



Technical data ultrashort pulse lasers – specification

	LXR 120-1030
Laser beam overview	
Wavelength ⁽¹⁾	1030nm
Pulse duration	900 ± 100fs
Output power	
Rated output power ⁽²⁾	120W
Pulse parameters	
Pulse repetition frequency	Single shot – 40MHz
Rated pulse energy ⁽³⁾	120µJ
Pulse on demand	With individual pulse energy control
Fast burst mode	
Period between pulses in a burst	25ns
Number of pulses per burst ⁽⁴⁾	2-10
Maximum rated burst energy	600µJ
Laser beam parameters	
Diameter (1/e ²) at laser output aperture	3.0 ± 0.25mm
Beam quality factor	M ² < 1.3
Divergence (full angle, far-field)	< 600µrad
Pointing stability	< ± 50µrad
Polarisation	Linear (perpendicular to base), purity > 100:1
Ellipticity	< 1.2:1
Dimension and weights	
Laser head	(L×W×H) 929mm×500mm×330mm 110kg
Drive unit ⁽⁵⁾ (DC PSU, controller DC PSU)	(L×W×H) 725mm×550mm×351mm 35kg
Electrical ratings	
Input voltage range	200V – 240VAC, single phase 50/60Hz
Maximum input power	2.3kW
Input water specification	
Flow rate through laser head	14-16 L/min
Chiller cooling capacity	> 1.8kW

Notes:

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

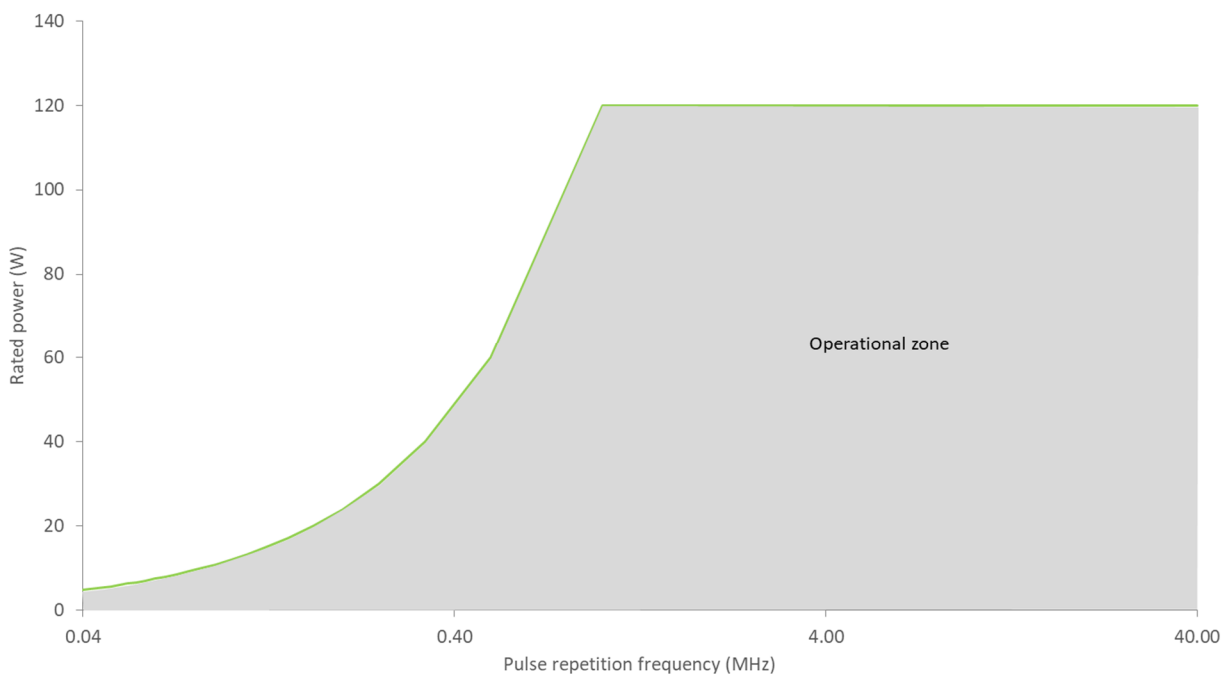


Fig 1 Range of available output powers

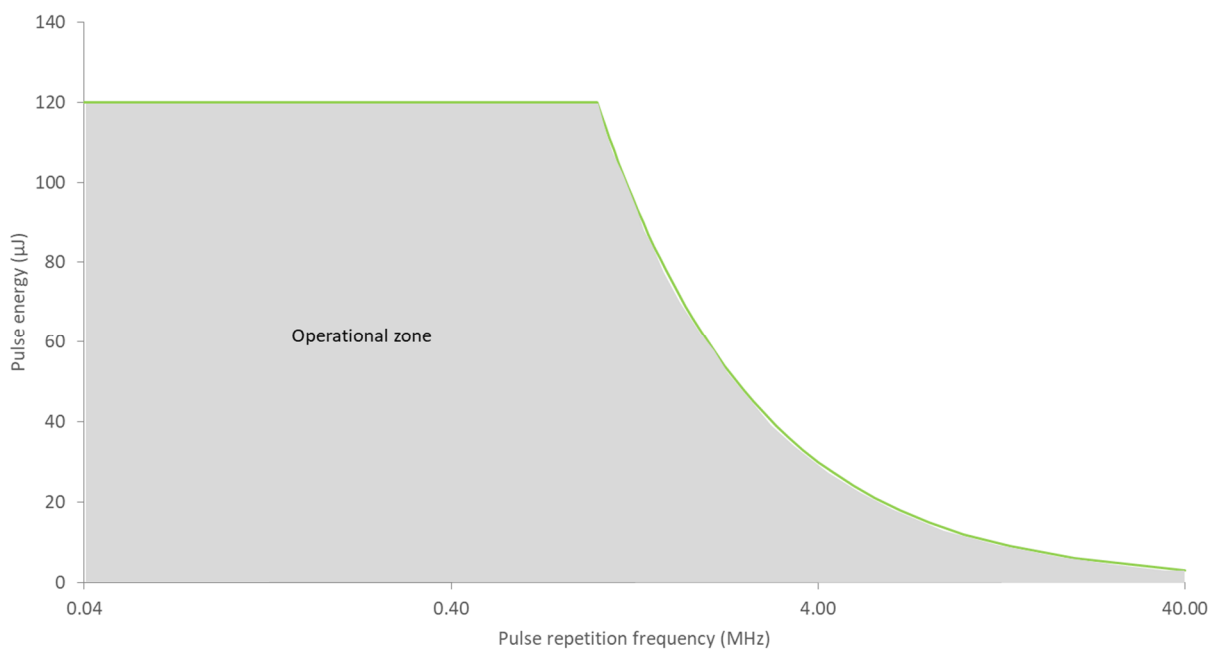


Fig 2 Range of available pulse energies

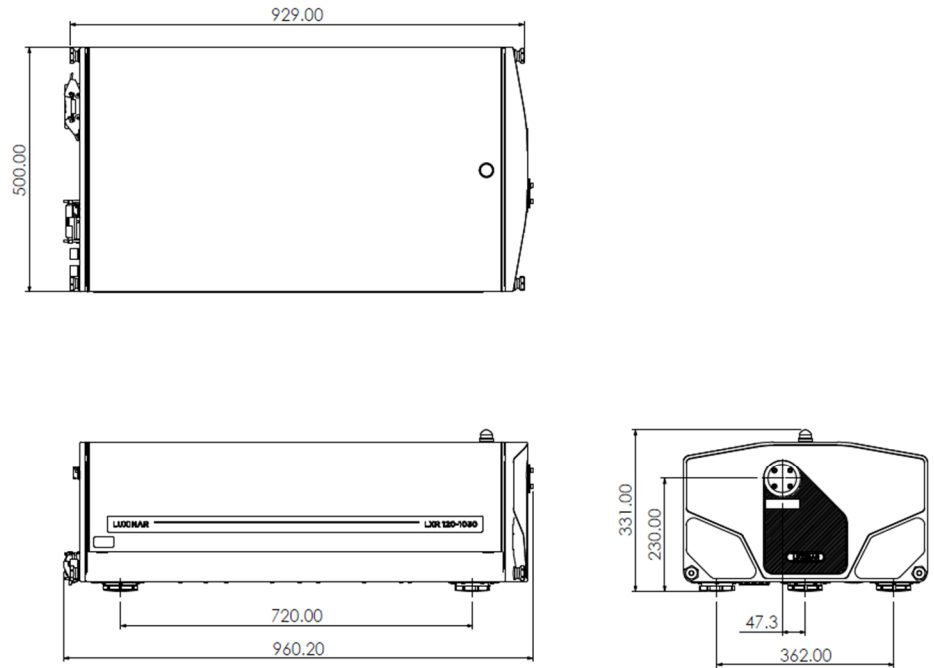


Fig 3 LXR 100 Laser Head

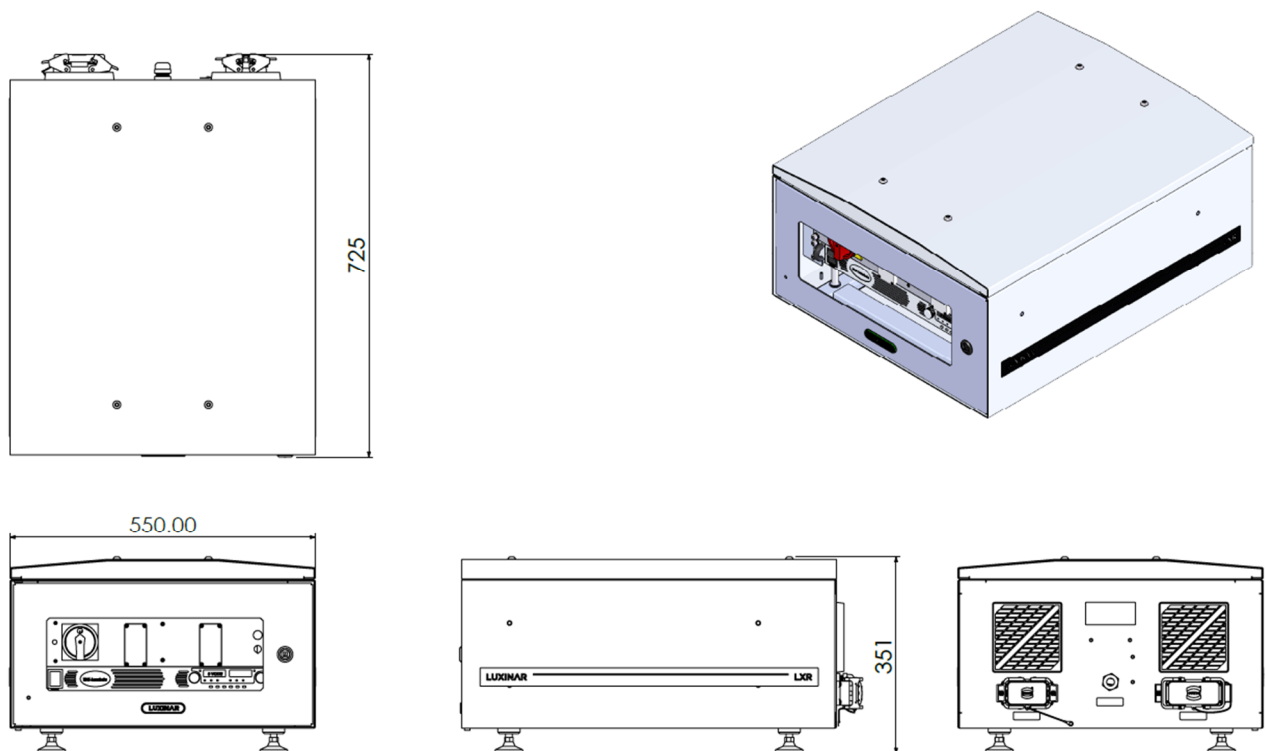


Fig 4 Drive unit

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.