TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Mini-Tower UP Workstation Server AS-C531I-11172U

Fully assembled Mid-Tower AI enabled personal computer

SKU AS-C531I-11172U | Tower | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
Tower	306 W	1,044 BTU/h	On request

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

REQUEST A QUOTATION ONLINE

serverinvest.com/product/as-c531i-11172u

01 Product overview

The Supermicro AS-C531i-11172U is a Mini-Tower UP Workstation Server built on Single processor(s) AMD Ryzen 7 8700G.

Fully assembled Mid-Tower AI enabled personal computer.

The chassis accepts up to 1 GPU accelerators for AI, rendering and HPC workloads.

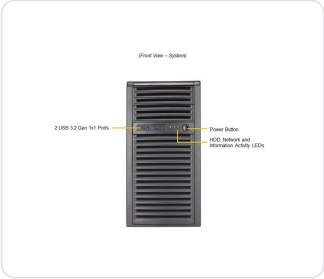
ServerInvest configures every AS -C531i-11172U to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

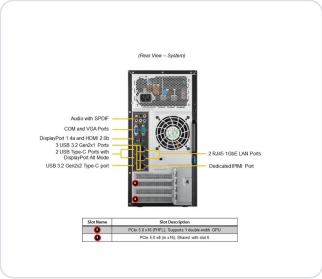
KEY SPECIFICATIONS

Form factor	**Tower**
Processor	**Single processor(s) AMD Ryzen 7 8700G**
Memory	**4 DIMM slots**
Drive bays	**8**
GPU	**Up to 1 GPUs**
Power supply	**1× 668 W**
Typical power draw	**900 W**
Networking	**1 RJ45 1GbE with Realtek RTL8211F PHY (dedicated IPMI)**

HIGHLIGHTS

- Single processor(s) AMD Ryzen 7 8700G
- Total 4 bays 4 front hot-swap 3.5" SATA drive bays
- Up to 1 GPUs
- Power: 1x 668W
- Networking: 1 RJ45 1GbE with Realtek RTL8211F PHY (dedicated IPMI)





02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
73 W	**190 W**	**306 W**	**1,044 BTU/h**	**0.3 kW**	**46%**

Typical 190 W · max 306 W · single PSU rating 668 W

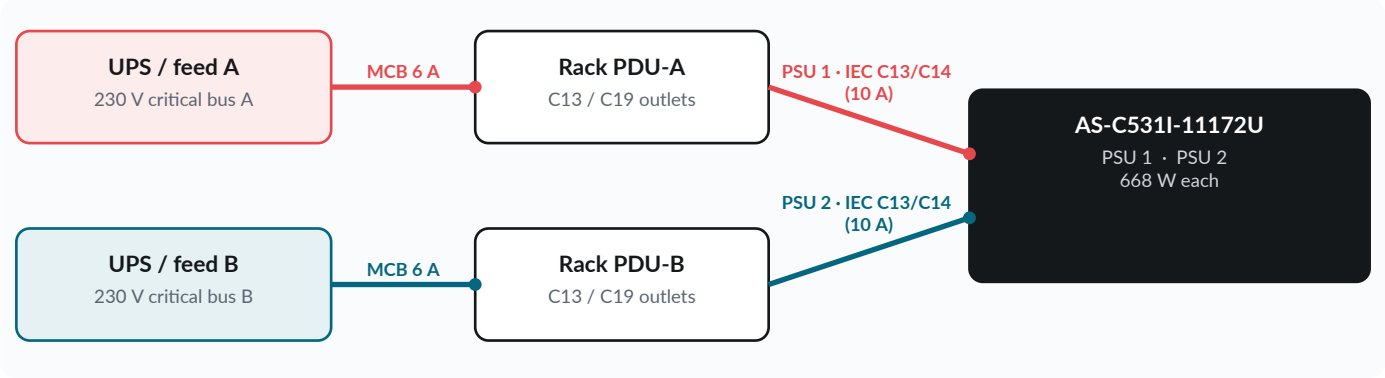
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 668 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	**85 W**
CPU (base configuration)	25 W	110 W	**185 W**
2× Memory (base configuration)	6 W	10 W	**18 W**

DC loads converted to wall power at 94% PSU efficiency; typical load assumed 70% of the time. Engineering estimates — confirm with the manufacturer's power calculator for critical designs.

03 Power connection diagram

Dual-feed (A/B) connection for redundant power supplies



- Connect PSU 1 to PDU-A and PSU 2 to PDU-B (independent feeds) using IEC C13/C14 (10 A) power cords.
- Maximum current per feed: 1.4 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 6 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 306 W = 1,044 BTU/h (0.3 kW).

04 Full specifications

MOTHERBOARD	
	Super H13SAE-MF

PROCESSOR	
CPU	Single processor(s) AMD Ryzen 7 8700G
Core Count	8C/16T; 16MB Cache
Note	Supports up to 65W TDP CPUs (Air Cooled)

GPU	
Max GPU Count	Up to 1 triple-width or 1 double-width GPU

SYSTEM MEMORY	
Memory	Slot Count: 4 DIMM slots Max Memory (1DPC): 192GB 5200MT/s non-ECC DDR5 UDIMM
Memory Voltage	1.1V

ON-BOARD DEVICES	
SATA	SATA (6Gbps)
Network Connectivity	1 RJ45 1GbE with Realtek RTL8211F PHY (dedicated IPMI) 2 RJ45 1GbE with Intel I210-AT

INPUT / OUTPUT	
Video	1 VGA port 1 HDMI 2.0b port(s) 1 DisplayPort 1.4a port

Audio	Rear Audio

SYSTEM BIOS

BIOS Type	AMI 32MB SPI Flash

SECURITY

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown

PC HEALTH MONITORING

Voltage	+1.0V PCH, +1.8V PCH, +12V, +3.3V, +5V, +5V standby, 1.05 (PCH), 3.3V standby, 5 (4-pin), CPU, CPU temperature, CPU thermal trip support, PCH temperature, System temperature, VBAT, VRM temperature

CHASSIS

Form Factor	Mini-Tower
Model	CSE-731i-668B

DIMENSIONS AND WEIGHT

Height	14.25" (362 mm)
Width	7.25" (184 mm)
Depth	16.75" (425 mm)
Package	20" (H) x 11" (W) x 21" (D)
Weight	Gross Weight: 30 lbs (13.61 kg) Net Weight: 28 lbs (12.7 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off button
LED	HDD activity LED Network activity LEDs Power LED System Overheat LED
Port	USB 3.0 Port(s)

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 1 PCIe 5.0 x16 FHFL slot Option A 1 PCIe 5.0 x16 FHFL slot
M.2	2 M.2 PCIe 4.0 x1 NVMe slots (M-key 2280(default))

DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 4 bays 4 front hot-swap 3.5" SATA drive bays Option A: Total 4 bays 4 front hot-swap 2.5" SATA drive bays
M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280/22110)
Peripheral Bays	2 5.25" peripheral bays

SYSTEM COOLING

Fans	Up to 1 Fan(s) Up to 1x 12mm Fan(s) (optional)

POWER SUPPLY

1x 668W
1x 668W Platinum Level (92%) power supply
Dimension (WxHxL)
150 x 86 x 185 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (Non-Condensing) Non-operating Relative Humidity: 5% to 95% (Non-Condensing)

05 Built, tested & supported by ServerInvest

Engineered configuration
Every option validated for socket, memory channels, PCIe lanes, power and cooling.

48-hour burn-in
Assembled, firmware-updated and stress-tested before it leaves our workshop.

3-year warranty
Standard on every system, with on-site next-business-day upgrades available.

Rack-ready delivery
Rails, cable management and labelling included — delivered across Europe.

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Interested in this solution?

Request a quotation online or talk to a solutions engineer — we reply within one business day.
office@serverinvest.com

Official manufacturer datasheet: serverinvest.com/product/as-c531i-11172u/datasheet/manufacturer