

HELIOS-HP-DATASHEET

Parameter	HELIOS-10W-HP	HELIOS-20W-HP
Maximum output power	10W	20W
Maximum single pulse energy	400μJ	
Pulse duration	<250fs	
Pulse width adjustment range	250fs - 10ps	
Repetition frequency range	25kHz - 1MHz	50kHz - 1MHz
Pulse selection	Selectable within single shot to ~MHz	
Central wavelength	1030 ± 10nm	
Polarization	Linear polarization	
Beam quality	$M^2 < 1.2$	
Beam diameter	5 ± 1mm	
Pulse pointing stability	< 20 μrad/°C	
Pre-pulse contrast	<1:1000	
Post-pulse contrast	<1:500	
Pulse energy stability	<1% RMS @8h	
Long-term power stability	<0.5% RMS @24h	
Dimensions (L×W×H)	733 × 400 × 219mm (L×W×H)	
Weight (kg)	50kg	
	Expansion Options	
Harmonic output	Integrable, 515 nm, 343 nm, 257 nm	
Optical parametric amplification output	Integrable, 210 - 16000nm	
MPC short pulse output	Integrable, output pulse width <45 fs, energy transmission efficiency >90%	
Remaining weight (kg)	24kg (Water-cooled machine) +5kg (frequency doubling)	
Power supply requirements	Laser head: AC 220V/10A ; Water-cooled machine: 220V/0.6-7.7A/1.26kW (CWUP-20AI)	