Vendor Node

Air cooled wall mounted compute system

Single-GPU configuration for AI inference, rendering and GPU-accelerated workloads. This sheet specifies the 300 W RTX PRO 6000 Blackwell Max-Q edition. Component specifications are manufacturer-rated; enclosure dimensions, system weight and power scenarios are engineering estimates, pending final assembly verification.



96 GB GDDR7 ECC GPU memory

128 GB DDR5 system memory

6 TB NVMe storage specification

Air cooling throughout

Component configuration

Graphics	NVIDIA RTX PRO 6000 Blackwell Max-Q Workstation Edition; 96 GB GDDR7 ECC; active cooling; 300 W board power. [1]
Processor	AMD Ryzen 9 9950X; 16 cores / 32 threads; AM5; 170 W default TDP. [2]
Motherboard	ASUS ProArt X870E-Creator WiFi; ATX; PCIe 5.0 x16 graphics interface; 10GbE and 2.5GbE Ethernet. [3]
Memory	128 GB DDR5 UDIMM, matched 2 × 64 GB kit. Exact kit must be selected from board compatibility list; validated JEDEC settings.
Storage	Samsung 990 PRO 2 TB OS/container SSD + 4 TB workload SSD, PCIe 4.0 NVMe M.2, without separate heatsinks. [6]
Power and cooling	Corsair RM1000x ATX 3.1, 1,000 W; Noctua NH-U12A air cooler; 4 × ARCTIC P14 PWM PST 140 mm fans. [4,5,7]

Dimensions and weight

Mechanical envelope and itemized mass budget

Cabinet envelope: 800 W × 400 H × 220 D mm (31.5 × 15.7 × 8.7 in), excluding wall rail and cable clearance. These dimensions are a specified design envelope, not dimensions measured from the supplied illustration. Construction basis: 2.0 mm 5052 aluminum sheet, dark finish, removable front cover and Vendor branding.

Assembly or component	Weight and basis
Cabinet assembly	7.0 kg estimated; shell, internal tray, stiffeners, finish and hardware. Calculation below.
GPU	1.23 kg manufacturer product weight. [1]
Motherboard	1.579 kg net listed by system integrator Puget Systems; secondary source, not ASUS-certified. [9]
CPU and RAM	0.04 kg CPU + 0.08 kg memory allowance; exact net weights not verified.
SSD pair	0.018 kg combined maximum, 9 g per drive without heatsink. [6]
CPU cooler	1.220 kg including its two fans. [4]
Power supply	3.12 kg published product weight used as a conservative allocation; cable/accessory scope is unspecified. Retail box weight is 3.887 kg, excluded. [7]
Enclosure fans	0.776 kg: 4 × 194 g, separate from CPU fans. [5]
Riser and wiring	0.55 kg allowance for riser/support, internal wiring and accessories; assumes PSU cable mass is covered by the PSU allocation; verify at assembly.
Node assembly total	Approximately 15.6 kg / 34 lb calculated; allow 14-18 kg until final parts and cabinet are weighed.
Wall mounting rail	1.0 kg separate allowance; total installed assembly about 16.6 kg / 37 lb. Not a rated bracket capacity.

Cabinet calculation: closed-box surface area = $2(0.8\times0.4 + 0.8\times0.22 + 0.4\times0.22) = 1.168$ m². At 2 mm and 2,680 kg/m³ density [8], gross shell mass = 6.26 kg. Allow -0.40 kg for cutouts and +1.14 kg for flanges, tray, stiffeners, finish and fasteners = 7.00 kg. Cutout and added-part allowances are not CAD-derived. Packaging is excluded.

Power and installation

Complete system energy scenarios

Outlet-power figures below include the GPU, CPU, board, memory, drives, fans and PSU losses. They are estimates rather than measured operating ratings. Household cooling electricity is additional.

Idle or low activity	80-130 W assumed average; approximately 58-94 kWh per 30-day month at continuous operation.
AI workload scenario	400-550 W assumed average; 9.6-13.2 kWh/day; 288-396 kWh per 30-day month. Workload and utilization change consumption.
Electrical allowance	700 W sustained AC planning allowance, not a tested maximum: 504 kWh per 30-day month if continuously sustained.
Allowance calculation	300 W GPU + 230 W CPU package allowance + 70 W remaining components = 600 W DC. At 90% assumed PSU efficiency, 667 W AC, rounded to 700 W.
Input current	At 120 V and 0.95 power factor: about 3.5-4.8 A for 400-550 W; about 6.2 A at 700 W. Check actual circuit loads.
GPU versus PSU	300 W is GPU board power, not complete-node power. 1,000 W is PSU output capacity, not expected consumption.

Installation requirements

Indoor, dry, climate-controlled location with unobstructed ventilation. Wall bracket must be engineered for the measured assembled weight and anchored into suitable structure; drywall-only attachment is not sufficient. Keep service access and intake/exhaust clearance.

Use grounded 120 V / 60 Hz power, rated cord and properly seated manufacturer-approved GPU power cable. Circuit suitability depends on sustained loading and other appliances. Do not conceal flexible mains cords within walls.

Wired Ethernet; Vendor connection requirement is 1 Gbps upload and download. Compute-provider acceptance, public-IP and port requirements must be checked separately. Ubuntu Server with compatible NVIDIA drivers and container runtime.

No water cooling. NH-U12A height is 158 mm; verify full enclosure stack-up and GPU cable bends. AMD recommends liquid cooling for optimal stock performance on the 9950X, so air-cooled CPU power limits and sustained temperatures require validation.