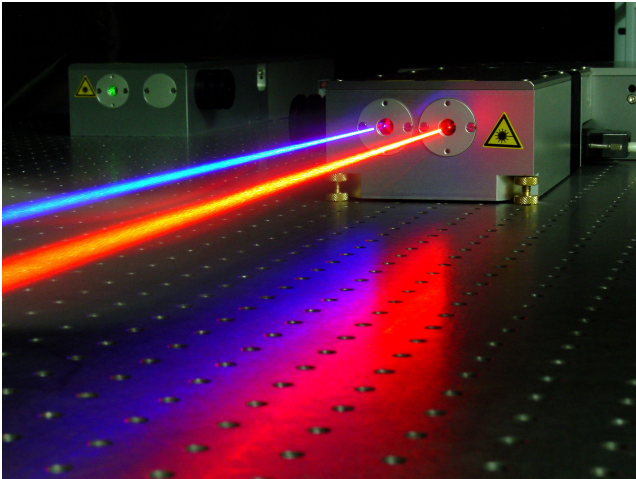


TEM₀₀ beam profile, diode laser pumped, Q-switched solid-state laser
Wavelengths 1342 nm, 671 nm, and 447 nm



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
- Grayscale-marking
- Micro-machining

General Description

The IDOL-series are high repetition rate solid-state diode pumped Q-switched lasers with the unique fundamental wavelength of 1342 nm. This allows the frequency conversion to powerful red, and blue TEM₀₀-mode laser radiation. All lasers deliver < 12 ns short pulses with a superior beam quality of M² < 1.2. Due to their high pulse-to-pulse stability of $\sigma < 2\%$ and their sealed housing they are well suited for industrial

Features

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

System Dimensions (L x W x H, weight)

Laser head	239 x 264 x 72 mm ³	5 kg
Laser head model Q-S/T	567 x 264 x 72 mm ³	10 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

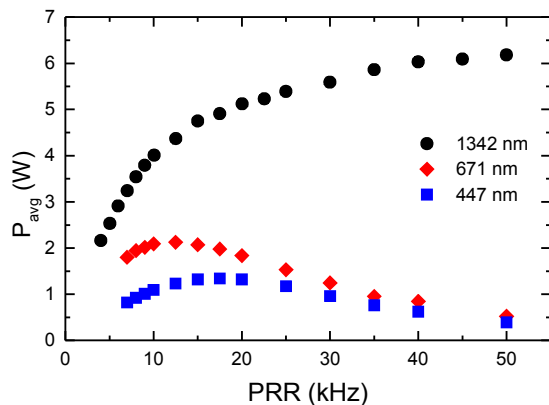
Operating voltage	85-264 VAC
Frequency	47 – 63 Hz
Power consumption	800 W max., 350 W typ.

General Characteristics

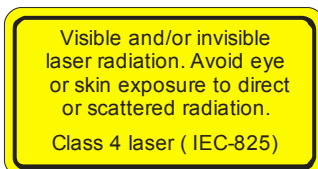
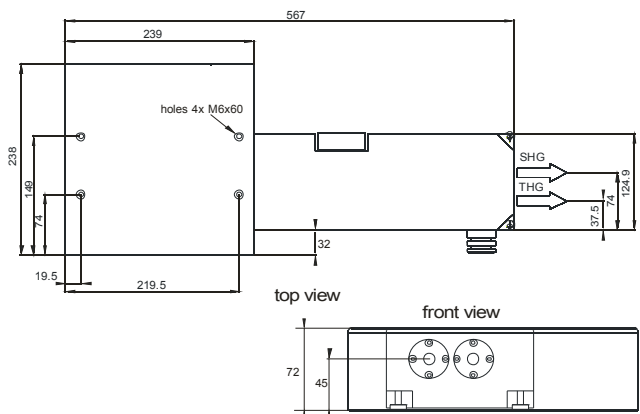
model	IDOL-1.34-Q	IDOL-1.34-Q-S	IDOL-1.34-Q-T
wavelength	1342 nm	671 nm	447 nm
average power	4.5 W	2.0 W	1.2 W
pulse duration	< 12 ns	< 12 ns	< 12 ns
energy per pulse	300 µJ	130 µJ	66 µJ
repetition rate	1-100 kHz	1-100 kHz	1-100 kHz
M ²	< 1.2	< 1.2	< 1.3

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

Typical Performance



Dimensions Laser Head



Xiton Photonics GmbH
Opelstraße 10
D-67661 Kaiserslautern
Germany

Tel.: +49 (0)631 627 59 15
Fax: +49 (0)176 212 590 78
sales@xiton-photonics.com
www.xiton-photonics.com