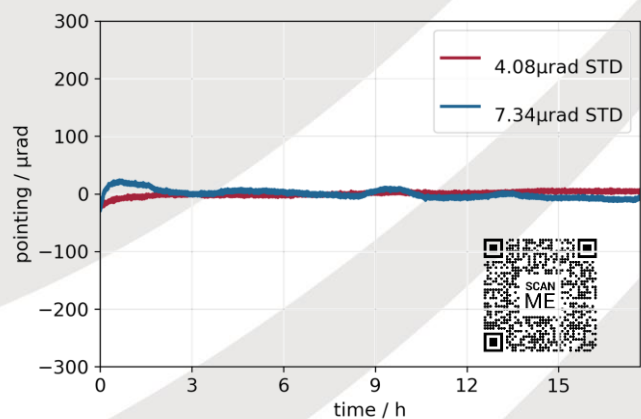
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	Ytterbium-60 S	Ytterbium-60 HE	Ytterbium-100
Central wavelength	approx. 1030nm		
Repetition rate	50kHz (or single shot via externally controllable AOM upgrade) up to 50 MHz, others on request		
Pulse energy	up to 200µJ	up to 400µJ	up to 1mJ
Peak power	up to 0.5GW	up to 1.0GW	up to 3.5GW
Average power	up to 60W	up to 100W	up to 100W
Pulse duration	< 250fs ... 5ps adjustable, others on request		
Polarization	linear		
Beam quality	close to diffraction-limited, $M^2 < 1.2$		
RIN slow (average power)	< 0.5% RMS [1/ (24hours) ... 1Hz]		
RIN fast (pulse energy)	< 0.5% RMS [1Hz ... $f_{rep}/2$]		
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

