Indie series

Industrial grade Q-switched diode pumped Nd:YVO_4 laser

A diode pumped solid state Nd:YVO_4 lasers offer high output power of infra-red (1064 nm) radiation together with high repetition rate.

The **innovative** electro-optical Q-switch is a key technology for generation of the record short pulses between all high power nanosecond lasers.

High beam quality together with short pulse duration and high output power make Indie series laser to **high brilliance** source (tool) for processing of most engineering materials used in semiconductor and electronic industry.

Rugged body made of machined aluminum as well as **sealed cavity** ensures stable and reliable operation in diverse conditions of laboratory and factory working place.

The Indie series lasers are equipped with **intelligent control system**. Laser parameters are monitored continuously in order to ensure long term repeatability of performance and easy adaptation of the laser into high throughput material processing systems.

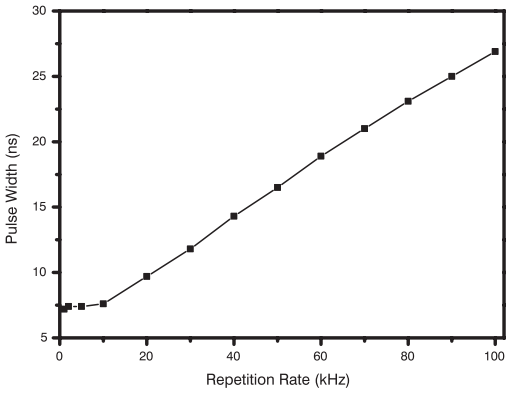
Short pulse duration, high repetition rate and robust design make these lasers an attractive tool for wide range of material processing applications, including metals, semiconductors, composites, dielectrics.

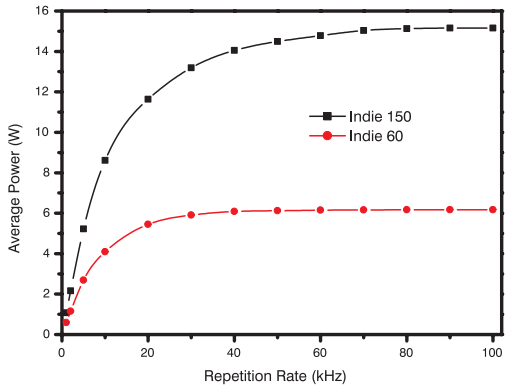
APPLICATIONS

- Marking
- Engraving
- Micromachining
- Ablation
- Drilling
- Cutting
- Structuring
- Trimming
- Mask repair
- Cleaning
- Your application is welcome...

FEATURES

- 15 W output power at 1064 nm
- High brilliance radiation
- Up to 100 kHz repetition rate
- Robust and sealed cavity
- Low operating costs
- Electro-optical Q-switching
- No first pulse problem
- Internal output power monitoring
- Internal/external triggering
- Processor control via USB/CAN/ RS232
- Remote control via keypad
- No external water cooling





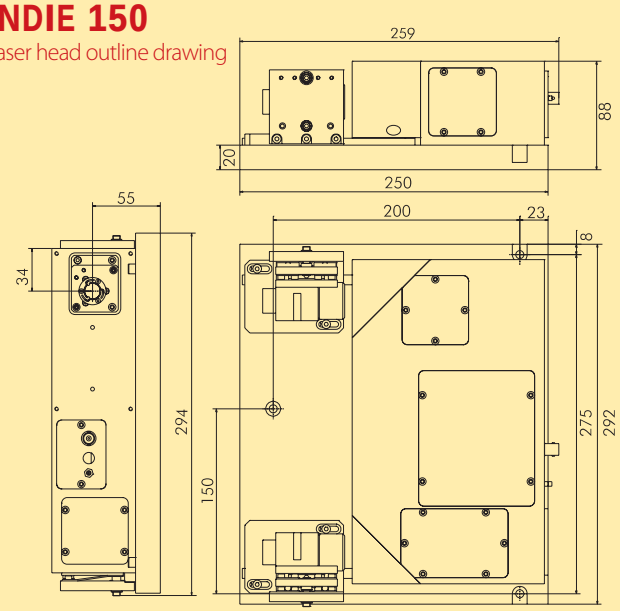
EKSPLA
An EKSMA Group Company

Specifications

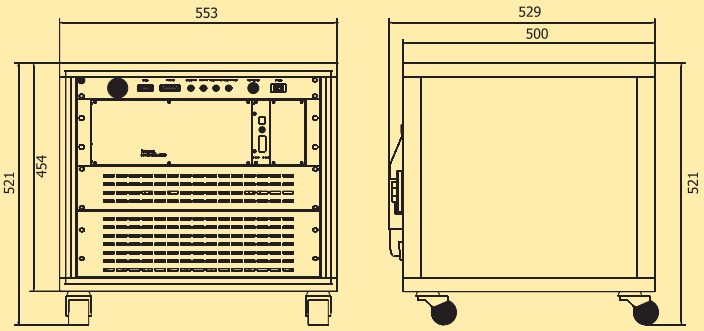
Model	Indie 60	Indie 150
Output wavelength, nm	1064	
Output power, W	6	15
Pulse to Pulse energy stability, %	<1 (rms) at 20 kHz	
Power stability, %	± 2 over 8 hours	
Pulse duration, ns	6-28	
Repetition rate, kHz	Up to100	
Beam diameter, mm	~ 0.7	
Beam profile	TEM_{00}	
M^2	<1.5	
Beam divergence, mrad	<3.0	
Beam ellipticity	>0.9	
Polarization	Linear, horizontal>100:1	
Timing jitter, ns	<0.5 @ 1-30kHz	
Physical characteristics		
Laser head size (W x H x L) , mm	164 x 72 x 265	294 x 88 x 259
Power supply/pump diode unit (W x H x L) , mm	472 x 289 x 461	553 x 521 x 529
Umbilical length, m	2.8 (up to 10m)	
Operating requirements		
Ambient temperature, °C	18-27	
Relative humidity (non-condensing), %	10-80	
Voltage	100-240 VAC, single phase 50/60 Hz	
Power, kW	<0.25	<0.6

INDIE 150

Laser head outline drawing

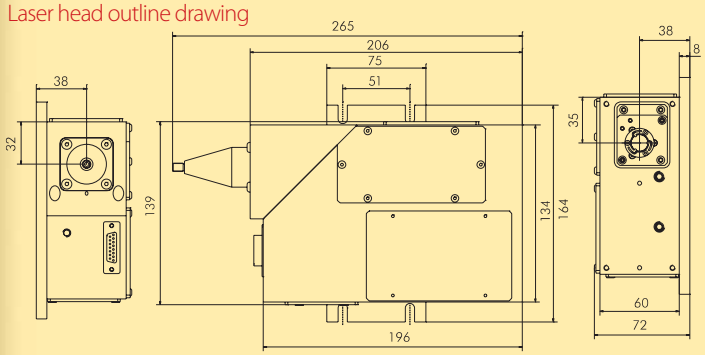


Power supply outline drawing

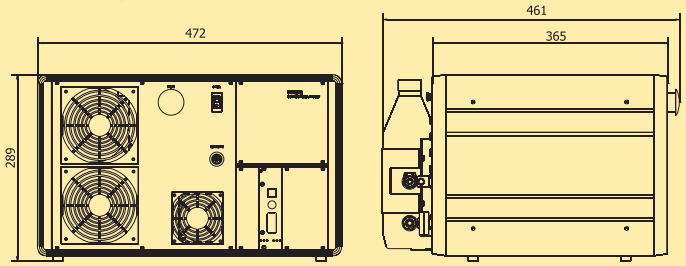


INDIE 60

Laser head outline drawing



Power supply outline drawing



MACHINING SAMPLES

Marking of aluminium

Marking of stainless steel

Marking of brass

Marking of anodized aluminium

Cutting of copper foil

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