



High Energy Solid State Laser

HiEn-PuLS-X5400-YLF

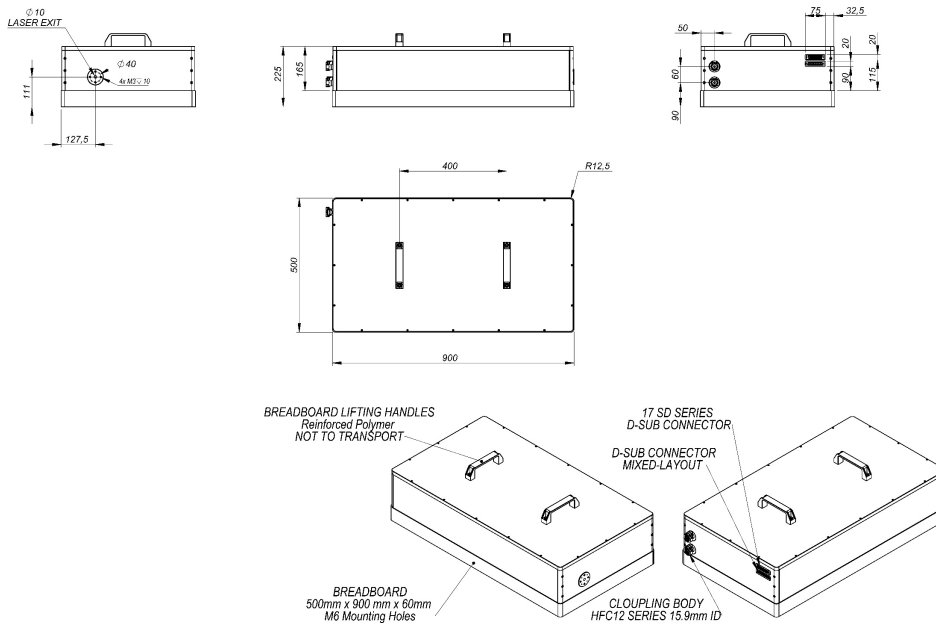
Features:

- Long lifetime
- High reliability
- Low thermal resistances
- Wide storage temperature +5°C to + 60°C
- No SMILE effect

Suitable for:

- Material processing
- LIBS/RAMAR/IR Spectroscopy
- OPO/DYE/Ti: Sa Laser pumping
- LIDAR & WIND LIDAR

HiEn-PuLS-X5400-YLF I outline



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Version: 1.0.0.0

Product specification are subject to change without notice.
For complete details, please contact your local MONOCROM sales representative.

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HiEn-PuLS-X5400-YLF I TECH SPECIFICATIONS

HiEn-PuLS-15400-YLF

HiEn-PuLS-25400-YLF

HiEn-PuLS-35400-YLF

Laser Parameters ^(5,6)			
Fundamental Wavelength		1053 nm	
Repetition Rate ⁽¹⁾		1 – 1000 Hz	
Energy Output at 1053 nm ⁽²⁾	< 200 mJ	< 500 mJ	< 1000 mJ
Energy Output at 527 nm	< 120 mJ	< 300 mJ	< 600 mJ
Energy Output at 351 nm	< 70 mJ	< 175 mJ	< 350 mJ
Pulse Width ⁽³⁾		4 – 25 ns	
Power Stability ⁽⁴⁾	< 1% @ 8 h	< 1.5% @ 8 h	< 2% @ 8 h
Pulse to Pulse Stability ⁽⁴⁾		< 5% rms	
Beam Parameters ^(4,8)			
Divergence		< 1 mrad	
Beam Quality M ²	3	5	7
Beam Diameter		6 mm	
Beam Ellipticity		> 95%	
Pointing Stability		50 µrad	
Polarization Ratio		100:1	
Jitter ⁽⁷⁾		< 1.5 ns	
Operating Parameters ⁽¹¹⁾			
Diode Lifetime ⁽⁹⁾		20000 h	
Coolant Flow	< 1.5 l/min	< 3.0 l/min	< 4.5 l/min
Coolant Pressure		< 3.5 bar	
Coolant	90% Distilled water + 10% ethylene glycol		
Warm Up Time ⁽¹⁰⁾		< 2 min	
Operating Temperature		20 – 35 deg	
Additional Parameters			
Weight (Laser Head)		< 30 Kg	
Weight (Electronics)		< 10 Kg	
Laser Head Dimensions (L x W x H)	600 x 300 x 150 mm	600 x 450 x 150 mm	900 x 450 x 150 mm
Communications		RS232 / USB	
External Trigger		IN / OUT	
Laser class product (EN-60825)		4	

1. Repetition rate influences maximum pulse energy and vice versa.
2. Per pulse.
3. 5 – 10 ns for OPO.
4. Valid for the fundamental wavelength.
5. Specifications at 25 °C, at the beginning of the lifetime.
6. All specs can be customized.
7. If any other requirements are needed, please contact us.
8. Reduced lifetime if use in conflict to the nominal operational conditions.
9. Reaching 90% of output power.
10. Optics and cooling adaptation are available.
11. External cooling water circuit or chiller is needed. The values are recommendations.

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