Product Datasheet

BCN3D Omega I60

Printer properties

3D Printing Technology	Fused Filament Fabrication (FFF)
Architecture	Independent Dual EXtruder (IDEX)
Printing volume (W x D x H)	450 x 300 x 450 mm (17.7 x 11.8 x 17.7 in)
Build chamber	Heated Chamber up to 70 ºC (158 ºF) Fully enclosed
Air ffiltering	Category H13 HEPA filter Active Carbon filter
Number of extruders	2
Warranty	12 Months (Global)
Extruder system	Direct drive bondtech LGX Pro extruders Quick-swap Hotend Tips 1.75mm Filaments
Printing modes	Single mode Duplication mode Mirror mode Dual mode

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Automatic Calibration System	Main features: • Accurate Z homing • Quick assisted bed leveling • Automatic XYZ offset extruder calibration • Automatic Mesh Mapping
Electronics	Single Board Computer: Toradex ARM Compute Module Motion Board: BCN3D Electronics with integrated stepper drivers 32 bit ATSAME51A
Firmware	BCN3D Embedded Linux distribution BCN3D Omega - Marlin 2.1.x
Heated bed	Silicone thermal pad Up to 120ºC (248 ºF) Flexible Printing Surface
Screen	7" IPS full color capacitive touchscreen
Supported languages	English
Supported ffiles	Supported by the printed: .gcode Supported by Stratos: .3MF, .STL, .OBJ
Operating sound	65 dB (maximum)
Tip/Nozzle diameter	Omega Hotend Tip 0.4 HR (0.4mm tip size) (Included) Omega Hotend Tip 0.6 HR (0.6mm tip size) (Sold separately)
Connectivity	Offline printing: USB Online printing: WiFi (Dual Band 2.4/5 GHz 2x2 Wi-Fi 5 (802.11ac)) or Ethernet (through BCN3D Cloud)
Materials Operation System (MOS)	70 ºC (158 ºF) max temperature Average relative humidity <10%
Camera	Yes (visualization via screen)

Materials

Filament diameter	1.75 ± 0.05 mm
Compatible materials	BCN3D Filaments (for Omega) Open Filament Network (for Omega) Custom Materials (with free license activation)[1]
Open ffilament system	Yes (with free license activation)

Physical properties

Overall dimensions (W x D x H)	987 x 600 x 1927 mm (38.86 x 23.62 x 75.87 in)

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Weight	240 kg (530 lbs)
Shipping box dimensions (W x D x H)	1180 x 725 x 2100 mm (46.5 x 28.54 x 82.7 in)
Shipping weight	260 kg (573.2 lbs)
Minimum working area	For printer operation: A minimum clearance of 20 cm (8”) is required on all sides of the printer, and except for the front, where a clearance of 80 cm (32”) is necessary to operate the printer. For technical service: A minimum clearance of 80 cm (32 in) is required on all sides of the printer for accessing the front, right, and rear panels, except for the left side, where a 20 cm (8 in) clearance is sufficient.
Air/ventilation requirements	No additional requirements
Shipping method	Custom pallet 1180 (W) x 720 (D) mm (46.46 (W) x 28.35 (D) in)

Printing properties

Recommended proffiles	Built-in print profiles in slicer software
Accuracy[2]	XY part accuracy: +/- .200 mm (.008 in), or +/- .002 mm/mm (.002 in/in), whichever is greater. Z part accuracy = +/- 0.200 mm (+/- 0.008 in.) or +/- 0.002 mm/mm (+/- 0.002 in./in.), +/- 1 layer height.
Layer Height	50 µm minimum, 300 µm maximum
Operating Environment	Temperature: 18 - 30 ºC (64.4 - 86 ºF), Humidity: 30 - 70% RH
Extruder maximum temperature	300 ºC (572 ºF)
Heated bed maximum temperature	120 ºC (248 ºF)
Build chamber maximum temperature	70 ºC (158 ºF)

Electric Properties

Input	AC 200-240V, AC 10,25-8,5A, 50-60Hz NEMA 6-20
AC Power Socket	USA: NEMA 6-20, EU: Schuko, UK: BS1363, Australia: AS3112
Maximum power consumption	2050W
UPS Topology	Online 1kVA Battery specifications: 3 batteries, each 36VDCx7Ah

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Software

File preparation software	BCN3D Stratos for slicing and BCN3D Cloud for printer management
Operating Systems	Windows 10 or higher, 64-bit, Mac OSX 11 Big Sur or higher, 64-bit, Linux, 64-bit
Connectivity	Online printing: WiFi or Ethernet (through BCN3D Cloud) Offline printing: USB
Supported browsers BCN3D Cloud	Google Chrome, Mozilla Firefox, Safari

[1] The Omega I60 is an open material platform that offers customers the flexibility to use custom materials and create their own printing profiles at no extra cost. An Omega Open Filament License (OOFL) is required for this purpose. For more information: https://3d.bcn3d.com/bcn3d-omega-i60-omega-open-filament-license

[2] Test conditions: 0.4mm hotend tip , 0.15 layer height , Material: Omega Proto. The accuracy is dependent on geometry and the achievable accuracy specification is derived from statistical data at 95% dimensional yield.

All specifications are approximate and subject to change without notice.
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