

NS-series Compact Flashlamp Pumped Nd:YAG Q-switched Laser Systems



General Information

Most popular variation of our lasers based on classic stable or VRM resonators. Oscillator only design provides with up to 320mJ output energy at fundamental wavelength (with 260mJ for beam quality close to TEM-00, $M^2 \leq 2$)

All systems consist of a very compact laser head pumped by LPS-1000 unit equipped with touchscreen remote controller along with RS-485 / USB / Ethernet interfaces.

Detachable harmonics generators for 532, 355, 266 and 213 nm. Automatic wavelength switching option.

Applications

- LIDAR
- Ti:Sa / OPO / Dye Lasers Pumping
- LIBS / Spectroscopy
- LIDT
- LIF
- Material Ablation
- Laser Peening

Specifications⁽¹⁾

	NS-180	NS-200	NS-320	NS-150-VRM	NS-170-VRM	NS-260-VRM
Repetition rate, Hz	20	10	15	20	10	15
Pulse duration (FWHM), ns: 1064 nm	≤12			≤10		
Pulse energy, mJ ⁽²⁾ : 1064 nm	180	200	320	150	170	260
532 nm	100	120	200	80	90	130
355 nm	25	30	60	40	50	65
266 nm	10	15	25	20	25	35
Energy stability, %1064 nm	±2.5			±2.0		
Jitter, ns ⁽³⁾	±1.5			±1.0		
Polarization	Linear					
Beam diameter (near field), mm	~5		~6,5	~5		~6,5
Beam profile	Multimode, bell-shaped			Near-TEM00 (Gaussian fit >70% in near field, >90% in far field)		
Beam divergence (full angle for 86% of energy), mrad	≤1.5			≤0.5		
Beam pointing stability, μrad	±40					
Laser head size (without harmonics modules), L x W x H, mm	325 x 125 x 107					
Power supply / cooling system model Size (D x W x H), mm / Weight, kg	LPS-1000, 459 x 462 x 281 / ~22					
Mains parameters	90...250 VAC, 50/60 Hz, single phase					
Operation temperature, °C	15...30, non-condensing conditions					

⁽¹⁾ Specifications are subject to change without notice due to continuous improve of products

⁽²⁾ Fifth harmonic generator parameters are available on request

⁽³⁾ With respect to external TTL triggering signal

Drawings

