

**TEM₀₀ beam profile, diode laser pumped, Q-switched solid-state laser
Wavelengths 1342 nm, 1064 nm, 671 nm, 532 nm and 447nm**

General Description

The XV-series are solid-state diode pumped Q-switched lasers with the unique fundamental wavelength of 1342 nm or the standard 1064 nm wavelength. This allows the frequency conversion to powerful red, green and blue TEM₀₀-mode laser emission. All lasers deliver < 10 ns short pulses with a superior beam quality of $M^2 < 1.2$. Due to their high pulse-to-pulse energy 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. Different trigger control modes are available. The system operates autoranging from 85-264 VAC, 47-63 Hz.

Applications

- Rapid prototyping
- Wavelength sensitive processes
- Stereo lithography
- Grayscale marking
- Micro-machining

Features

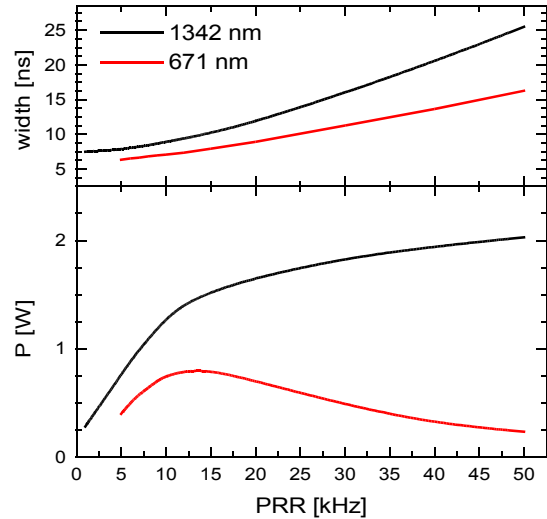
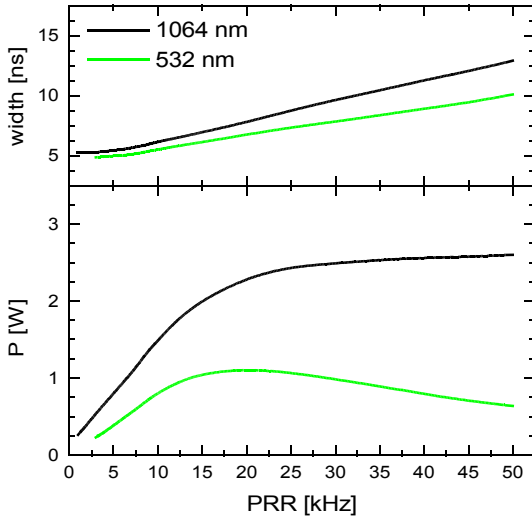
- Diode laser pumped
- Sealed housing
- Slot-mounted laser diode
- Excellent beam profile
- High pulse power
- Low pulse-to-pulse fluctuation
- RS-232 interface
- Maintenance-free thermo-electrical heat management
- 19"-rack power supply

General Characteristics

model	XV-1.34-Q	XV-1.34-Q-S	XV-1.34-Q-T	XV-1.06-Q	XV-1.06-Q-S
wavelength	1342 nm	671 nm	447 nm	1064 nm	532 nm
average power	1.5 W	500 mW	200 mW	2.5 W	1 W
pulse duration	< 10 ns	< 10 ns	< 10 ns	< 10 ns	< 10 ns
energy per pulse	100 μ J	33 μ J	12 μ J	160 μ J	65 μ J
repetition rate	1-100 kHz	1-100 kHz	1-100 kHz	1-100 kHz	1-100 kHz
M ²	< 1.2	< 1.2	< 1.3	< 1.2	< 1.2

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

Output Data, typical



System Dimensions (L x W x H, weight)

Power supply	446 x 440 x 134 mm ³	23 kg
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Electrical Characteristics

Operating voltage	85-264 VAC
Frequency	47 - 63 Hz
Power consumption	550 W max., 140 W typ.



Visible and/or invisible laser radiation. Avoid eye or skin exposure to direct or scattered radiation.
Class 4 laser (IEC-825)