Raise3D RMS220 Series Technical Specifications

Raise3D RMS220 Series is a set of powerful selective laser sintering (SLS) production system, optimized for productivity, stability, and easy to use and maintenance. It enables the highspeed printing of engineering plastics and composites. When running at full capacity, the max throughput for parts can reach up to 5kg/day, which allows the users to produce end-use parts efficiently.

Printer	Raise3D RMS220	
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch)	
Machine Size (W × D × H)	Printer	Build Unit 220
	Machine body: 861 × 685 × 1560 mm (33.9 × 27 × 61.4 inch) With tower light: 861 × 685 × 1760 mm (33.9 × 27 × 69.3 inch)	536.5 × 333 × 1005 mm (21.1 × 13.1 × 39.6 inch)
Weight	Printer (Material box & powder not included)	Build Unit 220 (Powder not included)
	Net Weight: 283 kg (623.9 lbs)	Net Weight: 62 kg (136.7 lbs)
Power	Input 190-240VAC, 50/60Hz, 230V@16A	

General		
	Technology	Selective laser sintering (SLS)
	Laser	75 W fiber laser, wavelength 1064 nm
	Galvo	High speed, high precision galvo system, with F-theta length max scanning speed 30000 mm/s
	Material type	Powder
	Printing Speed	2.2 L/h (packing density 20% by weight)
	Max Powder Temp.	220 °C
	Max Platform Temp.	180 °C
	Max Cylinder Temp.	180 °C
	Active Cooling	Yes
	RFID	Yes
	Hopper Size	31.5 L, 40 L if extended with material box
	Powder Level Sensor	Yes
	Layer Height	0.05-0.40 mm We recommend 0.1-0.2 mm layer height for stable printing.
	Connectivity	Wi-Fi, LAN, USB, real-time camera
	Noise	<65 dB(A) when running
	Environment	Operating: temperature 15-30°C, humidity ≤50%RH without condensing Storage: temperature -10°C-60°C, humidity ≤50%RH without condensing
	Air Filter	HEPA + activated carbon filter
	Atmosphere	Air/ Nitrogen (Built in nitrogen generator in RMS220, compressed air required.)

Materials		
	Supported Materials	Raise3D PA12 Black Powder/ Raise3D PA11 Black Powder/ Raise3D PA12 GB Black Powder/ Raise3D TPU90A Black Powder/ Raise3D TPU90A White Powder/ Raise3D TPU86A Black Powder/ Raise3D TPU86A White Powder
	OMP (Open Material Program)	Support selected third-party materials Optional fully open material license available

Software		
	Slicer	ideaMaker
	Input File Formats	STL/ OBJ/ 3MF/ OLTP/ STEP/ STP/ IGES/ IGS
	Operation System	WINDOWS/ macOS/ LINUX
	Export File Format	.slscode

Controls		
	User Interface	11.5" Touchscreen
	Network	Wi-Fi, Ethernet
	Screen Resolution	2560 × 1600
	Motion Controller	GigaDevice Arm Cortex-M4 200MHz FPU
	Logic Controller	Rockchip RK3568 Arm Quad Cortex-A55 2GHz
	Memory	4 GB
	Flash	32 GB
	Operating System	LINUX
	Interfaces	USB 3.0×1, Ethernet×1

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Cleaning Station	Raise3D C220-P	
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch)	
Machine Size (W × D × H)	Machine body	Incl. control panel & tower light
	1238 × 823 × 1740 mm (48.7 × 32.4 × 68.5 inch)	1384 × 823 × 1928 mm (54.5 × 32.4 × 75.9 inch)
Weight	Net Weight (Material box or powder not included)	
	263 kg (579.8 lbs)	
Power	Input	190-240VAC, 50/60Hz, 230V@2.6A (External vacuum not included)
General	Supported Printer	Raise3D RMS220 Series SLS Printer
	Hopper Size	Fresh powder hopper: 20L
		Used powder hopper: 20L
	RFID	Yes
	Connectivity	Wi-Fi, LAN, USB
	Noise	<70 dB(A) when running, external vacuum not included
	Environment	Operating: temperature 15-30°C, humidity≤50%RH without condensing
		Storage: temperature -10°-60°C, humidity≤50%RH without condensing
	Air Filter	HEPA
Materials	Supported Materials	Raise3D PA12 Black Powder/ Raise3D PA11 Black Powder/ Raise3D PA12 GB Black Powder/ Raise3D TPU90A Black Powder/ Raise3D TPU90A White Powder/ Raise3D TPU86A Black Powder/ Raise3D TPU86A White Powder
Controls	User Interface	7" Touchscreen, buttons with backlight
	Connectivity	Wi-Fi, Ethernet
	Screen Resolution	1280 × 800
	Motion Controller	GigaDevice Arm Cortex-M4 200MHz FPU
	Logic Controller	Rockchip RK3568 Arm Quad Cortex-A55 2GHz
	Memory	2 GB
	Flash	16 GB
	Operating System	LINUX
	Interfaces	USB 3.0×1, Ethernet×1

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