

TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro 4U Tower SuperWorkstation Server SYS-740A-T

DP 4U rackmount tower workstation for rendering, CAD and content creation

SKU SYS-740A-T

4U

LGA4189

Supermicro



FORM FACTOR

4U

MAX POWER (BASE)

602 W

HEAT OUTPUT

2,054 BTU/h

PRICE

On request

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-740a-t

01 Product overview

The Supermicro SYS-740A-T is a 4U Tower SuperWorkstation Server built on dual Intel Xeon Scalable 3rd Gen processors with up to 2 TB of memory in 16 DIMM slots.

DP 4U rackmount tower workstation for rendering, CAD and content creation.

The chassis accepts up to 2 GPU accelerators for AI, rendering and HPC workloads.

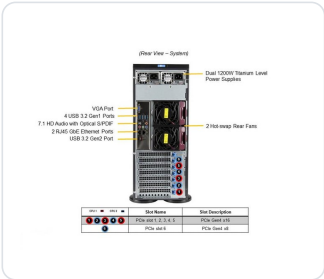
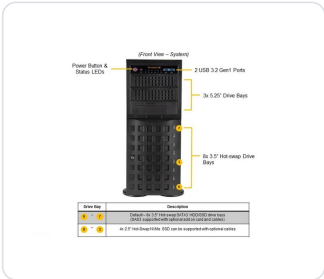
ServerInvest configures every SYS-740A-T to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Intel Xeon Scalable 3rd Gen
- Up to 2 TB memory · 16 DIMM slots
- Total 8 bays 4 front hot-swap 3.5" SAS*/SATA drive bays
- Up to 2 GPUs
- Power: 1x 1200W
- Networking: 2 RJ45 1GbE

KEY SPECIFICATIONS

Form factor	4U
Processor	2× Intel Xeon Scalable 3rd Gen
Socket	LGA4189
Memory	16 DIMM slots, up to 2 TB
Drive bays	12 (12 NVMe)
GPU	Up to 2 GPUs
Power supply	1× 1200 W
Typical power draw	1650 W
Networking	2 RJ45 1GbE
Dimensions (W×H×D)	437 × 178 mm



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
143 W	374 W	602 W	2,054 BTU/h	0.6 kW	50%

Typical 374 W · max 602 W · single PSU rating 1200 W

Annual IT energy (24/7)	2,669 kWh
Annual facility energy (PUE 1.5)	4,004 kWh
Annual energy cost	€534 IT · €801 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	1.04 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1200 W

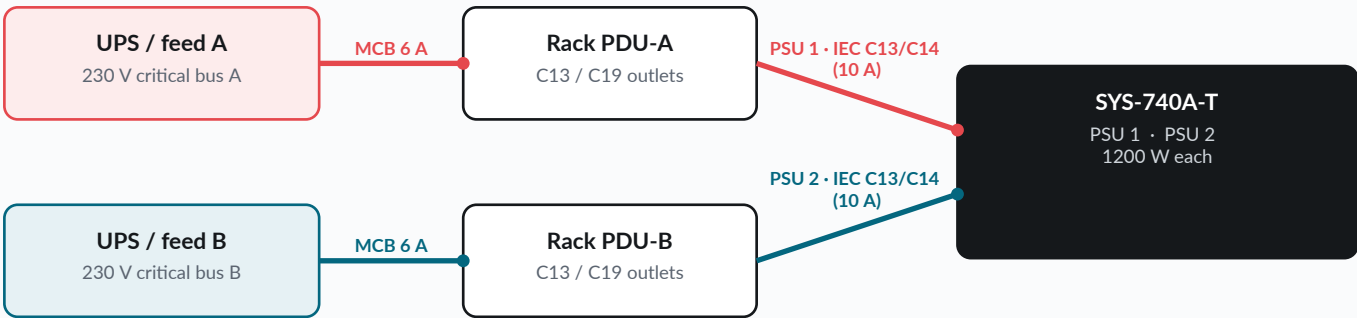
POWER BY COMPONENT

	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	72 W	112 W	160 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 (10 A) power cords.
- Maximum current per feed: 2.8 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: 602 W = 2,054 BTU/h (0.6 kW).

04 Full specifications

MOTHERBOARD	
	Super X12DAI-N6
PROCESSOR	
CPU	Dual Socket P+ (LGA-4189) 3rd Gen Intel Xeon Scalable processors
Core Count	Up to 40C/80T; Up to 60MB Cache per CPU
Note	Supports up to 270W TDP CPUs (Air Cooled)
GPU	
Max GPU Count	Up to 2 double-width or 2 single-width GPUs
Supported GPU	NVIDIA PCIe: RTX 5000, RTX A4000, RTX A5000, RTX A6000
CPU-GPU Interconnect	PCIe 4.0 x16 Switch Single-Root
SYSTEM MEMORY	
Memory	Slot Count: 16 DIMM slots Max Memory (2DPC): Up to 2TB 3200MT/s ECC DDR4 RDIMM/LRDIMM Supports Intel Optane persistent memory 200 series View Memory Options
Memory Voltage	1.2V

ON-BOARD DEVICES

SATA	SATA (6Gbps) ; RAID 0/1/5/10 support
Network Connectivity	2 RJ45 1GbE View AOC Options

INPUT / OUTPUT

LAN	2 RJ45 1 GbE LAN ports (IPMI shared on LAN port 1)
USB	4 USB 3.2 Gen1 ports (rear) 2 USB 3.2 Gen1 ports (front)
Video	1 VGA port
DOM	2 SATA DOM (Disk on Module) ports
Audio	7.1 HD Audio

SYSTEM BIOS

BIOS Type	AMI 32MB SPI FLASH ROM
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MANAGEMENT

Software	SuperCloud Composer (SCC) Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) Supermicro SuperDoctor 5 (SD5) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	ACPI/APM Power Management

SECURITY

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

PC HEALTH MONITORING

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

CERTIFICATIONS

Operating Systems	RHEL 8.2, Windows Server 2019, Windows Server 2022 View all OS Compatibility and Certification Matrix
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CHASSIS

Form Factor	4U Tower Rackmount
Model	CSE-745BTS-R1K23BP3

DIMENSIONS AND WEIGHT

Height	17.8" (452 mm)
Width	7" (178 mm)
Depth	25.5" (647 mm)
Package	24.6" (H) x 14" (W) x 31.3" (D)
Weight	Gross Weight: 62 lbs (28.12 kg) Net Weight: 59 lbs (26.76 kg)
Available Color	black

FRONT PANEL

Buttons	Power On/Off button Reset button
LED	HDD activity LED Network activity LEDs Power status LED

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 5 PCIe 4.0 x16 FHFL slots 1 PCIe 4.0 x8 FHHL slot View AOC Options
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DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 8 bays 4 front hot-swap 3.5" SAS*/SATA drive bays 4 front hot-swap 3.5" NVMe*/SATA drive bays (*NVMe/SAS 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	2 M.2 NVMe slots (M-key) View M.2 Options
Peripheral Bays	3 5.25" peripheral bays (optional)

SYSTEM COOLING

Fans	Up to 5x 8cm heavy duty fans with optimal fan speed control
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POWER SUPPLY

1x 1200W
1x 1200W Redundant Titanium Level (96%) power supply
Dimension (WxHxL)
76 x 40 x 336 mm

OPERATING ENVIRONMENT

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/sys-740a-t/datasheet/manufactur

