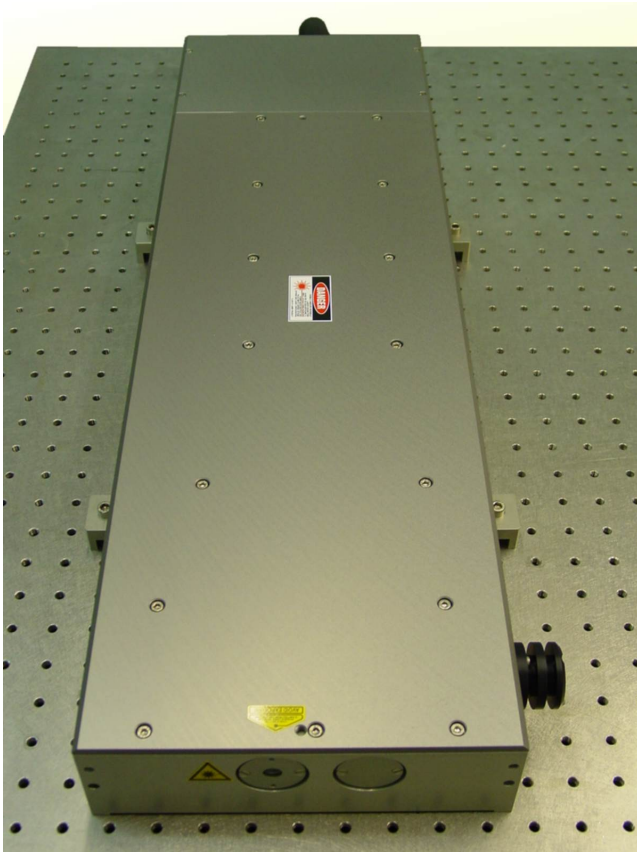


TEM₀₀ beam profile, short pulse duration, Q-switched solid-state laser
Wavelengths 1064 nm, 532 nm and 355 nm



General Description

The XVL-AMP-series are high repetition rate solid-state diode pumped Q-switched lasers with the fundamental wavelength 1064 nm. To achieve both short pulse duration and high output power an oscillator-amplifier configuration is used. This allows also efficient and reliable frequency conversion into the green and UV with a TEM₀₀-mode beam structure. All lasers deliver < 8 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 high repetition rate of up to 100 kHz provides a high throughput. The laser head works without heat sink and cooling air. The laser system is completely computer controlled via a RS-232 interface. Different trigger control modes are available.

The system operates autoranging from 90-240 VAC, 50-60 Hz

Applications

- Rapid prototyping
- Wavelength sensitive processes
- Stereo-lithography
- Display repair
- Micro-machining

Product Specifications

model	XVL-AMP-Q	XVL-AMP-S
wavelength	1064 nm	532 nm
average power	12.0 W	4.0 W
pulse duration	< 8 ns	< 8 ns
energy per pulse	800 µJ	260 µJ
repetition rate	0.1-50 kHz	0.1-50 kHz
M ²	< 1.2	< 1.2

Specifications are subject to change without notice due to product improvement.

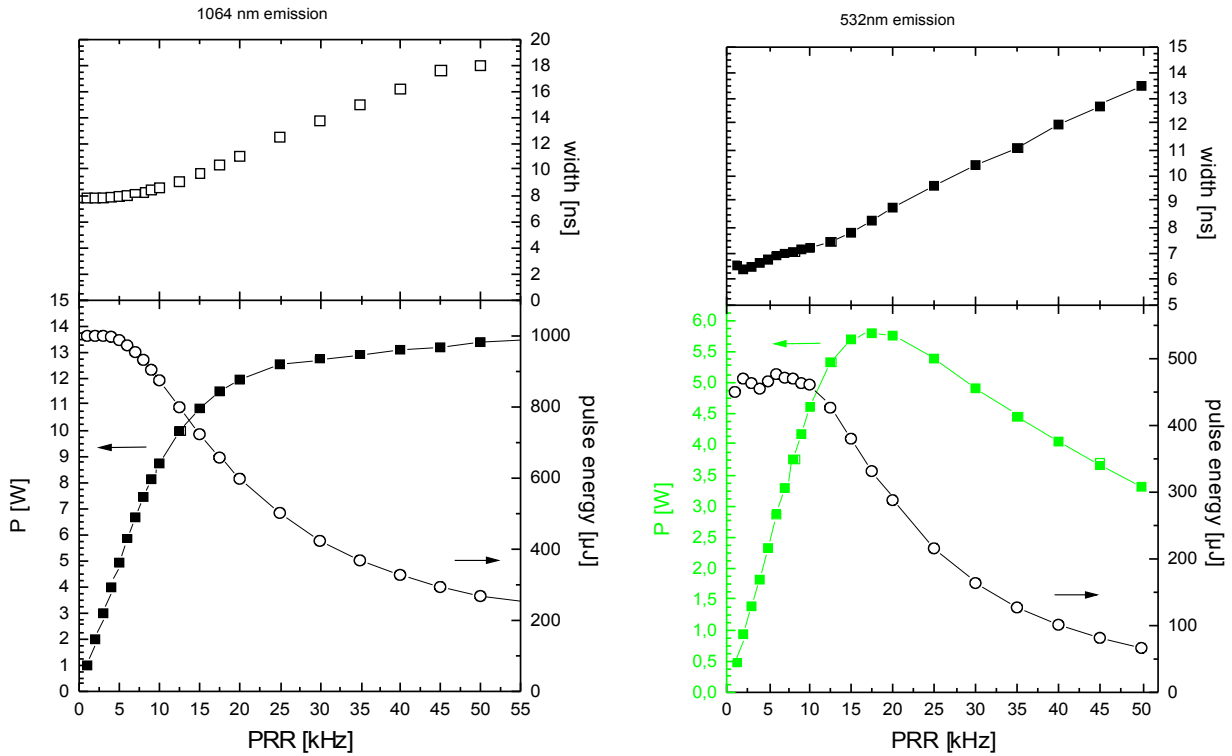
System Dimensions (L x W x H), weight

Laser head	735 x 225 x 72 mm ³	11 kg
Power supplies	446 x 440 x 134 mm ³	23.5 kg
Chiller	446 x 440 x 134 mm ³	24 kg

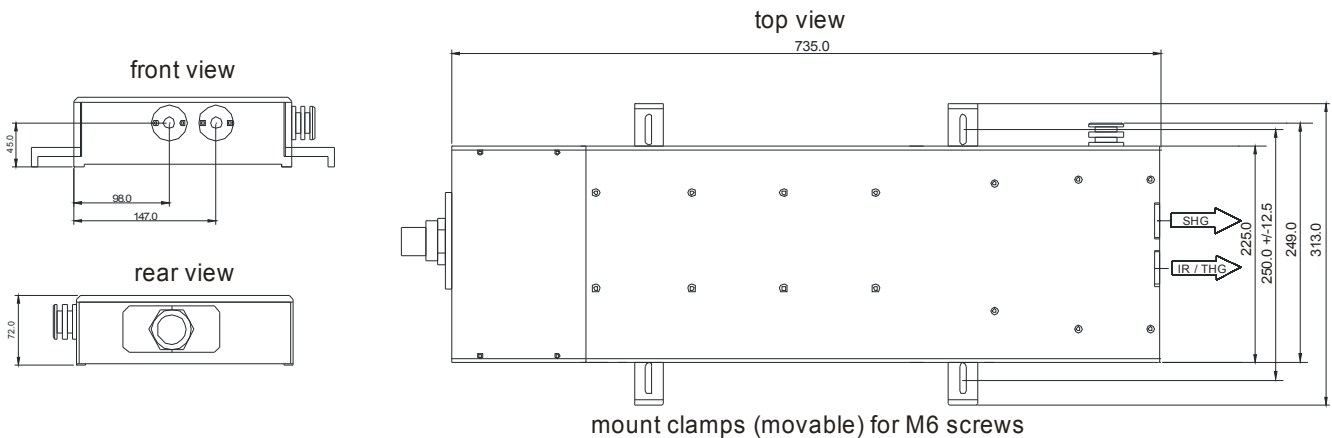
Electrical Characteristics

Operating voltage	85-264 VAC
Frequency	47 – 63 Hz
Power consumption	1300 W max., 450 W typ.

Typical Performance



Dimensions Laser Head



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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