

Technical Data VP75 AMS

General / Dimensions / Weights

Housing	Sheet metal bent parts White powder-coating Adjustable machine feet
Door	Sheet metal frame with acrylic glass cover Magnetic closure Safety switch (optional)
Additional features	integrated LED lighting
Length	800 mm
Width	800 mm
Height	2,200 mm
Weight	250 kg (empty)
Positioning System	3-axis delta Automatic three-point leveling
Manufacturing Technology	Fused Filament Fabrication (FFF)
Compressed Air	
Connection cable	1 m 230 V AC Schuko plug IEC 60320 16A connector
Network	Ethernet 10/100, RJ45

Temperatures

Extrusion Temperature	max. +500°C
Build Plate Temperature	max. +130°C
Build Chamber Temperature	max. +70°C

Building Capacities

Build Volume	75 liter Height: 400 mm Build plate diameter: 600 mm
Extruder head	Encapsulated high-temperature single nozzle
Build Plate	Exchangeable continuous-use PEI sheet (Ø600 mm) with bajonett catch
Filament diameter	1.75±0.1mm
Minimum layer resolution	0.1mm
Positioning accuracy	±0.1mm
Approx. Tolerance	±0.2mm

Power and Electronics

Power consumption (total)	approx. 1,000 W
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Power supply unit	1050 W, 100 ... 240 V(AC) input with power plug and main switch 16 A 50/60Hz 12V(DC) connector panel
Drives	3x 1.2 A stepper motor (XYZ positioning drives) 2x 1.2A planetary gear drive stepper motor (extruder drives)
Positioning step-width axes	X=0.028 mm Y=0.019 mm Z=0.003 mm
Hot end	12 V, 40 W integrated heating element per hot end
Build plate heating	170 W wired silicone heating pad
Chamber heating	170 W heating resistor (two per heating element)
Chamber lighting	2x 4 W 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
Heating Fan	119x119x25 mm, 12 V, 140 m³/h axial fan 80x80x25, 12 V, 33 m³/h axial fan (air filter)

Sensors

Limit switch axes vertical position	magnetic hall endstops
Filament end recognition	mechanic limit switch
Temperature sensors hot end	800 °C thermocouple
Temperature sensors build plate, build chamber	300 °C thermistors

Air cooling system

Throughput	80 l/h
Radiator	120 mm full copper radiator
Fan	see electronics

Air filter

Air filter	fan duct with exchangeable activated charcoal container
Fan	see electronics
Filling	10 g, Ø4 mm 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)