

Real deep UV Q-switched solid-state laser,
224 nm wavelength, TEM₀₀ beam profile



Applications

- Fiber Bragg grating fabrication
- Wavelength sensitive processes
- Stereo-lithography
- Display repair
- Micro-machining
- Semi-conductor inspection
- Replacement of freq. doubled Ar-Ion lasers
- Photoluminescence measurements

General Description

The IMPRESS 224 laser system is a high repetition rate solid-state diode pumped Q-switched laser with an emission wavelength of 224 nm. Its precise TEM₀₀-mode laser beam is well suited for metrology and micro-machining such as semi-conductor or display repair. Due to the very short wavelength structure sizes below 1 μm are possible in direct writing applications. The laser delivers < 9 ns short pulses with a superior beam quality of M² < 1.6. 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, 47-63 Hz.

Features

- Extremely short UV wavelength
- Diode laser pumped
- Slot mounted laser diode
- Excellent beam profile
- High pulse power
- Ultra low maintenance costs
- "Green Photonics"
- 24/7 continuous industrial use

Product Specifications

Model	IMPRESS 224
wavelength	224 nm
average power	300 mW
pulse duration	< 9 ns
energy per pulse	> 30 μJ
repetition rate	0.1-30 kHz
M ²	< 1.6

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

Outstanding in FBG writing

- Extremely fast writing
- No Hydrogen loading necessary

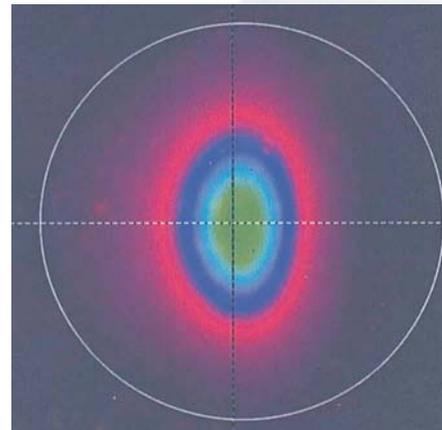
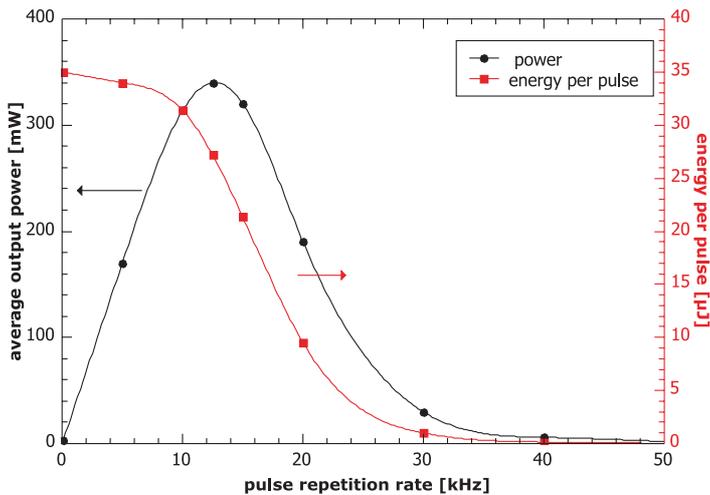
System Dimensions (L x W x H), weight

Laser head	507 x 286 x 77 mm ³	12.2 kg
Power supply	446 x 440 x 134 mm ³	16.8 kg
Chiller	446 x 440 x 134 mm ³	18.5 kg

Electrical Characteristics

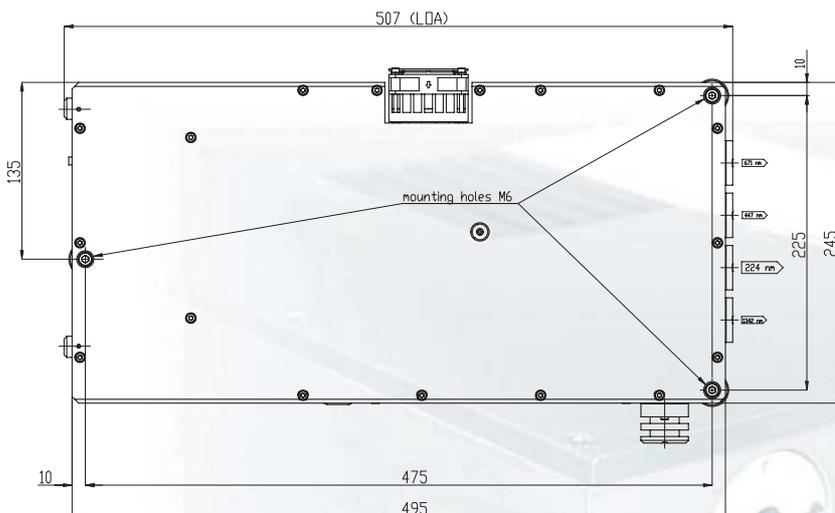
Operating voltage	85-264 VAC
Frequency	47 – 63 Hz
Power consumption	350 W typ.

Typical Performance

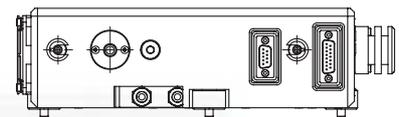


Dimensions Laser Head

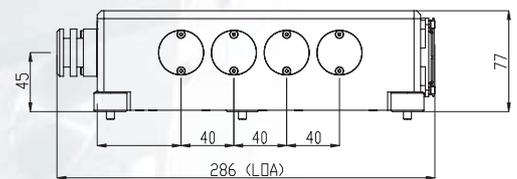
top view



rear view



front view



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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