

TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Server SYS-5038A-I

SKU SYS-5038A-I

Tower

Supermicro

SuperWorkstation SYS-5038A-i

(Angled View – System)



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FORM FACTOR

Tower

MAX POWER (BASE)

306 W

HEAT OUTPUT

1,044 BTU/h

PRICE

On request



REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-5038a-i



01 Product overview

The Supermicro SYS-5038A-I is a server built on Intel Core with up to 1 TB of memory in 4 DIMM slots.

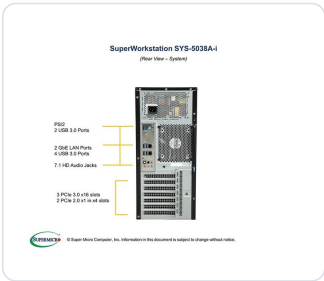
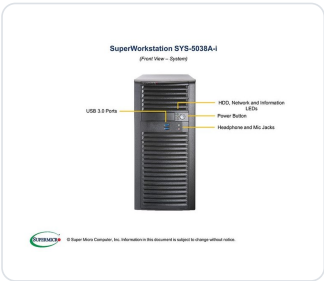
ServerInvest configures every SYS-5038A-I to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Core
- Up to 1 TB memory · 4 DIMM slots
- 4x 3.5" fixed drive bays
- Power: 100-240 V, 50-60 Hz, 10-6 Amp
- Networking: Intel i210-AT Dual Port Gigabit Ethernet

KEY SPECIFICATIONS

Form factor	Tower
Processor	Intel Core
Memory	4 DIMM slots, up to 1 TB
Drive bays	4
Typical power draw	450 W
Networking	Intel i210-AT Dual Port Gigabit Ethernet



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

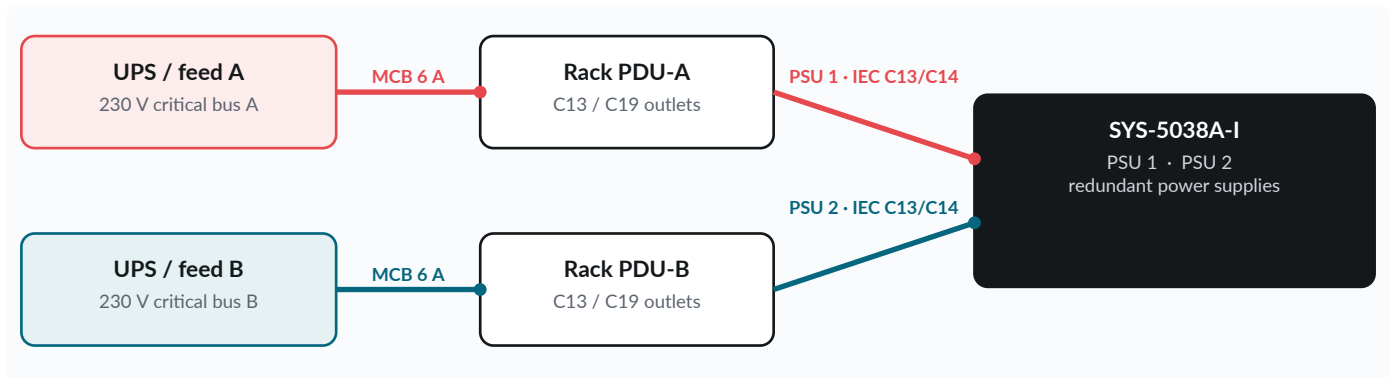
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

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	Intel Xeon processor E5-2600 v4 † / v3, E5-1600 v4 † / v3 family or Intel Core i7 series (up to 160W TDP **) Single Socket R3 (LGA 2011)
Core / Cache	Up to 22 Cores † / Up to 55MB † Cache
Note	† BIOS version 2.0 or above is required
Note	** Motherboard supports this maximum TDP. Please verify your system can thermally support

SYSTEM MEMORY

Memory Capacity	8x 288-pin DDR4 DIMM slots Up to 1TB ECC 3DS LRDIMM Up to 512GB ECC LRDIMM Up to 256GB ECC RDIMM Up to 128GB DDR4 ECC/non-ECC UDIMM (available with Core i7 only)
Memory Type	2400 † / 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit, 288-pin (RDIMM / LRDIMM) / 284-pin gold-plated DIMMs
DIMM Sizes	3DS LRDIMM: 128GB LRDIMM: 64GB, 32GB RDIMM: 32GB, 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 C612 chipset
SATA	SATA3 (6Gbps) via C612 controller RAID 0, 1, 5, 10 support
Network Controllers	Intel i210-AT Dual Port Gigabit Ethernet Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Audio	RealTek ALC1150 High Definition Audio

INPUT / OUTPUT

SATA	10x SATA3 (6Gbps) ports via PCH
LAN	2x RJ45 Gigabit Ethernet LAN ports
USB	8x USB 3.0 ports (2 front + 6 rear)
Audio	7.1 HD Jacks
Keyboard/Mouse	1x PS/2 Keyboard/Mouse port
Serial Port / Header	1x header
TPM	1x TPM 1.2 20-pin Header

EXPANSION SLOTS

PCI-Express	4x PCI-E 3.0 x16 slots (runs at 16/16/NA/8 or 16/8/8/8) 2x PCI-E 2.0 x1 (in x4) slots PCI-E slot #1 supports (x4) and slot #4 (x16) is disabled when an Intel Core i7-5820K is installed
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SYSTEM BIOS

BIOS Type	128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) APM 1.2 DMI 2.3 PCI 2.3 ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support Hardware BIOS Virus protection SMBIOS 2.7.1 UEFI 2.3.1 RTC (Real Time Clock) Wakeup

MANAGEMENT

Software	SuperDoctor 5 SuperDoctor III Watch Dog
Power Configurations	ACPI Power Management Keyboard Wakeup from Soft-Off CPU Fan auto-off in sleep mode Power-on mode for AC power recovery

CHASSIS

Form Factor	Mid-Tower
Model	CSE-732D3-903B

DIMENSIONS AND WEIGHT

Height	16.7" (424mm)
Width	7.6" (193mm)
Depth	20.68" (525.3mm)
Weight	Gross Weight: 35.5 lbs (16.1kg) Net Weight: 29.5 lbs (13.4 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button
LEDs	Power LED Hard drive activity LED Network activity LED System Information LED
Ports	2x front USB 3.0 Ports 2x front HD/AC97 Audio Ports

DRIVE BAYS

Internal	4x 3.5" fixed drive bays Enterprise SATA HDD only recommended
Peripheral	2x 5.25" peripheral drive bays 1x card reader module

SYSTEM COOLING

Fans	1x 12cm front cooling fan
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POWER SUPPLY

AC Voltage	100-240 V, 50-60 Hz, 10-6 Amp
+5V Standby	3 Amp
+12V1	25 Amp
+12V2	25 Amp
+12V3	25 Amp
+12V4	25 Amp
+5V	25 Amp
+3.3V	25 Amp
-12V	0.5 Amp
Certification	Gold Level
Note:	- Max. continuous combined load on +3.3V and +5V output shall not exceed 155W. - Max. continuous combined load on +12V1, +12V2, +12V3 and +12V4 output shall not exceed 860W.

PC HEALTH MONITORING

Voltage	+12V, +3.3V, +5V, 1.05 (PCH), 1.2V (VDIMM), 3.3V standby, Chassis intrusion header, Monitors CPU voltages, VBAT
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FAN	Total of 5 fan headers supporting up to 5 fans 5 fan headers 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

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

