

TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Server SYS-7039A-I

SKU SYS-7039A-I

Tower

Supermicro

SuperWorkstation SYS-7039A-I*(Angled View)*

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FORM FACTOR

Tower

MAX POWER (BASE)

522 W

HEAT OUTPUT

1,781 BTU/h

PRICE

On request**REQUEST A QUOTATION ONLINE**serverinvest.com/product/sys-7039a-i

01 Product overview

The Supermicro SYS-7039A-I is a server built on dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process processors with up to 4 TB of memory in 16 DIMM slots.

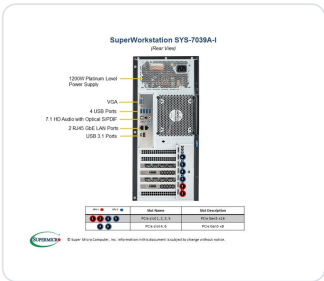
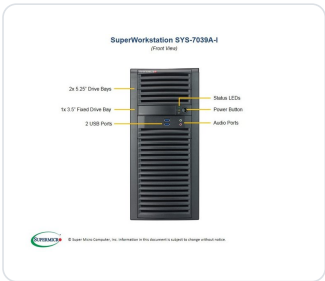
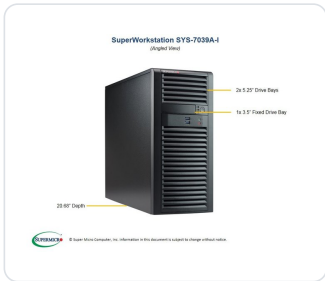
ServerInvest configures every SYS-7039A-I to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
- Up to 4 TB memory · 16 DIMM slots
- 4 Fixed 3.5" drive bays
- Power: 94%
- Networking: Dual LAN with GbE from C621

KEY SPECIFICATIONS

Form factor	Tower
Processor	2× Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
Memory	16 DIMM slots, up to 4 TB
Drive bays	4
Typical power draw	750 W
Networking	Dual LAN with GbE from C621



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
106 W	318 W	522 W	1,781 BTU/h	0.5 kW	—

Typical 318 W · max 522 W

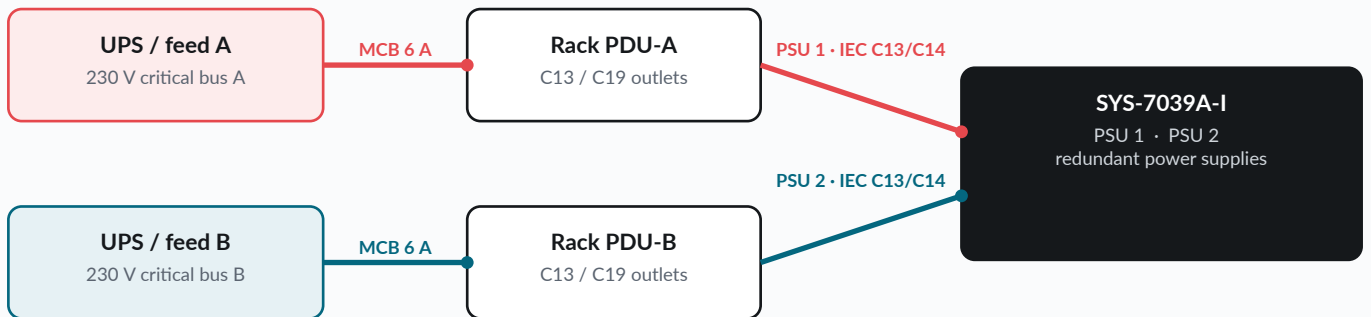
Annual IT energy (24/7)	2,229 kWh
Annual facility energy (PUE 1.5)	3,344 kWh
Annual energy cost	€446 IT · €669 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.87 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	85 W
2× CPU (base configuration)	50 W	220 W	370 W
4× Memory (base configuration)	12 W	20 W	36 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: 2.4 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: 522 W = 1,781 BTU/h (0.5 kW).

04 Full specifications

PROCESSOR/CACHE

CPU	Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ , Dual UPI up to 10.4GT/s Support CPU TDP 70-205W *
Cores	Up to 28 Cores
Note	* 200W/205W CPUs are supported under certain configurations. Special Low Tcase CPU SKUs are not supported. Please contact Supermicro Technical Support for additional information and specialized system optimization.
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel Xeon Scalable processors (codenamed Cascade Lake-R)
Note	Must add Heatsink SNK-P0070APS4 when purchasing complete system from Supermicro.

SYSTEM MEMORY

Memory Capacity	16 DIMM slots Up to 4TB 3DS ECC DDR4-2933MHz † ---> RDIMM/LRDIMM Supports Intel Optane DCPMM †† update per Clinton 11/13/20 --->
Memory Type	2933 † --->/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
DIMM Sizes	RDIMM: 64GB LRDIMM: 64GB 3DS LRDIMM: 128GB
Memory Voltage	1.2V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory)

Note	DIMM capacities larger than 32GB are supported under certain configurations. Please contact Supermicro Technical Support for additional information and specialized system optimization. † 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro †† Cascade Lake only. Contact your Supermicro sales rep for more info. --->
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ON-BOARD DEVICES

Chipset	Intel C621 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Controllers	Dual LAN with GbE from C621
IPMI	ASPEED AST2500
Audio	RealTek ALC888 7.1 High Definition Audio with S/PDIF header

INPUT / OUTPUT

SATA	10 SATA3 (6Gbps) ports
NVMe	2 NVMe support with optional cables
LAN	2 RJ45 Gigabit Ethernet LAN ports
USB	6 USB 3.0 ports (4 rear, 2 front) 2 USB 3.1 ports (rear)
Audio	7.1 HD Audio with optical S/PDIF
Video	1 VGA port
Serial Port / Header	1 COM port (header)
DOM	2 SuperDOM (Disk on Module) ports
TPM	1 TPM 2.0 Header

SYSTEM BIOS

BIOS Type	UEFI 128M
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MANAGEMENT

Software	Intel Node Manager IPMI 2.0 SSM , SPM , SUM SuperDoctor 5 Watchdog
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PC HEALTH MONITORING

CPU	Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator
FAN	Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors

CHASSIS

Form Factor	Mid-Tower
Model	CSE-732D3-1K26B

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
LEDs	Power LED Hard drive activity LED Network activity LED System Information LED
Ports	2 front USB 3.0 Ports 2 front HD/AC97 Audio Ports

EXPANSION SLOTS

PCI-Express	4 PCI-E 3.0 x16 slots 2 PCI-E 3.0 x8 slots
M.2	M.2 Interface: PCI-E 3.0 x4 Form Factor: 2260, 2280, 22110 Key: M-Key

DRIVE BAYS

Internal	4 Fixed 3.5" drive bays (90° rotatable drive cage) Enterprise SATA HDD only recommended
Peripheral Bay	2x 5.25" standard drive bays 4x 2.5" fixed drive bays (optional)

SYSTEM COOLING

Fans	1x 12cm rear exhaust fan 1x 12cm front cooling fan Optimized cooling technology for Whisper-Quiet Operation
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POWER SUPPLY

Power Efficiency	94%
Total Output Power and Input	1000W with Input 100 - 120Vac 1200W with Input 120 - 240Vac
AC Input Frequency	50-60 Hz
Dimensions (L x W x H)	185 x 150 x 86 mm
Output Type	24pin ATX
-12V	Max: 0.3A / Min: 0A
+12V	Max: 83A (100Vac - 120Vac) Max: 99A (120Vac - 240Vac)
+5V	Max: 20A / Min: 0A
+3.3V	Max: 20A / Min: 0A

+5Vsb	Max: 3A / Min: 0A
Certification	Platinum Certified

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

