TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro 2U Mainstream Server SYS-620P-TRT

2U Mainstream with 8 hot-swap SATA bays, 6 PCIe 4.0 slots and 10GbE

SKU SYS-620P-TRT | 2U | LGA4189 | Supermicro

FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
2U	549 W	1,873 BTU/h	On request

ISO 9001 · ISO 14001 · ISO 27001

REQUEST A QUOTATION ONLINE
serverinvest.com/product/sys-620p-trt

01 Product overview

The Supermicro SYS-620P-TRT is a 2U Mainstream Server built on dual Intel Xeon Scalable 3rd Gen processors with up to 4 TB of memory in 16 DIMM slots.

2U Mainstream with 8 hot-swap SATA bays, 6 PCIe 4.0 slots and 10GbE.

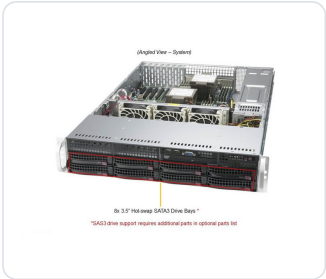
ServerInvest configures every SYS-620P-TRT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

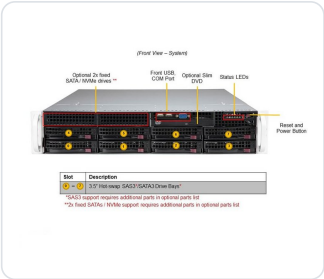
KEY SPECIFICATIONS

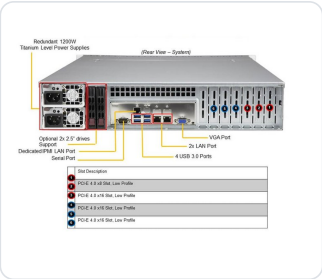
Form factor	**2U**
Processor	**2× Intel Xeon Scalable 3rd Gen**
Socket	**LGA4189**
Memory	**16 DIMM slots, up to 4 TB**
Drive bays	**20 (20 NVMe)**
Power supply	**2× 1200 W**
Typical power draw	**750 W**
Networking	**2 RJ45 10GbE**
Dimensions (W×H×D)	**437 × 89 mm**

HIGHLIGHTS

- Dual Intel Xeon Scalable 3rd Gen
- Up to 4 TB memory · 16 DIMM slots
- Total 8 bays 8 front hot-swap 3.5" SAS*/SATA drive bays
- Power: 2x 1200W
- Networking: 2 RJ45 10GbE







02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
119 W	**337 W**	**549 W**	**1,873 BTU/h**	**0.5 kW**	**46%**

Typical 337 W · max 549 W · single PSU rating 1200 W

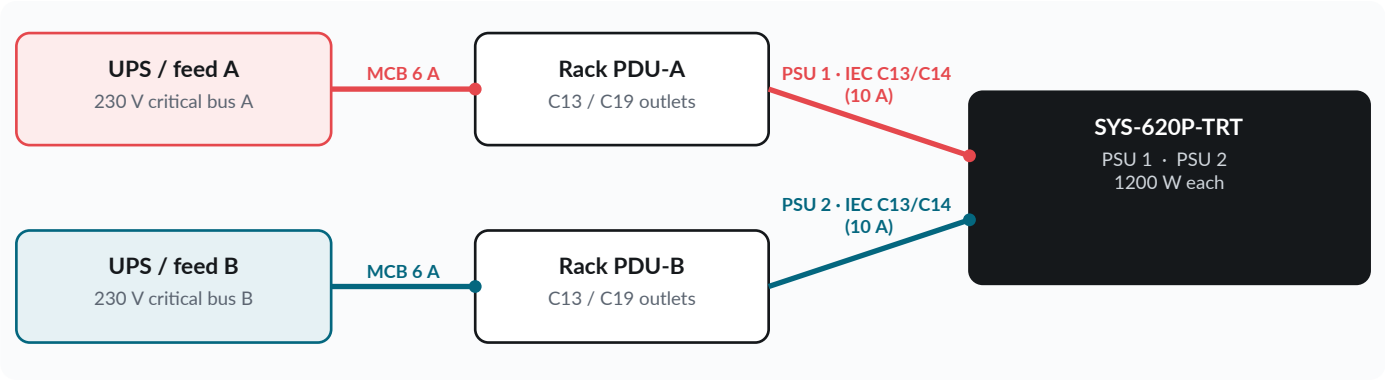
Annual IT energy (24/7)	2,379 kWh
Annual facility energy (PUE 1.5)	3,569 kWh
Annual energy cost	€476 IT · €714 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.93 t (grid factor 0.26 kg/kWh)
Power supplies	2× 1200 W redundant (N+1)

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	**110 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: 2.5 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: 549 W = 1,873 BTU/h (0.5 kW).

04 Full specifications

MOTHERBOARD	
	Super X12DPi-NT6

PROCESSOR	
CPU	Dual Socket P+ (LGA-4189) 3rd Gen Intel Xeon Scalable processors
Core Count	Up to 36C/72T; Up to 60MB Cache per CPU
Note	Supports up to 270W TDP CPUs (Air Cooled)

SYSTEM MEMORY	
Memory	Slot Count: 16 DIMM slots Max Memory (2DPC): Up to 4TB 3200MT/s ECC DDR4 RDIMM/LRDIMM Supports Intel Optane persistent memory 200 series View Memory Options
Memory Voltage	1.2V

ON-BOARD DEVICES	
Network Connectivity	2 RJ45 10GbE View AOC Options

INPUT / OUTPUT	
LAN	1 RJ45 1 GbE Dedicated BMC LAN port
USB	2 USB 2.0 ports (front) 4 USB 3.0 ports (rear)
Video	1 VGA port
DOM	2 Super DOM (Disk on Module) ports

SYSTEM BIOS

BIOS Type	AMI 32MB SPI Flash EEPROM

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	4+1 Phase-switching voltage regulator 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	ESXi 6.7 U3, ESXi 7.0 U2, ESXi 8.0, Oracle Linux 8.3, RHEL 8.2, RHEL 9.0, Windows Server 2019, Windows Server 2022 View all OS Compatibility and Certification Matrix

CHASSIS

Form Factor	2U Rackmount
Model	CSE-825BTS-R1K23LPP1

DIMENSIONS AND WEIGHT

Height	3.5" (89 mm)
Width	17.2" (437 mm)
Depth	25.5" (647 mm)
Package	11.4" (H) x 26.7" (W) x 34.5" (D)
Weight	Gross Weight: 69 lbs (31.2 kg) Net Weight: 36.38 lbs (16.5 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off System Reset
LED	HDD activity Network activity Power status System information (overheat/UID)

EXPANSION SLOTS

PCI-Express (PCIe) Configuration	Default 2 PCIe 4.0 x8 LP slots 4 PCIe 4.0 x16 LP slots View AOC Options

DRIVE BAYS / STORAGE

Drive Bays Configuration	Default: Total 8 bays 8 front hot-swap 3.5" SAS*/SATA drive bays Option A: Total 10 bays 8 front hot-swap 3.5" SAS*/SATA drive bays 2 front fixed 3.5" NVMe*/SATA* drive bays (*NVMe/SAS/SATA support may require additional storage controller and/or cables, please see the optional parts list for details) View Drive Options
M.2	1 M.2 NVMe slot (M-key) View M.2 Options
Peripheral Bays	1 slim DVD bay (optional)

SYSTEM COOLING

Fans	Up to 3 heavy duty fans with optimal fan speed control

POWER SUPPLY

	2x 1200W 2x 1200W Redundant Titanium Level (96%) Hot-plug power supplies Dimension (WxHxL) 76 x 40 x 336 mm

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
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.

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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-620p-trt/datasheet/manufacturer