

Electrical properties

Rated voltage range	AC 100–240 V
Rated frequencies	50/60 Hz
Rated current max.	3 A / 230 V respectively 6.3 A / 100 V
Max. power consumption	630 W, typically < 400 W
Main supply overvoltage	Category II
Grounding equipment conductor	Required
Electrical safety	In accordance with IEC 61010-1:2010
Laser safety	Class 1, internal laser class 4 according to IEC 60825-1:2014

Ambient conditions

Operating conditions	Indoors
Operating temperature	21°C ± 2°C
Temperature stability	± 1°K/h
Maximum relative humidity	60%
Sound pressure level	55 dB
Air pressure for internal vibration isolation	Not required

Weights and measures

Total weight	156 kg
Dimensions (W x L x H)	94 x 71 x 65 cm ³
Minimum wall distance	10 cm

Specifications

Accessible writing area	Up to 120 x 100 mm ²				
Horizontal and vertical resolution	≤ 10 nm				
Max. travel distance z-axis	49 mm				
Objectives	40x/1.4	20x/0.7	10x/0.4	10x/0.3	5x/0.25
Horizontal feature size	≤ 220 nm	≤ 420 nm	≤ 730 nm	≤ 980 nm	≤ 1.2 μm
Vertical feature size	≤ 550 nm	≤ 2.9 μm	≤ 9.2 μm	≤ 16 μm	≤ 23 μm
Field of view	Ø 0.66 mm	Ø 1 mm	Ø 2 mm	Ø 2 mm	Ø 5 mm
Typical writing speed	150 mm/s	300 mm/s	600 mm/s	600 mm/s	1,200 mm/s
Typical throughput in galvo mode	0.05 mm ³ /h	0.25 mm ³ /h	4 mm ³ /h	4 mm ³ /h	30 mm ³ /h
Typical throughput using adaptive resolution	0.25 mm ³ /h	2.25 mm ³ /h	40 mm ³ /h	40 mm ³ /h	300 mm ³ /h

By adapting the parameters, a throughput of > 450 mm³ per hour can be achieved.

Femtosecond laser

Max. average power	1,000 mW
Pulse length	90 fs
Center wavelength	780 nm
Repetition rate	80 MHz

Software

THINK3D

