

# QCW Pumping Source

## PH450-QCW to PH1800-QCW

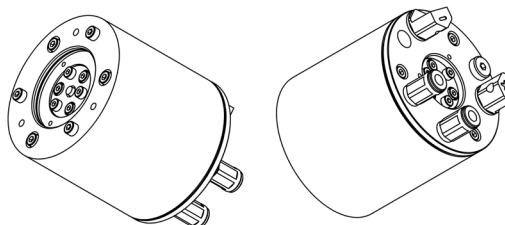
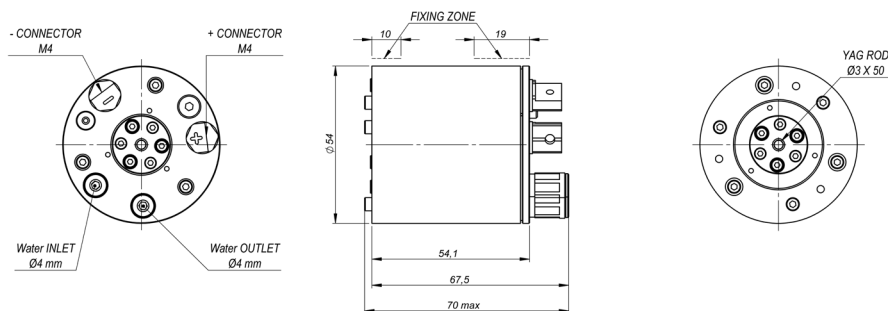
### Features:

- QCW operation mode
- Free rotation of the pumping chamber
- Solder-free clamping technology inside
- Longer lifetime

### Intended for:

- Oscillators
- Regenerative amplifiers
- Multi-pass amplifiers

### PH450-QCW to PH1800-QCW | outline



QCW Laser Pumping Source  
PH450-QCW to PH1800-QCW

Version: 1.0.0.0

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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## PH450-QCW to PH1800-QCW | TECH Specificati

Laser Parameters <sup>(1,2,3,4)</sup>	PH450	PH900	PH1200	PH1800
Type	QCW pumping head			
Wavelength <sup>(5)</sup> [nm]	806 ± 3			
Spectral width [nm]	< 4			
Pump power <sup>(4,6)</sup> [W]	450	900	1200	1800
Temperature coefficient [nm/K]	0.27			
<b>Electrical parameter</b>				
Operating current [A]	150	150	180	270
Differential slope efficiency [W/A]	0.97			
Voltage @ connectors <sup>(7)</sup> [V]	6	12	12	12
<b>Optical parameter</b>				
Rod material	YAG or YLF			
Nd doping concentration [%]	YAG: 0.3 – 0.8 YLF: 0.3 – 1.0			
Rod dimensions <sup>(8)</sup> , dia. × length [mm × mm]	3 × 50			
Emission wavelength [nm]	depends on host material			
<b>Body</b>				
Coolant flow [l/min]	1.5 – 2.0			
Coolant pressure [bar]	2.0 – 2.5			
Coolant temperature [°C]	20 – 40			
Operating temperature [°C]	non-condensing to 45			
Recommended coolant	90% DI water + 10% ethyleneglycol			
Electrical connections	2× M4 threads			
Water connections, push-in	2× Ø 4 mm			
Laser class product (EN-60825)	4			
Diode lifetime [h]	20000			

1. This is a preliminary specification sheet; validation of specification is in process.
2. If any other requirements are needed, please contact us.
3. Specifications at 20 °C, at the beginning of the lifetime.
4. Specification are subjected to chips availability.
5. Other wavelengths on request.
6. Expected output power per laser stack. Can varies based on current and temperature.
7. Voltage from the power supply must be higher, as due to high current there will be a voltage drop in the cables.
8. Rod diameters up to 8 mm are available up on request.

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