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	600 mm
Height	800 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

Hot end

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

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 (∅600 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. 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

Air cooling system

Throughput	80 l/h
Radiator	120 mm 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)