

UV Picosecond Laser

HL SERIES

HL-PS-355-30



This series is used in the processing of brittle materials and super-hard materials, and can effectively address the micro-machining bottlenecks in industries such as panel displays, photovoltaics, and semiconductors.

► Application

- High-end electronic products appearance logo
- Processing traceability marks with anti-acid corrosion and anti-oxidation functions on metal medical devices
- Cutting and drilling on plastics, oxides and organic materials, or removal of surface coatings
- Ultra-precise markings and invisible QR codes finely marked on glass material
- Replacing chemical corrosion processing depth on metal materials
- Precision moulding of superhard materials

► Features

- Using independently developed seed sources
- Selectable burst pulse train quantity and frequency division quantity
- POL/POD function
- 7*24 hours, long-term stable operation
- Single pulse ~ 4MHz repeat frequency adjustable

► Sample Display



QR code marking of metal medical devices



Stainless steel watch back cover marked with deep characters



Glass surface frosting



Stainless steel sheet material processing 3μm microporous

Technical Parameters

HL-PS-355-30

Optical Parameters

Wavelength	355 nm
Max. Power	30 W
Repetition Rate	Single pulse-4000kHz
Pulse Width	< 10 ps
Pulse Energy Stability (rms)	< 2% rms
Power Stability	< 2% rms

Beam Characteristics

Spatial Mode	TEM ₀₀
Beam Quality	M ² < 1.3
Polarization Ratio	> 100:1 (vertical)
Beam Diameter	2.4mm ± 0.3mm
Divergence Full Angle (1/e ²)	< 2 mrad
Circularity	> 90%
Beam Pointing Stability	≤ ±25 μrad/°C

Working Conditions

Power Supply	100~240V, 50~60Hz
Warm-up Time	Standby to ready < 10 minutes; cold start to readiness < 30 minutes
Temperature Range	15~30°C during working hours; 0~50°C during non-working hours
Humidity Range	10~70%, non-condensation
Cooling Requirements	Water cooling, cooling capacity ≥ 1000W, accuracy ± 0.1°C, flow rate ≥ 6L/min

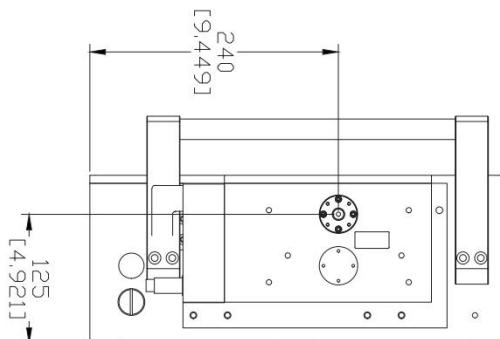
Physical Properties

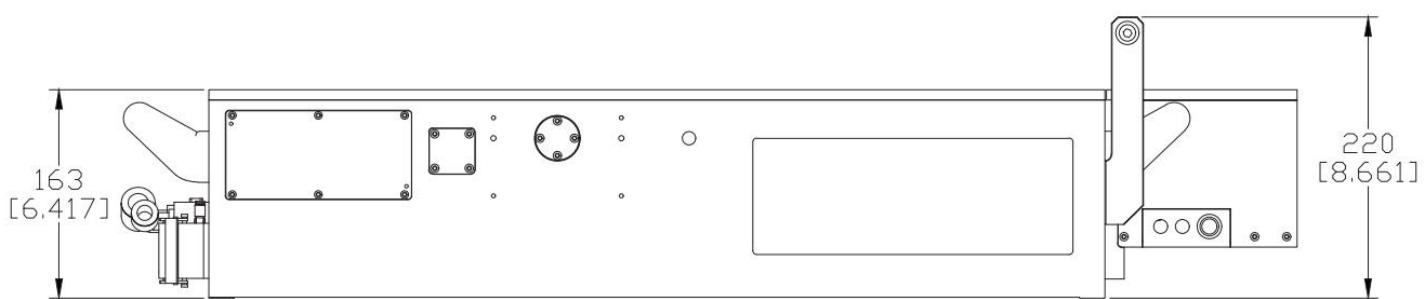
Laser Dimensions	850mm×400mm×163mm (L x W x H)
Laser Weight	67.5 kg
Controller Dimensions	440mm×432mm×132mm (L x W x H)
Controller Weight	19.3 kg

► All specifications are typical data and subject to change without notice due to product improvements.

Laser Dimensions (mm)

Front View



Side ViewTop View