Xiton Photonics

XVL

TEM_{00} beam profile, diode laser pumped, Q-switched solid-state laser
Wavelengths 1064 nm, 532 nm, 355 nm and 266 nm

General Description

The XVL-series are solid-state diode pumped Q-switched lasers. All lasers deliver < 10 ns short pulses with a superior beam quality of $M^2 < 1.2$. Due to their high pulse-to-pulse stability of $\sigma < 2$ % and their sealed housing they are well suited for industrial use. The small dimensions of the laser head and the power supply allow an easy integration in any application. The laser system is completely computer controlled via a RS-232 interface. Differnent trigger control modes are available. The laser head works without heat sink and cooling air.
The system operates autoranging from 87-264 VAC, 47-63 Hz single line-supply.

Applications

- Grayscale marking
- Micro-machining
- Solar cell scribing
- Texturing
- Resistor trimming

Features

- Diode laser pumped
- Sealed housing
- Slot-mounted laser diode
- Excellent beam profile
- High pulse power
- Low pulse-to-pulse fluctuations
- RS-232 interface
- Maintenance free thermo-electrical heat management
- 19”-rack power supply and chiller

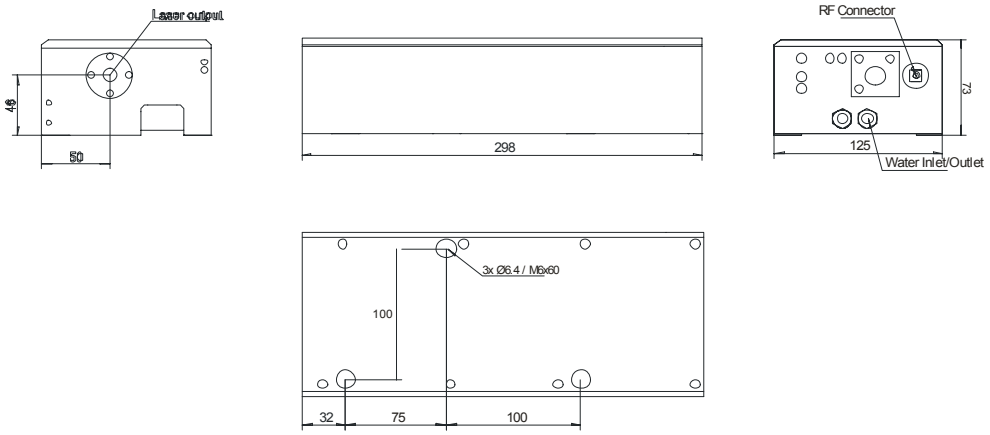
General Characteristics

model	**XVL-1.06-Q**	**XVL-1.06-Q-S**	**XVL-1.06-Q-T**	**XVL-1.06-Q-F**
wavelength	1064 nm	532 nm	355 nm	266 nm
average power	4 W	2 W	1 W	0.3 W
pulse duration	< 10 ns	< 10 ns	< 10 ns	< 10 ns
energy per pulse	266 µJ	130 µJ	66 µJ	20 µJ
repetition rate	1-100 kHz	1-100 kHz	1-100 kHz	1-100 kHz
M^2	< 1.2	< 1.2	< 1.3	< 1.4

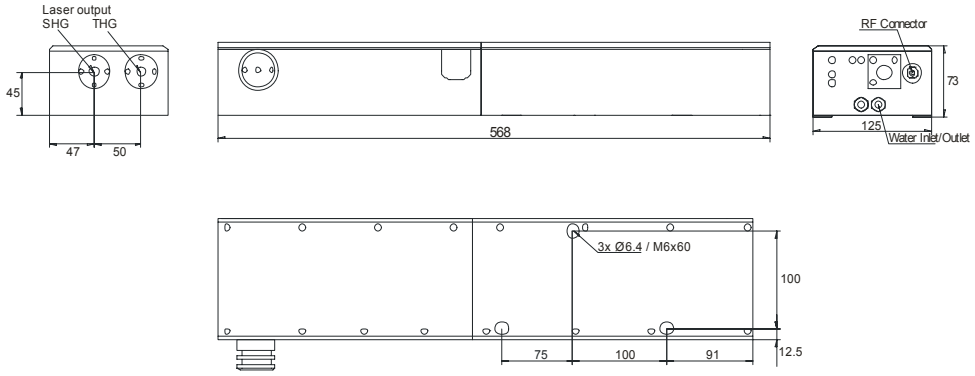
All specifications at 15 kHz pulse repetition rate.
Specifications are subject to change without notice due to product improvement.

XVL

Dimensions XVL-1.06-Q



Dimensions XVL-1.06-Q-S/T/F



System Dimensions (L x W x H, weight)

Laser head XVL-1.06-Q	298 x 125 x 73 mm^3	5 kg
Laser head XVL-1.06-Q-S/T/F	568 x 125 x 73 mm^3	9.2 kg
Power supply	446 x 440 x 134 mm^3	23.5 kg
Chiller	446 x 440 x 134 mm^3	18.7 kg

Electrical Characteristics

Operating voltage	85-264 VAC
Frequency	47 – 63 Hz
Power consumption	800 W max., 240 W typ.

Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.

Class 4 laser (IEC-825)

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