

# FQCW266-1200

Diode Pumped Continuous Wave Solid State Laser

- 266 nm
- Continuous Wave
- Single Frequency
- Low Power Noise
- $M^2 < 1.3$ , TEM<sub>00</sub>
- Up to 1200 mW
- Patented Design <sup>(5)</sup>



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<b>Optical Data</b>	Wavelength	266.00 ± 0.05 nm
	Nominal Output Power	1200 mW ± 5 %
	Output Power Adjustability	120 mW to 1200 mW
	Line Width	< 300 kHz
	Beam Propagation Factor M <sup>2</sup> (average)	< 1.3, TEM <sub>00</sub>
	Beam Propagation Factor M <sup>2</sup> <sub>x</sub> (horizontal)	< 1.2, TEM <sub>00</sub>
	Beam Propagation Factor M <sup>2</sup> <sub>y</sub> (vertical)	< 1.35, TEM <sub>00</sub>
	Polarisation Orientation and Purity	Vertical, > 500:1
	Beam Diameter	1.1 ± 0.3 mm
	Beam Divergence	< 0.45 mrad
	Static Alignment Tolerance <sup>(1)</sup>	Lateral ± 0.25 mm   Angular ± 2.5 mrad
	Spot-to-Spot Beam Pointing Variation <sup>(2)</sup>	± 225 µrad
	Power Stability (0.5 Hz over 8 h)	< 0.2 % rms
	Power Noise (1 Hz – 100 kHz)	< 1 % rms
Power Noise (100 kHz – 250 MHz)	< 0.2 % rms	
<b>Lifetime</b>	Typical UV Crystal Spot Lifetime	2000 hours
	Typical Lifetime (before First Service)	16000 hours
<b>Electrical Data</b>	Power Consumption Mean (Max)	< 200 W (450 W)
	Line Voltage	90 to 250 V AC (50 to 60 Hz)
	Communication Interfaces	USB   RS232   Ethernet
	Safety Features	Key Switch   Interlock   Electrical Shutter
<b>Miscellaneous</b>	Warm-up Time Typical (Max) <sup>(3)</sup>	30 min (45 min)
	Operating Temperature (Laser Head)	20 °C to 25 °C non-condensing
	Cooling via Bearing Surface, Required Thermal Resistance <sup>(4)</sup>	1/40 K/W @ 25 °C   1/20 K/W @ 20 °C Cooling Surface
	Laser Head Dimensions	< 120 x 310 x 715 mm <sup>3</sup> (H x W x L)
	Control Unit Dimensions	< 134 x 483 x 411 mm <sup>3</sup> (H x W x L)
	Laser Head Weight	< 36 kg
	Control Unit Weight	< 12 kg

## Required Options

Purge Supply Laser Exit Window

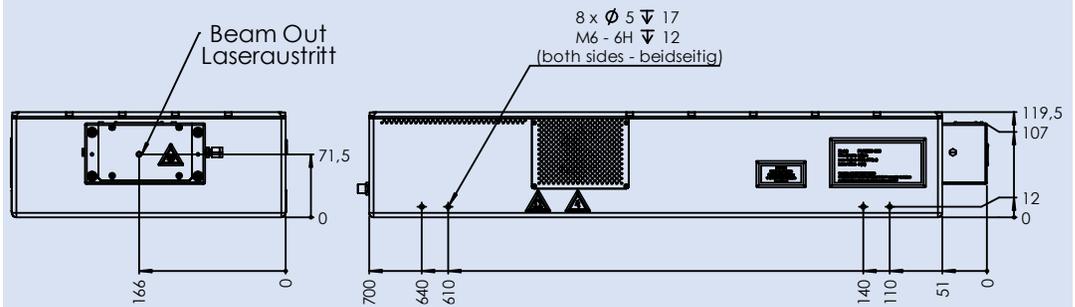
Flow 0.5 l/min  
CDA, SH < 10 PPM or  
N2 (Purity Grade 5.0 "Scientific" or Better)

## Notes:

- (1) Position and angle of static alignment tolerances are specified with regard to laser beam exit.
- (2) Refers to adjacent spots on non-linear UV crystal.
- (3) Warm-up in the temperature range 20 - 25 °C, temperature change < 1 K/h.
- (4) Different cooling options (e.g. air flow, water cooling) available upon request.
- (5) Protected by patents:  
DE10339210B4, EP1344105B1, US7027209B2, DE102010064382B4, US9429814B2, DE102012212428B4, US9024247.

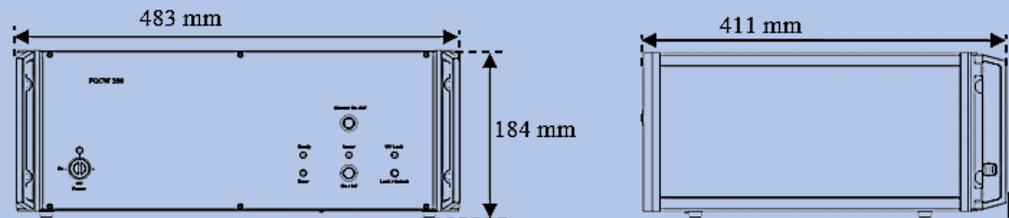
## Dimensions

### Laser Head



All dimensions in mm.

### Control Unit



## Laser Safety Labels

FQCW266 laser sources are class 4 / IV lasers according to IEC 60825-1

