

**TEM₀₀ beam profile, air cooled, Q-switched solid-state laser
Wavelengths 532 nm and 671 nm**



The laser head works without recirculation cooler or additional heat sink. The laser system is completely computer controlled via a RS-232 interface. Different trigger control modes are available.

The system operates auto-ranging from 90-240 VAC, 47-63 Hz.

Applications

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

General Description

The INCA-series are high repetition rate solid-state diode pumped Q-switched lasers with an emission wavelength of 532 nm or 671 nm. Their precise TEM₀₀-mode laser beam is well suited for micro-machining such as semiconductor or flat-panel-display repair and trimming systems. The pulse duration of the laser varies depending on the set pulse repetition rate between 10 ns and 60 ns with a superior beam quality of $M^2 < 1.4$. Due to their high pulse-to-pulse stability of $\sigma < 2\%$ and their sealed housing they are ideal for continuous 24/7 industrial use. A motorized laser beam attenuator is available as an option. It is build inside the INCA housing and allows the variation of the laser output power without any change in the beam characteristic. The high repetition rate of up to 300 kHz provides a high throughput.

Features

- Very high pulse repetition rate
- Diode laser pumped
- Small footprint
- Slot mounted laser diode
- Excellent beam profile
- Motorized variable attenuator (optional)
- High pulse power
- High pulse-to-pulse stability
- Air cooled
- 19"-rack power supply

Product Specifications

Model	INCA-532-Q	INCA-671-Q
wavelength	532 nm	671 nm
average power	> 3.0 W	> 1.5 W
pulse duration	< 12-80 ns	< 20-120 ns
energy per pulse	> 140 μ J	> 80 μ J
repetition rate	15-300 kHz	15-200 kHz
M ²	< 1.4	< 1.4

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

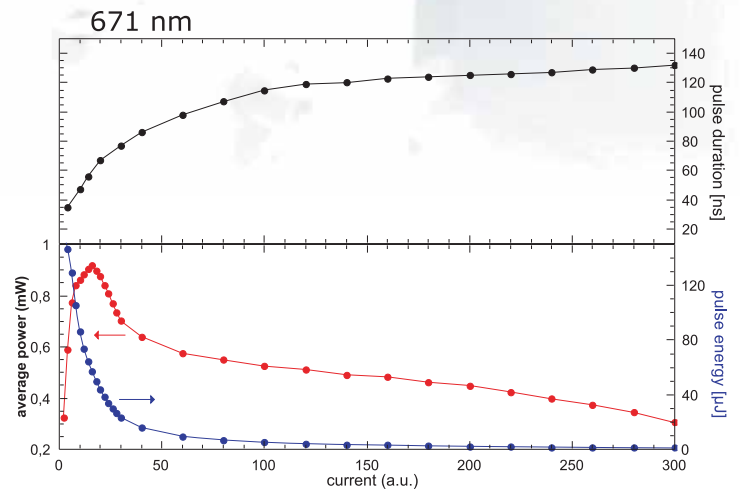
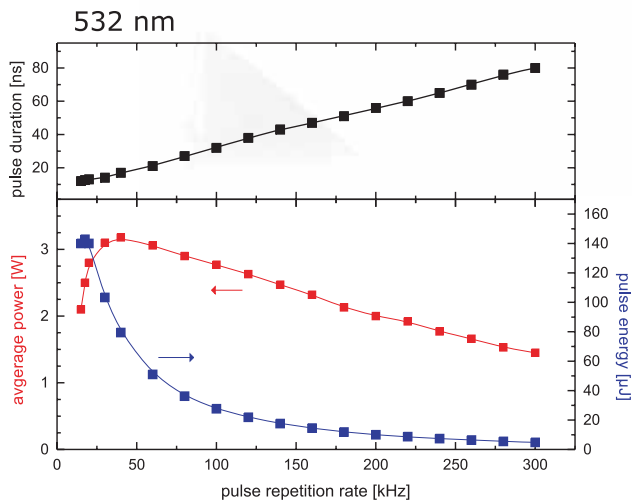
System Dimensions (L x W x H), weight

Laser head	222 x 214 x 70 mm ³	5.0 kg
Power supply	446 x 440 x 134 mm ³	16.8 kg

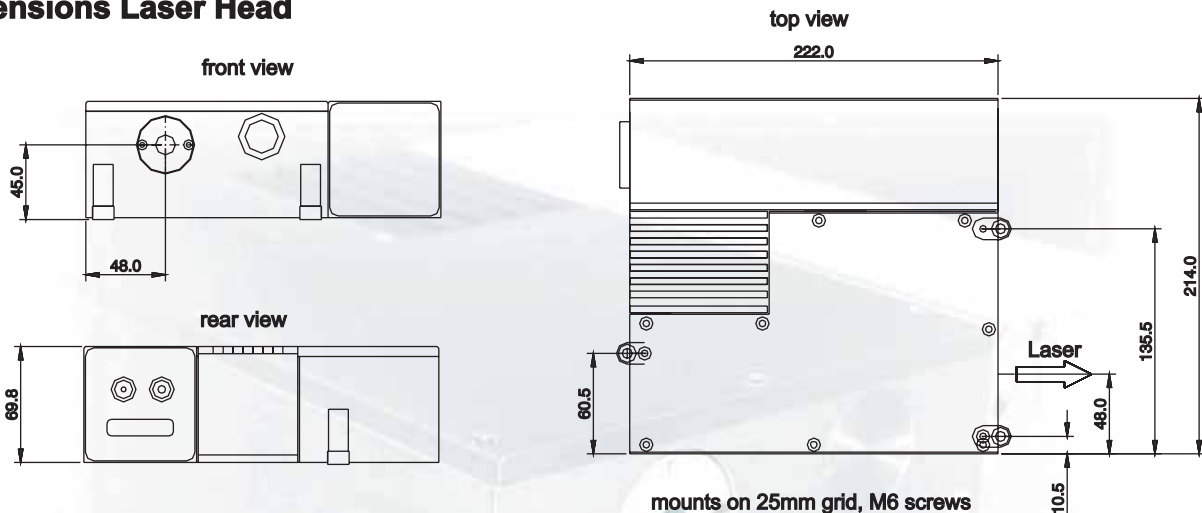
Electrical Characteristics

Operating voltage	85-264 VAC
Frequency	47 - 63 Hz
Power consumption	250 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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