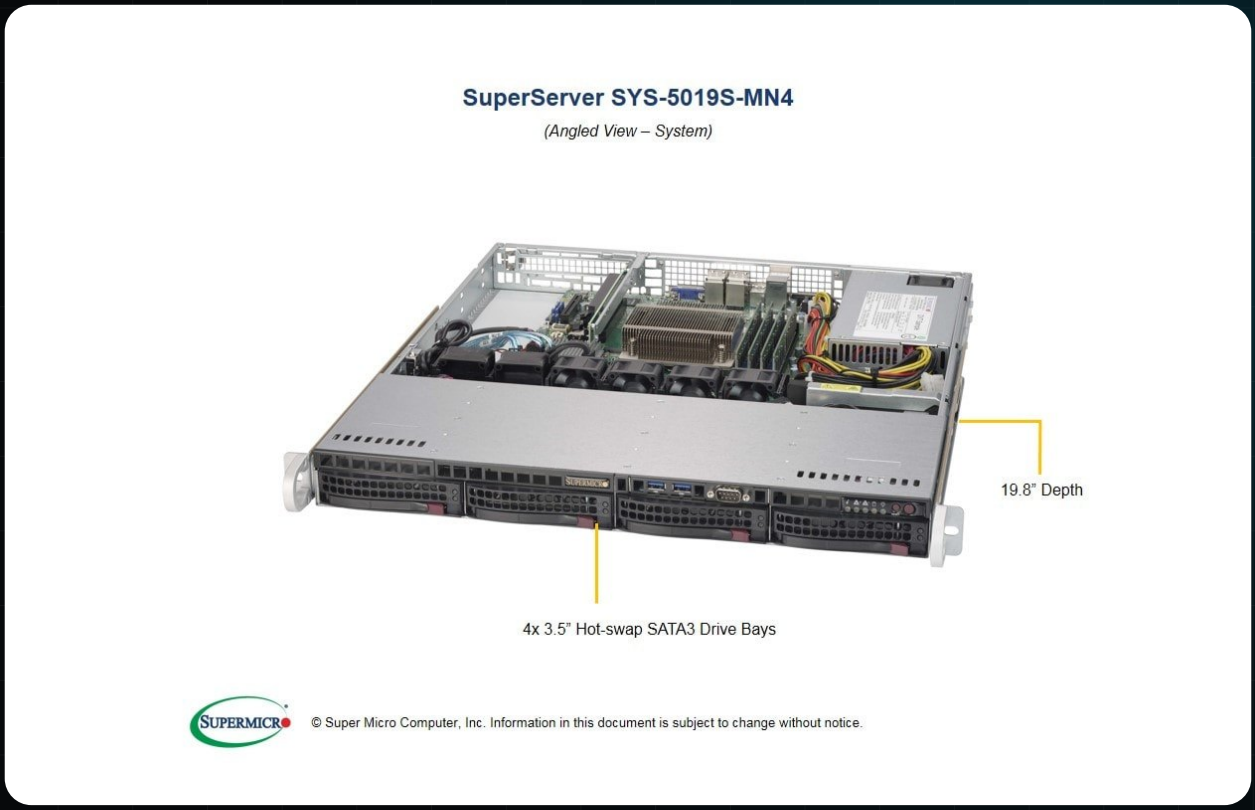
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-5019S-MN4

SKU SYS-5019S-MN4 | 1U | Supermicro



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

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-5019s-mn4

01 Product overview

The Supermicro SYS-5019S-MN4 is a server built on Intel Core with up to 64 GB of memory in 4 DIMM slots.

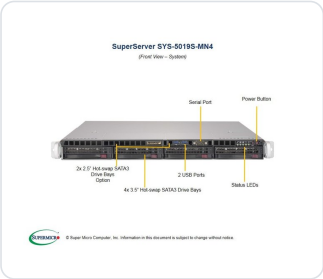
ServerInvest configures every SYS-5019S-MN4 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

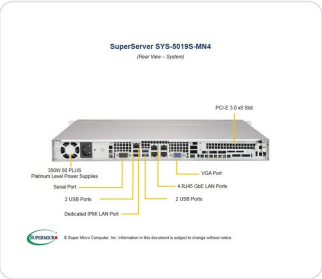
HIGHLIGHTS

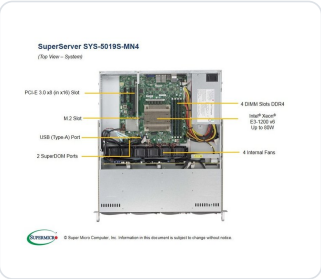
- Intel Core
- Up to 64 GB memory · 4 DIMM slots
- 4 Hot-swap 3.5" SATA3 drive bays
- Power: 100-240 V, 50-60 Hz, 5.0-2.5 Amp
- Networking: Quad Intel I210-AT Gigabit Ethernet LAN ports

KEY SPECIFICATIONS

Form factor	**1U**
Processor	**Intel Core**
Memory	**4 DIMM slots, up to 64 GB**
Drive bays	**4**
Typical power draw	**450 W**
Networking	**Quad Intel I210-AT Gigabit Ethernet LAN ports**
Dimensions (W×H×D)	**437 × 44 mm**







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**	**—**

Typical 190 W · max 306 W

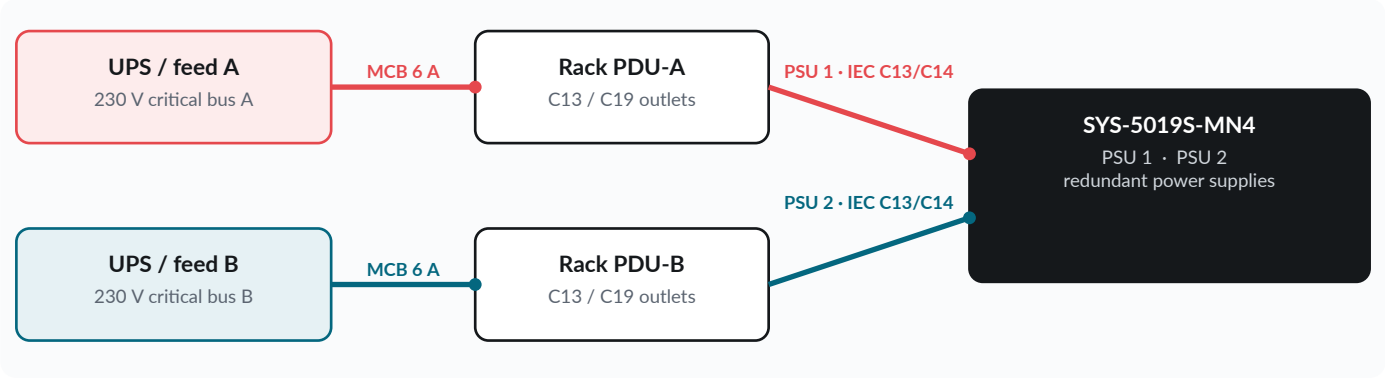
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

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 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

PROCESSOR	
CPU	Single Socket H4 (LGA 1151) supports: Intel Xeon processor E3-1200 v6/v5, Intel 7th/6th Gen Core i3 CPU TDP up to 80W
Note	BIOS version 2.0 or above is required to support Intel Xeon Processor E3-1200 v6 series or 7th Generation Intel Core Processors

SYSTEM MEMORY	
Memory Capacity	4x 288-pin DDR4 DIMM slots Up to 64GB DDR4 ECC UDIMM
Memory Type	2400/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit, 288-pin (UDIMM) gold-plated DIMMs
DIMM Sizes	16GB, 8GB, 4GB
Memory Voltage	1.2 V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory)

ON-BOARD DEVICES	
Chipset	Intel C236 chipset
SATA	SATA3 (6Gbps) via C236 controller RAID 0, 1, 5, 10 support
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC

Network Controllers	Quad Intel I210-AT Gigabit Ethernet LAN ports Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Video	ASPEED AST2400 BMC

INPUT / OUTPUT

SATA	8 SATA3 (6Gbps) ports
LAN	4 RJ45 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear + 2 headers + 1 Type A) 6 USB 2.0 ports (2 rear + 4 headers)
Video	1 VGA port
Serial Port / Header	2 COM ports (1 rear, 1 front)
SuperDOM	2 SuperDOM (Disk on Module) ports with built-in power

PC HEALTH MONITORING

Voltage	Monitors for CPU Cores, +3.3V, +5V, +12V, +5V Standby, VBAT, HT, Memory, Chipset Voltages.
FAN	Total of 5 fan headers supporting up to 5 fans 4 fans with tachometer status monitoring Status monitor for speed control Status monitor for on/off control Low noise fan speed control Pulse Width Modulated (PWM) fan connectors
Temperature	Monitoring for CPU and chassis environment CPU thermal trip support I 2 C temperature sensing logic Thermal Monitor 2 (TM2) support PECI
LED	System Information LED Suspend static indicator LED UID/Remote UID
Other Features	Chassis intrusion detection Chassis intrusion header RoHS, Halogen Free

CHASSIS

Form Factor	1U Rackmount
Model	CSE-813MFTQC-350CB

DIMENSIONS AND WEIGHT

Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	19.85" (503mm)
Package	8.5" (H) x 24" (W) x 29.5" (D)
Weight	Gross Weight: 30.4 lbs (13.8 kg) Net Weight: 17.6 lbs (8 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
LEDs	Power LED Hard drive activity LED 2 Network activity LEDs System Information LED

EXPANSION SLOTS

PCI-Express	1 PCI-E 3.0 x8 (in x16) AOC slot
M.2	1x M.2 Interface: PCI-E 3.0 x2 Form Factor: 2280 Key: M-Key Double Height Connector

DRIVE BAYS

Hot-swap	4 Hot-swap 3.5" SATA3 drive bays

PERIPHERAL DRIVES

Optional	2 Fixed 2.5" internal drives

SYSTEM COOLING

Fans	4x 40x28mm 4-pin PWM Cooling Fans Optional 1x 40x28mm PWM fan

POWER SUPPLY

AC Voltage	100-240 V, 50-60 Hz, 5.0-2.5 Amp
+5V	Max.: 15 Amp Min.: 0.2 Amp
+5V standby	Max.: 3 Amp Min.: 0 Amp
+12V	Max.: 29 Amp Min.: 0.5 Amp
-12V	Max.: 0.2 Amp Min.: 0 Amp
+3.3V	Max.: 12 Amp Min.: 0.2 Amp
Certification	Platinum Level Certified [Test Report]

SYSTEM BIOS

BIOS Type	8MB SPI Flash EEPROM with AMI BIOS

OPERATING ENVIRONMENT / COMPLIANCE

RoHS	RoHS Compliant

Environmental Spec.	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°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