

HELIOS-40W-DATASHEET

Parameter	HELIOS-40W-HP
Maximum output power	40W
Maximum single pulse energy	400μJ
Pulse duration	<250fs
Pulse width adjustment range	250fs-10ps
Repetition frequency range	100kHz - 1MHz
Pulse selection	Selectable within single shot to ~MHz
Central wavelength	1030 ± 10nm
Polarization	Vertical
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)	831 × 585 × 218mm (L×W×H)
Weight (kg)	100kg
	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)