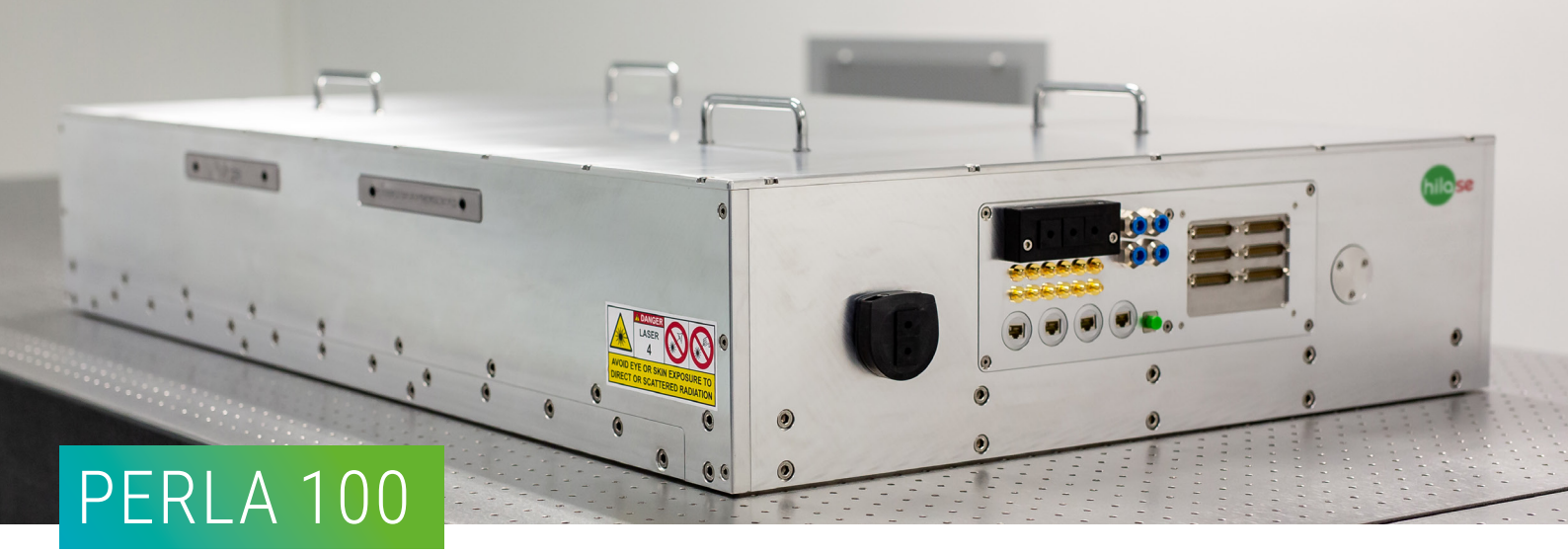

PERLA 100

PERLA series – Ultra-short pulse lasers with high average power.

PERLA series lasers are compact laser systems based on a thin-disk regenerative amplifier delivering picosecond pulses with pulse energy up to 40 mJ. The product portfolio covers repetitions from 1 to 200 kHz. It incorporates a fibre front-end seeding the amplifier and a versatile control system allowing precise control and monitoring of the laser. The robust design guarantees excellent stability and maintenance free operation.

Strengths

- Unique combination of energy per pulse and beam quality
- Suitable for multi-beam micromachining and surface structuring
- Extra fast process speed and high efficiency using 100s of beams at once
- High harmonics available (SHG, THG, FHG)
- Optical parametric amplifier available
- Laser source can be modified to fit your application

Technical Specifications

Specification	Perla 100	Perla 500
Centre wavelength	1030 nm	1030 nm
Average power	Max 100 W	Max 500 W
Power stability	< 0.2% RMS	< 0.2 % RMS
Pulse energy	max 40 mJ	Max 20 mJ
Pulse energy stability	< 0.5% RMS	< 0.5% RMS
Pulse length	< 2 ps	< 2 ps
Repetition rate	1 -200 kHz	1-100 kHz
Beam quality (M2)	< 1.2	< 1.4
Output polarization	Linear, > 100:1	Linear, > 100:1
Output beam diameter	~ 3 mm	~ 3 mm
Dimensions	1,3 m x 0,8 m x 0, 3 m	1,3 m x 0,8 m x 0, 3 m

Operating requirements	
Operating voltage	5P/16A/400V
Operating temperature	23±1° C
Relative humidity	20 – 50 % (non-condensing)

- **Stable and reliable laser source**
- **Flexible modifications of output parameters**
- **Customized solutions available upon request**

Areas of Application

- High Harmonics Generation
- Optical Parametric Generation
- Laser Induced Damage Threshold
- Efficient Micromachining

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