

# HG | PHAROS

## Automated Harmonic Generators

### FEATURES

- 515 nm, 343 nm, 257 nm, or 206 nm output
- Automated harmonic selection
- Industrial-grade design



PHAROS with harmonic generator

PHAROS lasers equipped with automated harmonic generators (HGs) provide a selection of fundamental (1030 nm), second (515 nm), third (343 nm), fourth (257 nm), or fifth (206 nm) harmonic outputs using software control.

HGs are perfect for industrial applications that require a single-wavelength output. Modules, mounted directly at the output of the laser, are fully integrated into the system.

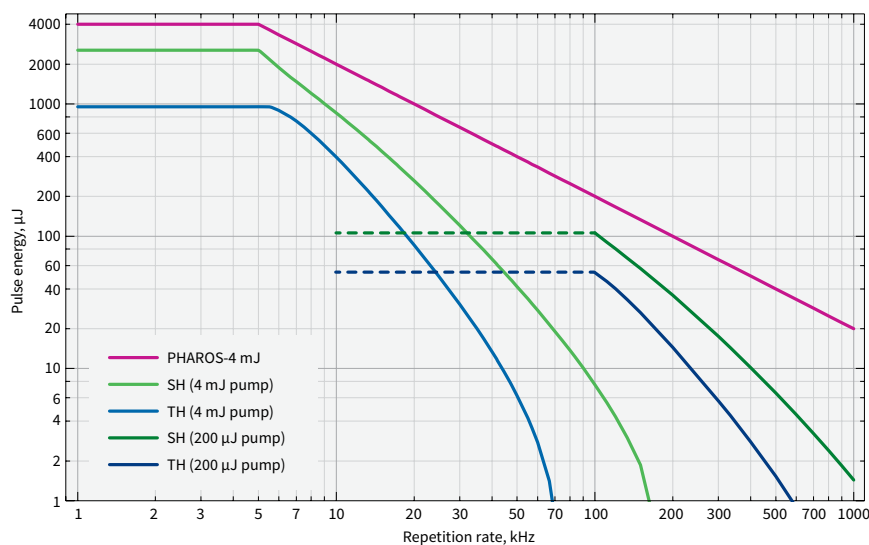
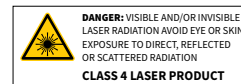
### SPECIFICATIONS

Model	2H (-HE)	2H-3H (-HE)	2H-4H (-HE)	4H-5H
Output wavelength <sup>1)</sup> (automated selection)	1030 nm 515 nm	1030 nm 515 nm 343 nm	1030 nm 515 nm 257 nm	1030 nm 257 nm 206 nm
Pump pulse energy	20 – 4000 $\mu$ J	50 – 4000 $\mu$ J	20 – 4000 $\mu$ J	200 – 1000 $\mu$ J
Pump pulse duration	100 – 500 fs			
Conversion efficiency	> 50% (2H)	> 50% (2H) > 25% (3H)	> 50% (2H) > 10% (4H) <sup>2)</sup>	> 10% (4H) <sup>2)</sup> > 5% (5H) <sup>3)</sup>
Beam quality ( $M^2$ ) typical values	$\leq 400 \mu$ J pump	<1.15 (2H) <1.2 (3H)	<1.15 (2H) n/a (4H)	n/a
	> 400 $\mu$ J pump	<1.2 (2H) <1.3 (3H)	<1.2 (2H) n/a (4H)	

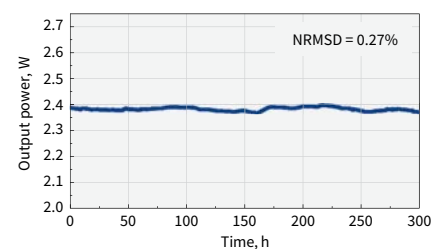
<sup>1)</sup> Depends on pump laser model.

<sup>2)</sup> Maximum output power of 1 W. Please contact sales@lightcon.com for higher power option.

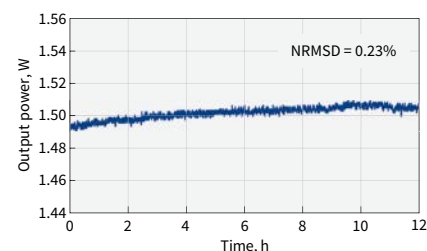
<sup>3)</sup> Maximum output power of 150 mW.



Pulse energy vs repetition rate of PHAROS with HG



3H output power stability



4H output power stability