FQCW 266-1000

Diode Pumped Continuous Wave Solid State Laser

- 266 nm
- Continuous Wave
- Single Frequency
- Low Intensity Noise
- $M^2 < 1.3$, TEM_{00}
- Up to 1000 mW
- Air Cooled
- Patented Design (*)

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Optical Data	Wavelength	266 ± 1 nm
	Output Power (Adjustability)	1000 mW ± 5 % (100-1000 mW)
	Linewidth	< 300 kHz
	Beam Propagation Factor M^2 (average)	< 1.3, TEM_{00}
	Beam Propagation Factor M^2x (horizontal)	< 1.2, TEM_{00}
	Beam Propagation Factor M^2y (vertical)	< 1.35, TEM_{00}
	Polarisation orientation and purity	vertical, > 500:1
	Beam Diameter	1.0 ± 0.2 mm
	Beam Divergence	< 0.45 mrad
	Beam Pointing Stability (1)	< 3 µrad/K, < 3 µrad/h
	Static Alignment Tolerance (2)	lateral ± 0.25 mm, angular ± 2.5 mrad
	Spot-to-Spot Beam Pointing Variation	± 200 µrad
	Power Stability (0.5 Hz over 8 h)	< 0.2 % rms
	Intensity Noise (1 Hz – 100 kHz)	< 1 % rms
	Intensity Noise (100 kHz – 250 MHz)	< 0.2 % rms
Life Time	Crystal Spot Life Time (hours)	1,000
	Total Life Time (hours)	purged 20,000 / non purged 16,000
Electrical Data	Power Consumption Mean (Max)	< 200 W (450 W)
	Line Voltage	90 - 250 V AC (50-60 Hz)
	Communication Interfaces	USB / RS232 / Ethernet
	Safety Features	key switch, interlock, electrical shutter
Miscellaneous	Warm-up Time	< 45 min
	Operating Temperature (laser head)	20 - 25 °C non-condensing
	Laser Head Dimensions	143 x 325 x 739 mm³ (H x W x L)
	Control Unit Dimensions	184 x 483 x 411 mm³ (H x W x L)
	Laser Head Weight	36 kg
	Control Unit Weight	12 kg
Required Options	Purge Interface for Laser Head	CDA 1.5 LPM, 50 PSI, SH<10 PPM

Notes

General requirement: 30 minutes warm-up in the temperature range 20 - 25 °C, temperature change < 1 K/h.

1. Referenced to kinematic mounting base
2. Position and angle of static alignment tolerances are specified with regard to laser beam exit.

(*) Protected by patents: DE10339210B4, EP1344105B1, US7027209B2, DE102010064382B4, US9429814B2, DE102012212428B4, US9024247

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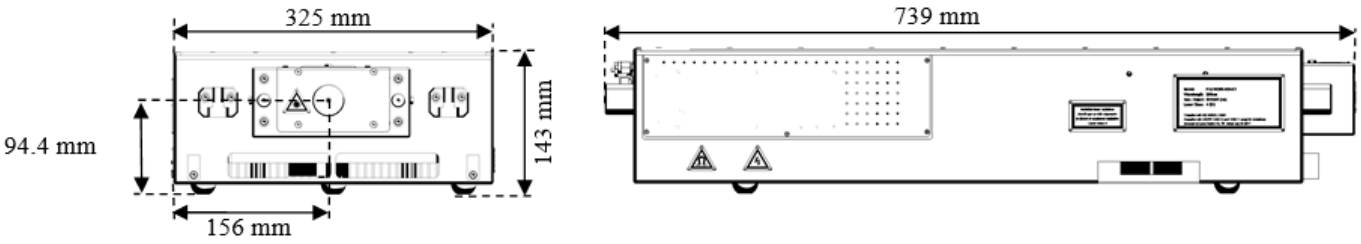
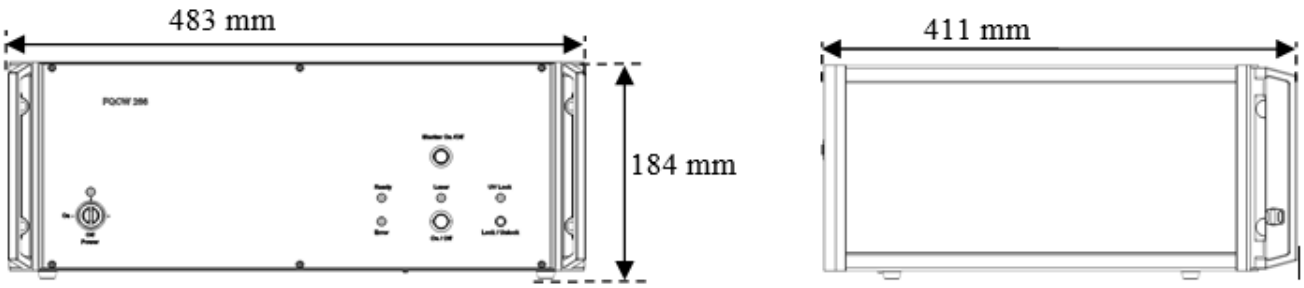
Dimensions

Laser Head:



Control Unit:



All dimensions in mm

Laser Safety Labels

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