

HELIOS-HE-DATASHEET

Parameter	HELIOS-10W-HE	HELIOS-20W-HE
Maximum output power	10W	20W
Maximum single pulse energy	1mJ	2mJ
Pulse duration	<250fs (190fs optional)	
Pulse width adjustment range	250fs - 10ps (190fs - 10ps optional)	
Repetition frequency range	10kHz - 100kHz (10kHz - 1MHz) optional	
Pulse selection	Single shot - 100kHz (Single shot - 1MHz) optional	
Central wavelength	1036 ± 5nm	
Polarization	Linear polarization	Vertical
Beam quality	$M^2 < 1.2$	
Beam diameter	$5 \pm 1\text{mm}$	$6.2 \pm 0.6\text{mm}$
Pulse pointing stability	$< 20 \mu\text{rad}/^\circ\text{C}$	
Pre-pulse contrast	$< 1:1000$	
Post-pulse contrast	$< 1:500$	
Pulse energy stability	$< 1\% \text{ RMS @8h}$	
Long-term power stability	$< 0.5\% \text{ RMS @24h}$	
Dimensions	668 × 400 × 223mm (L×W×H)	871 × 418 × 211mm (L×W×H)
Weight	61kg	71kg
	Expansion Options	
Harmonic output	Integrable, 516nm, 345nm, 259nm	
Optical parametric amplification output	Integrable, 210 - 16000nm	
MPC short pulse output	Integrable, output pulse width <35fs, energy transmission efficiency >90%	
Operating Modes	PSO, POD, Gate, Burst, etc.	
Remaining weight	24kg (Water-cooled machine) +2kg (frequency doubling)	
Power supply requirements	Laser head: AC 220V/10A ; Water-cooled machine: 220V/0.6-7.7A/1.26kW (CWUP-20AI)	