

Compact Nd:YAG Q-switched lasers

The Dawa series lasers, developed in 2007, feature an industrial-grade design compatible with OEM system integration. These lasers are suitable for a variety of applications including LIBS, LIDAR, laser-induced fluorescence, laser ultrasound, and LCD repair. The Dawa series cover 1-20Hz with pulse energy ranging from 100 mJ to 300 mJ@1064nm. It also offers optional SHG, THG, and FHG.

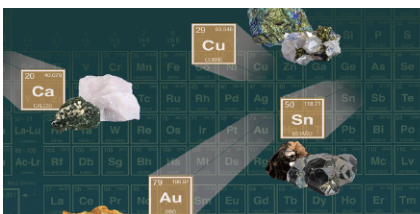
With a compact and robust structure, the Dawa series is designed with a strong emphasis on safety and electromagnetic compatibility, crucial for system integration. The safety features include protective shutters, internal power interlocks, flow switches, emergency stop switches, and casing protection. The Dawa series achieved CE certification in 2014.

Features

- Pulse energy 100mJ~300mJ@1064nm
- 1064,532,355,266nm available
- Modular design, quantity production available
- Industrial design for long-term stability
- Customization available

Applications

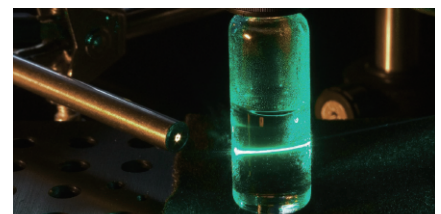
- Laser Induced Breakdown Spectroscopy (LIBS)
- LiDAR
- Laser Induced Fluorescence (LIF)
- Laser Cleaning
- Laser Cavitation
- LCD Repair
- Nonlinear Optics



LIBS



LIDAR



LIF



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Specifications

Models ¹		Dawa-100	Dawa-200	Dawa-300
Repetition Rate		1-20Hz	1-20Hz	1-10Hz
Pulse Energy:	1064nm	100mJ	200mJ	300mJ
	532nm	50mJ	100mJ	150mJ
	355nm	20mJ	40mJ	60mJ
	266nm	10mJ	20mJ	30mJ
Energy Stability ² (RMS)	1064nm	≤0.7%	≤0.7%	≤0.7%
	532nm	≤1.5%	≤1.5%	≤1.5%
	355nm	≤3%	≤3%	≤3%
	266nm	≤3%	≤3%	≤3%
Pulse Width ³	1064nm	≤9ns	≤8ns	≤7ns
	532nm	≤8ns	≤7ns	≤6ns
	355nm	≤7ns	≤6ns	≤5ns
	266nm	≤7ns	≤6ns	≤5ns
Divergence ⁴	1064nm	Multi-mode: ≤3mrad; Flat-top mode: ≤1mrad		
Pointing Stability(RMS)	1064nm	≤50μrad		
Jitter ⁵ (RMS)		≤0.5ns		
Beam Diameter ⁶	1064nm	5mm	6mm	7mm
Spatial Mode Profile	Near Field	>70%		
	Far Field	>95%		
Cooling		Air to water		
Electrical Service		220V-50/60Hz-10A		
Power Consumption		500W		
Cable Length	Control Line	3m		
	Power Line	1.8m		
	Umbilical Line	3m		

1. All specifications, unless otherwise stated, are for Q-Switched 1064nm operation and are subject to change without notice.

2. Dev. to average (shot to shot for 99% of pulses).

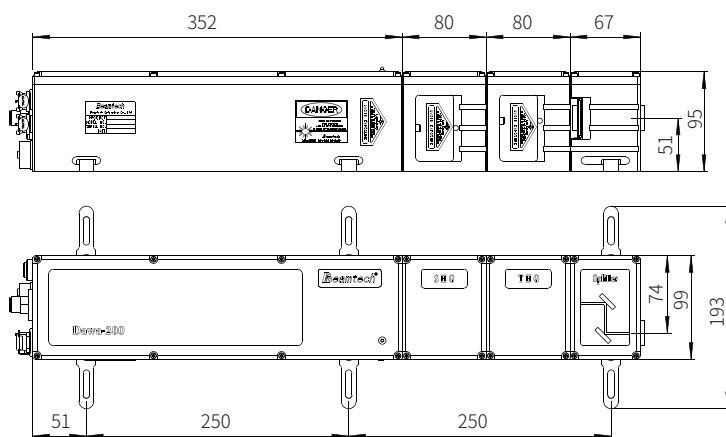
3. Full width half max (FWHM).

4. Full angle at 1/e² of the peak.

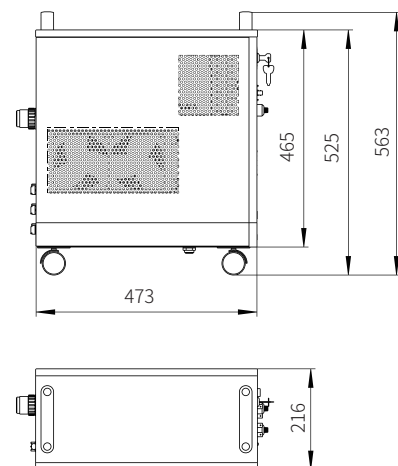
5. With respect to external trigger.

6. Measured at the laser output.

Dimensions



Dawa-100/200/300



Power Supply & Cooling System