



CiOM S3

Diode Pumped Solid State Laser

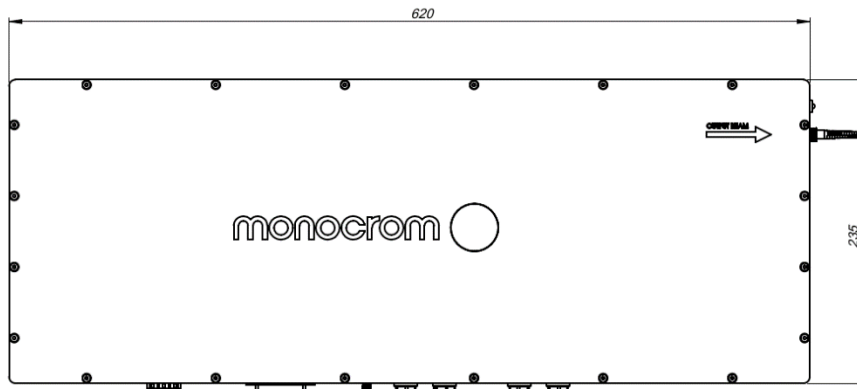
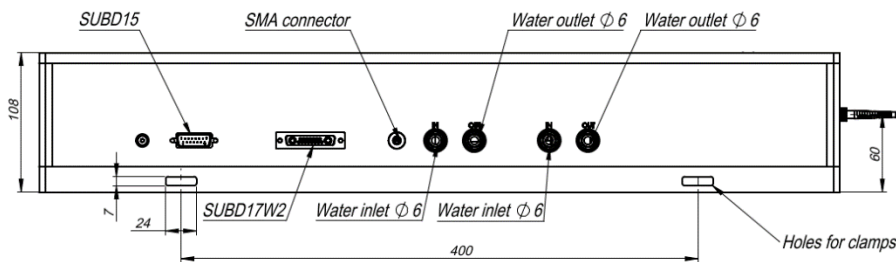
Features:

- Long lifetime
- High reliability
- Narrow linewidth
- No SMILE effect

Suitable for:

- LIBS
- Material processing
- Medical applications
- OPO pumping

CiOM S3 Outline



CiOM S3

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

UNE EN ISO 9001:2015

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CiOM S3 | TECH Specifications

Laser Parameters^(1,2,3)		2ENLPPLM90-007
Type	low energy pulsed laser sub system	
Fundamental Wavelength	351 nm	
Linewidth	< 100 pm	
Average Power ⁽³⁾	2 W	
Average Power @ 15 m MM fiber ^(3,4)	> 1 W @ 3 kHz	
Power Adjustment Range	0 – 100%	
Repetition Rate	1 – 5 kHz	
Energy Output ⁽⁵⁾	> 500 µJ	
Pulse Width	50 ns < τ_p < 100 ns	
Power Stability	< 1% @ 8 h	
Pulse to Pulse Stability	< 1% rms	
Beam parameters⁽⁵⁾		
Fiber Connector of Laser Head ⁽⁶⁾	FC/PC	
Fiber Patch Cable Length	up to 15 m	
Beam Quality M ²	< 1.5	
Beam ellipticity	1.05:1	
Pointing stability [µrad]	50	
Polarization ratio	100:1	
Jitter [ns]	< ± 5	
Operating parameters⁽⁹⁾		
Diode lifetime ⁽⁷⁾ [h]	20000	
Coolant	90% DI water – 10% entylenglycol	
Coolant flow [l/min]	< 2.5	
Coolant inlet pressure [bar]	3.5	
Coolant temperature [°C]	20 – 35	
Warm Up time ⁽⁸⁾ [min]	< 2	
Module		
Operating temperature [°C]	non-condensing - 45	
Storage temperature [°C]	between 5 and 60	
Weight (Laser Head)	< 15 kg	
Weight (Electronics)	< 10 kg	
Laser Head Dimensions (L x W x H)	620 x 235 x 108	
Electronics Dimensions (L x W x H)	19-inch – 3 HU	
External trigger	IN/OUT (2 x BNC)	
Electrical supply	110 – 250 VAC @ 50/60 Hz	
Laser class product (EN-60825)	4	

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1. Specifications at 25 °C, at the beginning of the lifetime.
2. If any other requirements are needed, please contact us.
3. Value varies with rep. rate. Measured at the laser exit and before attached fiber.
4. MM fiber: Multi Mode fiber with 600 µm core diameter. Other diameters are available on request.
5. Max pulse energy is achieved at 4 kHz.
6. Fiber connector type at the laser head can be changed according to customers needs. Fiber is detachable.
7. Reduced lifetime if use in conflict to the nominal operational conditions.
8. Reaching 90% of output power.
9. Optics and cooling adaptation are available.

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