

TECHNICAL DATASHEET

SUPERMICRO • MULTI-NODE & TWIN

Supermicro 4U FatTwin Server AS-F2014S-RNTR

4U 4-node FatTwin with 8 3.5" SATA (optional NVMe) per node

SKU AS-F2014S-RNTR

4U

Supermicro



FORM FACTOR

4U

MAX POWER (BASE)

386 W

HEAT OUTPUT

1,317 BTU/h

PRICE

On request

REQUEST A QUOTATION ONLINE
serverinvest.com/product/as-f2014s-rntr



01 Product overview

The Supermicro AS-F2014S-RNTR is a 4U FatTwin Server built on Single Socket SP3 AMD EPYC 7002/7003 Series Processors with up to 2 TB of memory in 8 DIMM slots.

4U 4-node FatTwin with 8 3.5" SATA (optional NVMe) per node.

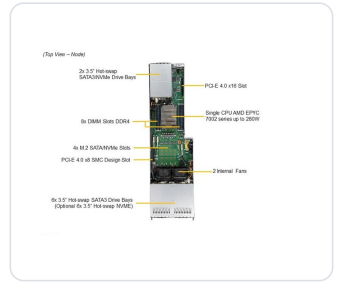
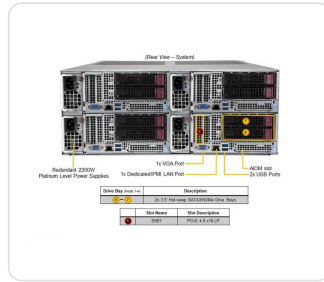
ServerInvest configures every AS-F2014S-RNTR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Single Socket SP3 AMD EPYC 7002/7003 Series Processors
- Up to 2 TB memory · 8 DIMM slots
- Total 8 bays 2 rear hot-swap 3.5"/2.5" NVMe/SATA drive bays
- Power: 4x 2200W
- Networking: Ethernet

KEY SPECIFICATIONS

Form factor	4U
Processor	Single Socket SP3 AMD EPYC 7002/7003 Series Processors
Memory	8 DIMM slots, up to 2 TB
Drive bays	24 (24 NVMe)
Power supply	4x 2200 W
Typical power draw	450 W
Networking	Ethernet
Dimensions (W×H×D)	437 × 178 mm



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
110 W	247 W	386 W	1,317 BTU/h	0.4 kW	18%

Typical 247 W · max 386 W · single PSU rating 2200 W

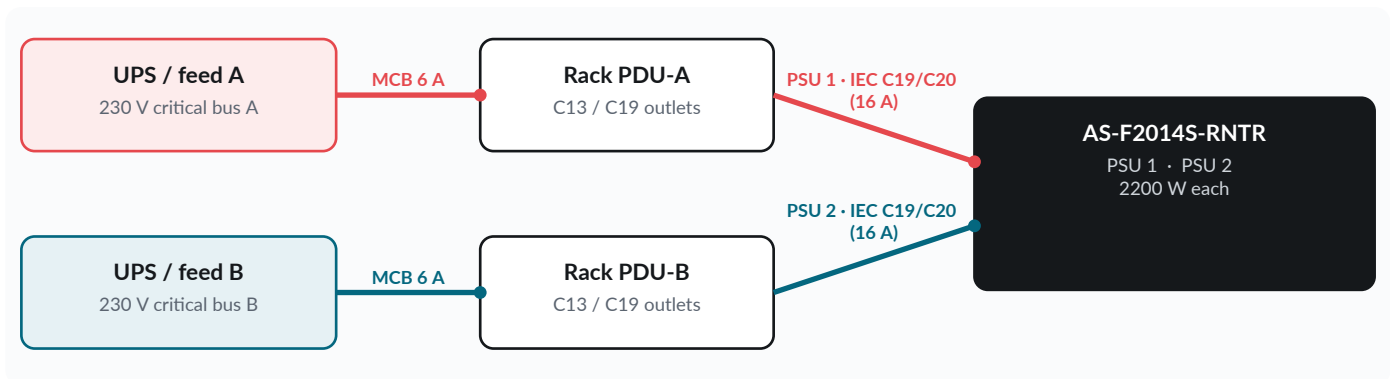
Annual IT energy (24/7)	1,804 kWh
Annual facility energy (PUE 1.5)	2,706 kWh
Annual energy cost	€361 IT · €541 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.70 t (grid factor 0.26 kg/kWh)
Power supplies	4x 2200 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	72 W	112 W	160 W
CPU (base configuration)	25 W	110 W	185 W
2x 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 C19/C20 (16 A) power cords.
- Maximum current per feed: 1.8 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: 386 W = 1,317 BTU/h (0.4 kW).

04 Full specifications

MOTHERBOARD

Super H12SSFR-AN6

PROCESSOR (PER NODE)

CPU	Single Socket SP3 AMD EPYC 7002/7003 Series Processors
Note	Supports up to 280W TDP CPUs (Air Cooled)

SYSTEM MEMORY (PER NODE)

Memory	Slot Count: 8 DIMM slots Max Memory (1DPC): Up to 2TB 3200MT/s ECC DDR4 RDIMM/LRDIMM View Memory Options
Memory Voltage	1.2V

ON-BOARD DEVICES (PER NODE)

Network Connectivity	Ethernet View AIOM Options View AOC Options
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

INPUT / OUTPUT (PER NODE)

LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	2 USB 3.0 ports (rear)
Video	1 VGA port
TPM	1 TPM header

SYSTEM BIOS

BIOS Type	AMI 256MB SPI Flash EEPROM
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MANAGEMENT

Software	Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) Supermicro SuperDoctor 5 (SD5) KVM with dedicated LAN IPMI 2.0 Watch Dog
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Power configurations	ACPI Power Management
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SECURITY

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
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Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery System Lockdown
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PC HEALTH MONITORING

CPU	Monitors for CPU Cores
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Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control
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Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors
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CERTIFICATIONS

Operating Systems	Milan: Oracle Linux 8.3, RHEL 8.3, Windows Server 2019, Windows Server 2022 Rome: SLES 15 SP2 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	4U Rackmount
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Model	CSE-F418BC3-R2K20B
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DIMENSIONS AND WEIGHT

Height	6.96" (177 mm)
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Width	17.63" (448 mm)
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Depth	29" (737 mm)
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Package	15" (H) x 28.3" (W) x 42.4" (D)
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Weight	Gross Weight: 200 lbs (90.71 kg) Net Weight: 150 lbs (68.04 kg)
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Available Color	Silver
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EXPANSION SLOTS (PER NODE)

PCI-Express (PCIe) Configuration	Default 1 PCIe 4.0 x16 LP slot 1 PCIe 4.0 x8 INTERNAL slot View AOC Options
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DRIVE BAYS / STORAGE (PER NODE)

Drive Bays Configuration	Default: Total 8 bays 2 rear hot-swap 3.5"/2.5" NVMe/SATA drive bays 6 front hot-swap 3.5" SATA drive bays Option A: Total 8 bays 6 front hot-swap 3.5"/2.5" NVMe* drive bays 2 rear hot-swap 2.5" NVMe/SATA drive bays (*NVMe support may require additional storage controller and/or cables, please see the optional parts list for details) View NVMe Options View Drive Options
M.2	4 M.2 PCIe 4.0 x4 SATA slots (M-key 2242/2260/2280/22110) View M.2 Options

SYSTEM COOLING

Fans	Up to 2x 13.5K RPM middle 8cm Fan(s)
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POWER SUPPLY

4x 2200W
4x 2200W Redundant (2 + 2) Titanium Level (96%) power supplies
Dimension (WxHxL)
76 x 40 x 336 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/as-f2014s-rntr/datasheet/manufacturerr

