

SPECIFICATIONS <sup>1)</sup>

Model	Atlantic IR5	Atlantic IR6HE	Atlantic IR25	Atlantic IR50	Atlantic IR80
<b>GENERAL SPECIFICATIONS</b>					
Wavelength	1064 nm				
Laser pulse repetition rate (PRR <sub>L</sub> ) range <sup>2)</sup>	100 – 1000 kHz	30 kHz	200 – 1000 kHz	300 – 1000 kHz	400 – 1000 kHz
Pulse repetition rate after frequency divider	PRR = PRR <sub>L</sub> / N, N=1, 2, 3, ... , 1025				
Maximal average output power <sup>3)</sup>	5 W	6 W	25 W	50 W	80 W
Pulse energy at lowest PRR <sub>L</sub> <sup>3)</sup>	30 µJ	200 µJ	125 µJ	165 µJ	200 µJ
Pulse contrast	> 150 : 1	> 300 : 1			
Power long term stability over 8 h after warm-up (Std. dev.) <sup>4)</sup>	< 1.0 %				
Pulse energy stability (Std. dev.) <sup>5)</sup>	< 0.8 %	< 1.0 %			
Pulse duration (FWHM)	10 ± 3 ps				
Polarization	linear, vertical 100 : 1				
M <sup>2</sup>	< 1.3				
Beam circularity, far field	> 0.85				
Beam divergence, full angle	< 2.0 mRad	< 1.5 mRad			
Beam pointing stability (pk-to-pk) <sup>6)</sup>	< 50 µRad				
Beam diameter (1/e <sup>2</sup> ) at 50 cm distance from laser aperture	1.4 ± 0.2 mm	1.8 ± 0.3 mm			
Triggering mode	internal / external				
Pulse output control	frequency divider (down to single shot), arbitrary pulse selection, power attenuation				
Control interfaces	keypad / USB / RS232 / LAN				
<b>OPERATING REQUIREMENTS</b>					
Mains requirements	100...240 V AC, single phase 47...63 Hz				
Maximal power consumption	< 0.5 kW	< 2.8 kW	< 2.8 kW	< 3.1 kW	< 3.5 kW
Operating ambient temperature	18–27 °C				
Relative humidity	10–80 % (non-condensing)				
Air contamination level	ISO 9 (room air) or better				
<b>PHYSICAL CHARACTERISTICS</b>					
Cooling	air	water			
Laser head size (W × H × L)	372 × 158 × 423 mm	396 × 173 × 755 mm			
Power supply unit size (W × H × L)	471 × 153 × 511 mm	553 × 1019 × 852 mm			
Umbilical length	3 m	4 m			
<b>CLASSIFICATION</b>					
Classification according EN60825-1	CLASS 4 laser product				

<sup>1)</sup> Due to continuous improvement, all specifications are subject to change without notice. Parameters marked typical are not specifications. They are indications of typical performance and will vary with each unit we manufacture. Unless stated otherwise, all specifications are measured at 1064 nm.

<sup>2)</sup> When frequency divider is set to transmit every pulse.

<sup>3)</sup> See typical power and energy curves for other pulse repetition rates.

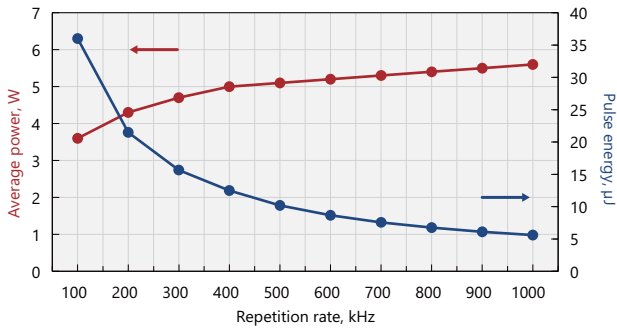
<sup>4)</sup> At the lowest PRR<sub>L</sub> after warm-up under constant environmental conditions.

<sup>5)</sup> At the lowest PRR<sub>L</sub> under constant environmental conditions.

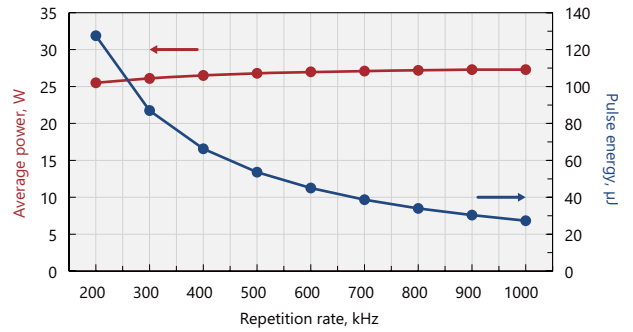
<sup>6)</sup> Beam pointing stability is evaluated as a movement of the beam centroid in the focal plane of a focusing element.



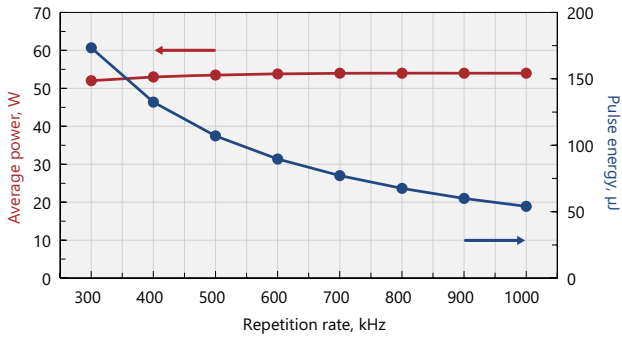
PERFORMANCE



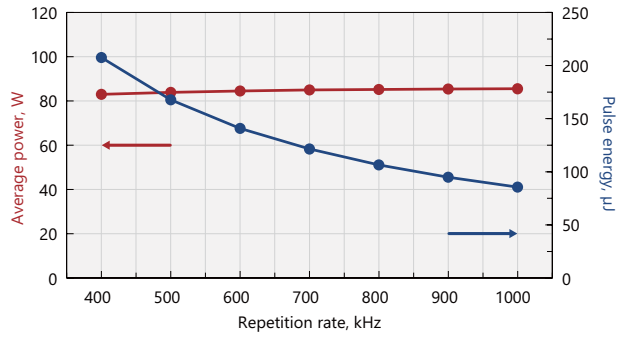
Typical output power and energy curves of Atlantic IR5



Typical output power and energy curves of Atlantic IR25



Typical output power and energy curves of Atlantic IR50



Typical output power and energy curves of Atlantic IR80