Technical Data HT500

Hardware revision v1.4.x

General / Dimensions / Weights

Housing	aluminum-profile framework acrylic glass integrated LED lighting
Positioning system	extruder head mounted on belt driven H-frame (X/Y-axis) screw driven print table (Z-axis) semi-automatic three-point print bed leveling
3D printing technology	Fused Filament Fabrication (FFF)
Length	800mm
Width	600mm
Height	800mm
Weight	49kg (empty)
Connection cable	1.000mm w. Schuko plug and IEC connector
Network	Ethernet 10/100, RJ45

Temperatures

Extrusion temperature	max. +500°C
Print bed temperature	max. +130°C
Print chamber temperature	max. +70°C

Hot ends

	Bore diameter [mm]	Recommended layer height First layer / following
Screwable M6 brass nozzles A/F8 (included in delivery)	2×0.25	0.25 / 0.10 - 0.20
	2×0.35[1]	0.35 / 0.10 - 0.28
	1×0.50[2]	0.50 / 0.20 - 0.40
	1×0.75	0.60 / 0.25 - 0.60

[1] Installed on the left hot end at delivery and preset in the Slic3r profiles available at the GitHub repository for single and dual extruder prints.
[2] Installed on the right hot end at delivery and preset in the Slic3r profiles available at the GitHub repository for support material in dual extruder prints.

Print

Print volume	200x185x280mm (10.4 liter)
Extruder head	dual extruder with two separate extruder nozzles for multi-colored and/or multi-material printing
Print bed	exchangeable 210x210mm PEI/glass fabric/carbon composite sheet
Minimum layer resolution	0.1mm
Positioning accuracy	±0.1mm

Approx. Tolerance	±0.2mm

Material

Printable materials	ABS, PLA, HIPS, PVA, PC, PA12, PET
Filament diameter	2.85±0.1mm
Available filament qty.	0.75kg spool (200x55mm) 2.30kg spool (296x100mm)

Power and Electronics

Power consumption (total)	approx. 800W
Power supply unit	1050W, 100 ... 240V(AC) input with power plug and main switch 13-6.5A 50/60Hz 12V(DC) connector panel
Drives	3x 1.2A stepper motor (XYZ positioning drives)
	2x 1.2A planetary gear drive stepper motor (extruder drives)
Positioning step-width axes	X=0.028mm Y=0.019mm Z=0.003mm
Hot ends	12V, 40W integrated heating element per hot end
Print bed heating	170W wired silicone heating pad
Chamber heating	4x 170W heating resistor (two per heating element)
Chamber lighting	2x 4W LED array, 6.500K
Stand-alone operating module	integrated capacitive 10” touchscreen controller
Integrated computer	UDOO Quad Single Board Computer (Quad core 1GHz CPU)
Machine control	RADDS v1.5 3D Printer Driver Shield
Load switching	3x High Current Solid State Relais
Fans	3x 119x119x25mm, 12V, 140m³/h axial fan (heat chamber circulation and cooling system)
	1x 80x80x25, 12V, 33m³/h axial fan (air filter)

Sensors

Limit switch H-frame (X/Y) and print table (Z)	magnetic hall endstops
Filament end recognition	mechanic limit switch
Temperature sensors hot ends	800°C thermocouple
Temperature sensors print table, print chamber	300°C thermistors

Closed loop water cooling system

Pump	12V(DC) circulation pump with integrated compensation reservoir
Throughput	approx. 210l/h
Radiator	120mm full copper radiator
Fan	see electronics

Hose diameter	G1/4”
Coolant	Innovatek Protect IP ready-to-use
Coolant qty.	approx. 250ml

Air filter

Air filter	fan duct with exchangeable activated charcoal container
Fan	see electronics
Filling	10g, Ø4mm activated charcoal granules

Ambient conditions

Operating temperature	+18°C ... +27°C
Storage temperature	+5°C ... +35°C
Rel. air humidity	max. 70%
Setup site	no excessive formation of dust (e.g. near woodworks, CNC machining centers)