

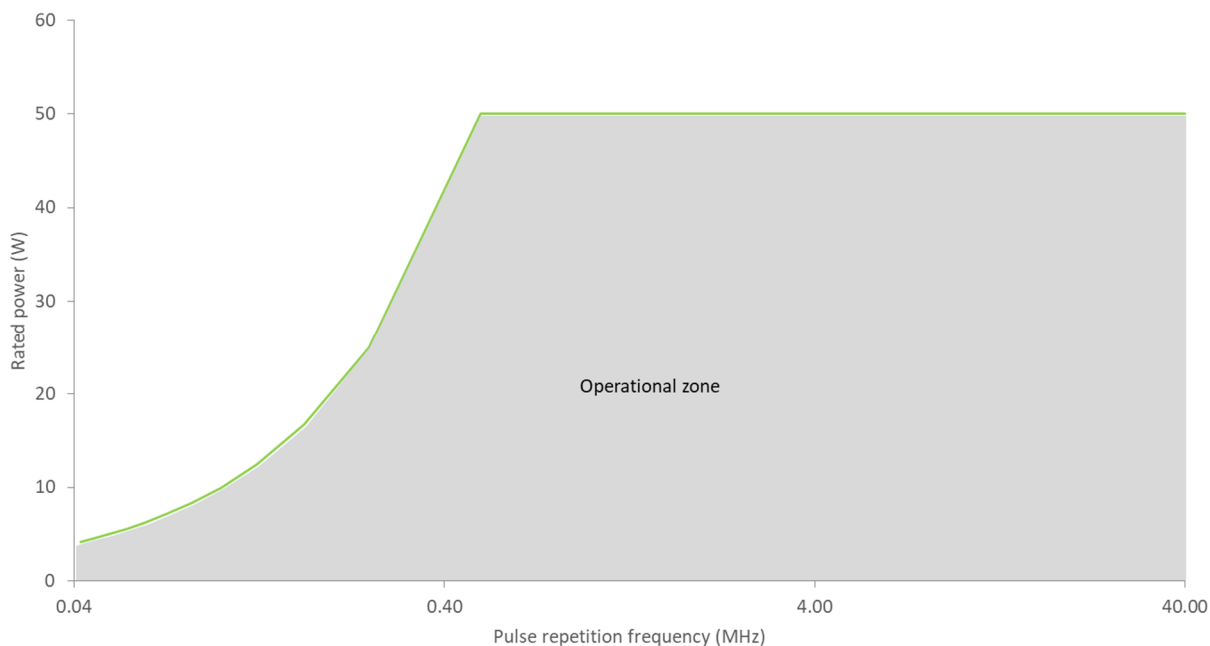


## Technical data ultrashort pulse lasers – specification

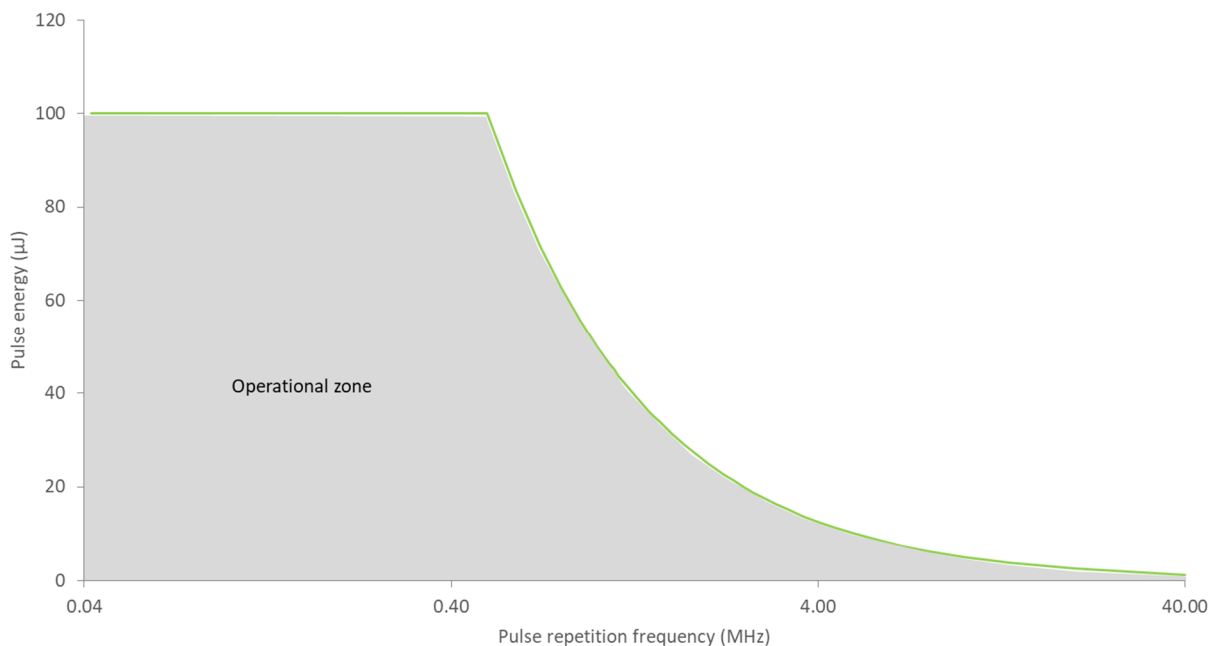
	LXR 50-1030
<b>Laser beam overview</b>	
Wavelength <sup>(1)</sup>	1030nm
Pulse duration	900 ± 100fs
<b>Output power</b>	
Rated output power <sup>(2)</sup>	50W
<b>Pulse parameters</b>	
Pulse repetition frequency	Single shot – 40MHz
Rated pulse energy <sup>(3)</sup>	100µJ
Pulse on demand	With individual pulse energy control
<b>Fast burst mode</b>	
Period between pulses in a burst	25ns
Number of pulses per burst <sup>(4)</sup>	2-10
Maximum rated burst energy	250µJ
<b>Laser beam parameters</b>	
Diameter (1/e <sup>2</sup> ) at laser output aperture	3.0 ± 0.25mm
Beam quality factor	M <sup>2</sup> < 1.3
Divergence (full angle, far-field)	< 600µrad
Pointing stability	< ± 50µrad
Polarisation	Linear (perpendicular to base), purity > 100:1
Ellipticity	< 1.2:1
<b>Dimension and weights</b>	
Laser head	(L×W×H) 929mm×500mm×330mm 110kg
Drive unit <sup>(5)</sup> (DC PSU, controller DC PSU)	(L×W×H) 725mm×550mm×351mm 35kg
<b>Electrical ratings</b>	
Input voltage range	200V – 240VAC, single phase 50/60Hz
Maximum input power	1.2kW
<b>Input water specification</b>	
Flow rate through laser head	14-16 L/min
Chiller cooling capacity	> 1.2kW

## Notes:

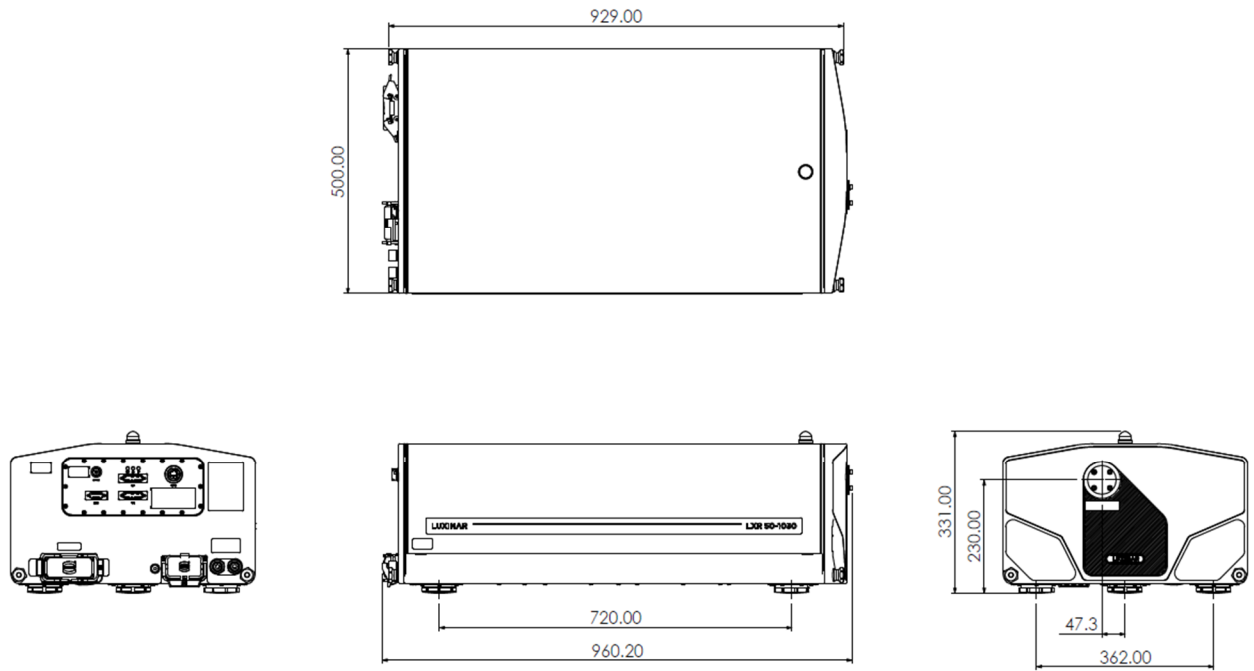
- <sup>1</sup> A frequency doubled option at 515nm is available. Contact your local Luxinar representative for more details.
- <sup>2</sup> See fig 1 for the range of output powers available.
- <sup>3</sup> See fig 2 for the range of pulse energies available.
- <sup>4</sup> Fast burst mode available at 0.2-8MHz. Number of pulses available in a burst depends on the selected pulse repetition frequency.
- <sup>5</sup> Drive unit with integrated chiller available on request. Contact your local Luxinar representative for more details.
- <sup>6</sup> Laser head to be mounted in the specified orientation only.



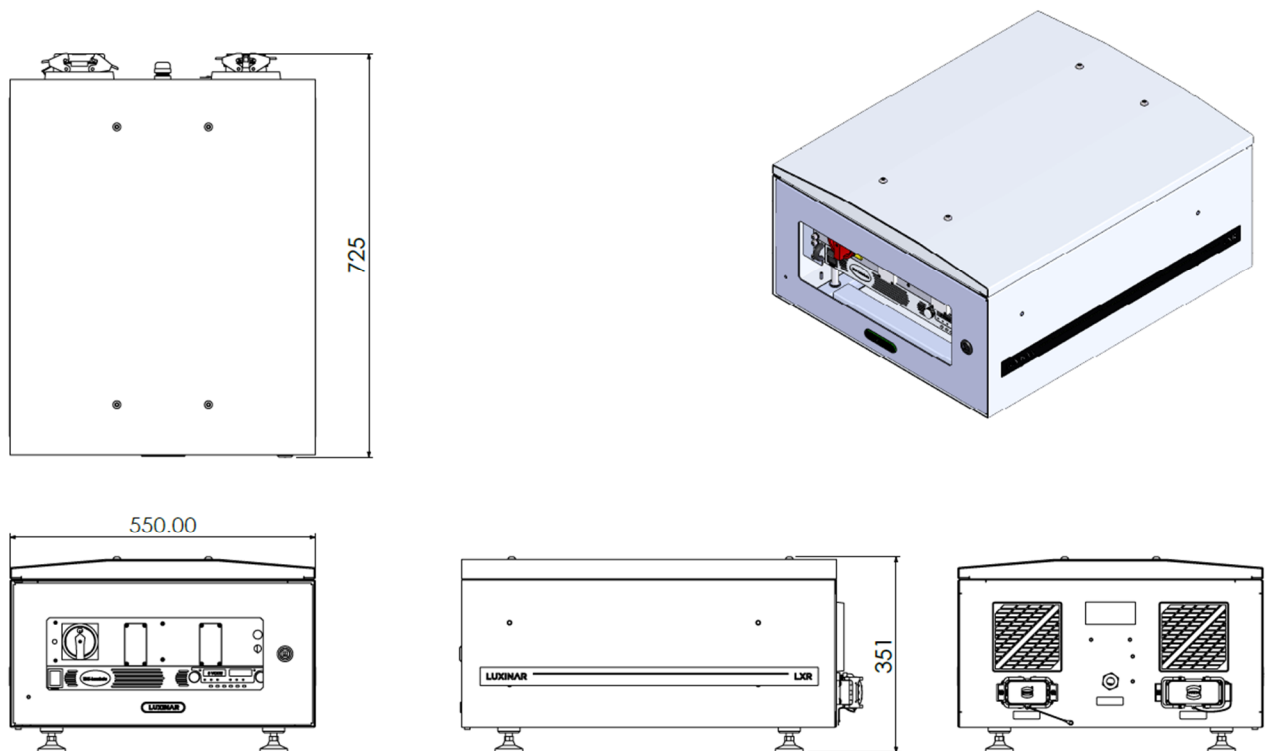
**Fig 1** Range of available output powers



**Fig 2** Range of available pulse energies



**Fig 3** LXR 50 Laser Head



**Fig 4** Drive unit

Please note that while every effort has been made to ensure that the data given in this document is accurate, the information, figures, illustrations, tables, specification and schematics contained herein are subject to change without notice.