

TECHNICAL DATASHEET

SUPERMICRO · STORAGE SERVERS

Supermicro 2U Storage Server SSG-229J-5BU24JBF

2U front-loading all-flash Modular Bluefield-3 based SDS Storage enclosure with 24 hot-swap 2.5" NVMe bays and PCIe 5.0 with GPU/DPU support for LLM applications

SKU SSG-229J-5BU24JBF

2U

Supermicro



FORM FACTOR

2U

MAX POWER (BASE)

333 W

HEAT OUTPUT

1,136 BTU/h

PRICE

On request

REQUEST A QUOTATION ONLINE

serverinvest.com/product/ssg-229j-5bu24jbf

01 Product overview

The Supermicro SSG-229J-5BU24JBF is a 2U Storage Server built on a server-class processor.

2U front-loading all-flash Modular Bluefield-3 based SDS Storage enclosure with 24 hot-swap 2.5" NVMe bays and PCIe 5.0 with GPU/ DPU support for LLM applications.

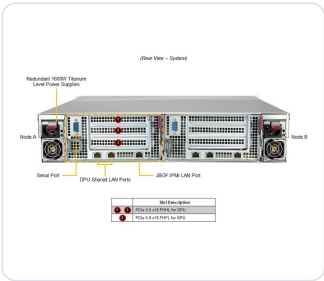
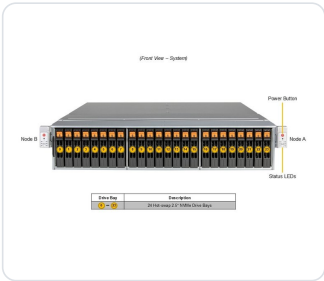
ServerInvest configures every SSG-229J-5BU24JBF to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

KEY SPECIFICATIONS

Form factor	2U
Drive bays	24 (24 NVMe)
Power supply	2× 1600 W
Typical power draw	450 W
Networking	2 QSFP+ 200GbE with NVIDIA BlueField-3
Dimensions (W×H×D)	437 × 89 mm

HIGHLIGHTS

- Total 24 bays 24 front hot-swap 2.5" NVMe drive bays
- Power: 2x 1600W
- Networking: 2 QSFP+ 200GbE with NVIDIA BlueField-3



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
86 W	210 W	333 W	1,136 BTU/h	0.3 kW	21%

Typical 210 W · max 333 W · single PSU rating 1600 W

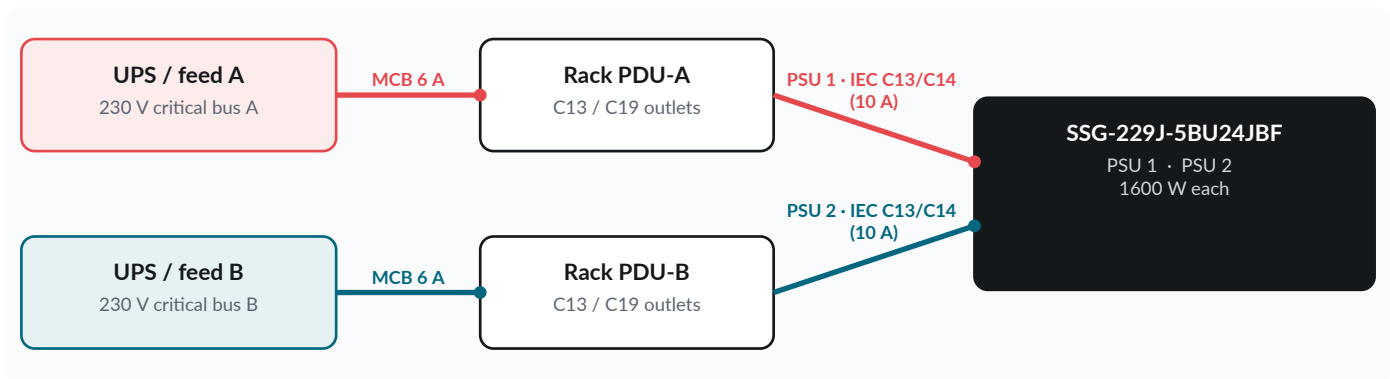
Annual IT energy (24/7)	1,514 kWh
Annual facility energy (PUE 1.5)	2,271 kWh
Annual energy cost	€303 IT · €454 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.59 t (grid factor 0.26 kg/kWh)
Power supplies	2× 1600 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	110 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: 1.5 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: 333 W = 1,136 BTU/h (0.3 kW).

04 Full specifications

PCIE SWITCH CONTROL BOARD

Super BPN-NVME5-229PL-J

ON-BOARD DEVICES (PER NODE)

Network Connectivity 2 QSFP+ 200GbE with NVIDIA BlueField-3
 1 RJ45 1GbE with Realtek
[View AOC Options](#)

MANAGEMENT

Software SuperCloud Composer (SCC)
 Supermicro Server Manager (SSM)
 Supermicro Update Manager (SUM)
 Supermicro SuperDoctor 5 (SD5)
 Super Diagnostics Offline (SDO)
 Supermicro Thin-Agent Service (TAS)
 SuperServer Automation Assistant (SAA) New!

CHASSIS

Form Factor 2U Rackmount
 Model CSE-229TS-R000RCNDP

DIMENSIONS AND WEIGHT

Height 3.47" (88 mm)
 Width 17.7" (449.4 mm)
 Depth 30" (762 mm)
 Package 9.64" (H) x 26.37" (W) x 43.3" (D)

Weight	Gross Weight: 94.8 lbs (43 kg) Net Weight: 71.88 lbs (32.6 kg)
Available Color	Silver

EXPANSION SLOTS (PER NODE)

PCI-Express (PCIe) Configuration	Default 3 PCIe 5.0 x16 FHFL slots View AOC Options
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DRIVE BAYS / STORAGE (PER NODE)

Drive Bays Configuration	Default: Total 24 bays 24 front hot-swap 2.5" NVMe drive bays View NVMe Options
M.2	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280/22110)

SYSTEM COOLING

Fans	Up to 6 Heavy Duty 60mm Fan(s)
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POWER SUPPLY

2x 1600W
2x 1600W Redundant Titanium Level (96%) power supplies
Dimension (WxHxL)
73.5 x 40 x 265 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.



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/ssg-229j-5bu24jbf/datasheet/manufacture

