

TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Server SYS-5039A-IL

SKU SYS-5039A-IL

Tower

Supermicro

SuperWorkstation SYS-5039A-IL*(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-5039a-il

01 Product overview

The Supermicro SYS-5039A-IL is a server built on Intel Core with up to 64 GB of memory in 4 DIMM slots.

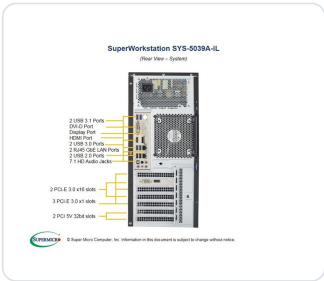
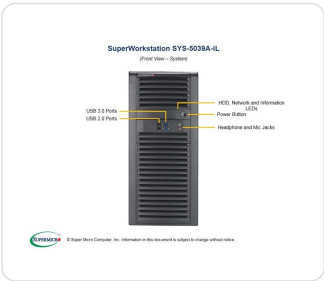
ServerInvest configures every SYS-5039A-IL to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Core
- Up to 64 GB memory · 4 DIMM slots
- 4 Internal 3.5" fixed drive bays
- Power: 100 - 240V, 50-60Hz
- Networking: Intel I210-AT + Intel PHY i219LM Ethernet Controllers

KEY SPECIFICATIONS

Form factor	Tower
Processor	Intel Core
Memory	4 DIMM slots, up to 64 GB
Drive bays	4
Typical power draw	450 W
Networking	Intel I210-AT + Intel PHY i219LM Ethernet Controllers



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

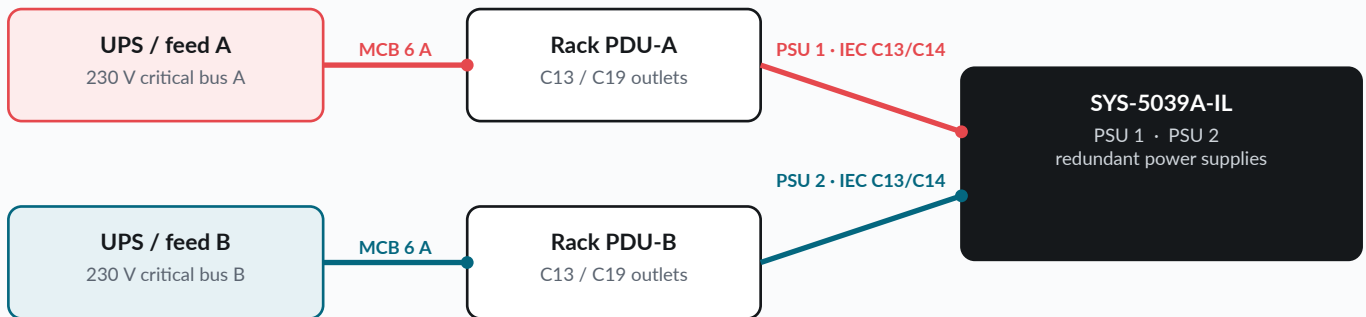
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

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/CACHE

CPU Single Socket H4 (LGA 1151) supports:
 Intel Xeon processor E3-1200 v6/v5,
 Intel 7th/6th Gen Core i7/i5/i3,
 Intel Pentium,
 Intel Celeron processors
 CPU TDP up to 95W

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/Non-ECC UDIMM

Memory Type 2400/2133/1866/1600MHz
 ECC/non-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

Network Controllers	Intel I210-AT + Intel PHY i219LM Ethernet Controllers Virtual Machine Device Queues reduce I/O overhead Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Graphics	1 HDMI, 1 DVI-D, 1 Display port (Triple Display)
Audio	ALC 888S HD Audio

INPUT / OUTPUT

SATA	8 SATA3 (6Gbps) ports from Intel C236; RAID 0, 1, 5, 10
LAN	2 RJ45 Gigabit Ethernet LAN ports
USB	6 USB 3.0 ports (2 rear + 4 via headers) 8 USB 2.0 ports (2 rear + 6 via headers) 2 USB 3.1 (rear)
Audio	7.1 HD Jacks
Display	1 HDMI, 1 DVI-D, 1 Display port (Triple Display); an Intel HD Graphics Integrated CPU is required for motherboard onboard video function
Serial Port / Header	2 COM ports (headers)

EXPANSION SLOTS

PCI-Express	2 PCI-E 3.0 x16 slots - Function as: x16/NA or x8/x8 3 PCI-E 3.0 x1 slots
PCI	2 PCI 32-bit slots

SYSTEM BIOS

BIOS Type	128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) APM 1.2 DMI 2.3 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

CHASSIS

Form Factor	Mid-Tower
Model	CSE-732D4-668B CSE-732D4-500B ---->

DIMENSIONS AND WEIGHT

Height	16.7" (424mm)
Width	7.6" (193mm)
Depth	20.68" (525.3mm)
Gross Weight	40 lbs (18.1 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button
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LEDs	Power LED Hard drive activity LED Network activity LED System Information LED
Ports	2 front USB 3.0 Ports 2 front USB 2.0 Ports 2 front HD/AC97 Audio Ports

DRIVE BAYS

Internal	4 Internal 3.5" fixed drive bays
Peripheral	2x 5.25" peripheral device bays

SYSTEM COOLING

Fans	1x 12cm rear exhaust fan with Optimal Fan Speed Control Optimized cooling technology for Whisper-Quiet Operation (21dB)
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POWER SUPPLY

AC Voltage	100 - 240V, 50-60Hz
+5V	20 Amp
+5V standby	2 Amp
+12V	Max: 54A & Min: 0.2A (100Vac-240Vac)
-12V	0.1 Amp
+3.3V	15 Amp
Certification	Platinum Certified
AC Voltage	100 - 240V, 50-60Hz, 7-3.5 Amp
+5V	20 Amp
+5V standby	3 Amp
+12V1	17 Amp
+12V2	17 Amp
+12V3	17 Amp
+12V4	18 Amp
-12V	0.5 Amp
+3.3V	15 Amp
Certification	Bronze Certified [Test Report]

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. 6-Phase-switching voltage regulator
FAN	Low noise fan speed control
Temperature	Monitoring for CPU and chassis environment Thermal Control for 8x fan connectors 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

