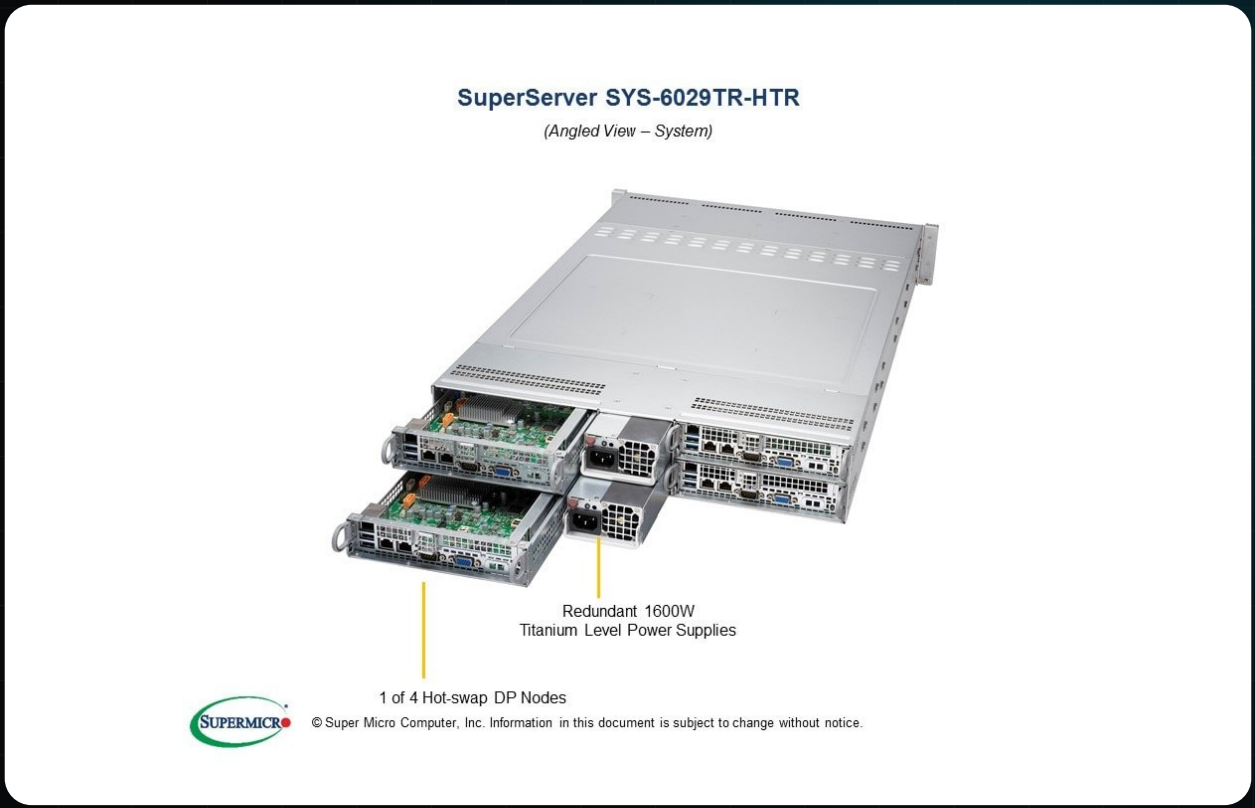
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-6029TR-HTR

SKU SYS-6029TR-HTR | 2U | Supermicro



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

REQUEST A QUOTATION ONLINE
serverinvest.com/product/sys-6029tr-htr

01 Product overview

The Supermicro SYS-6029TR-HTR is a server built on dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process processors with up to 2 TB of memory in 8 DIMM slots.

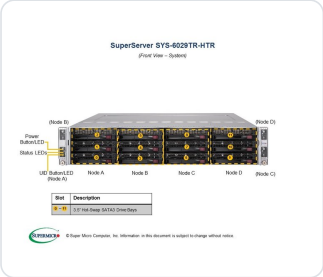
ServerInvest configures every SYS-6029TR-HTR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

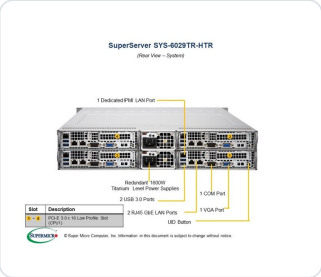
HIGHLIGHTS

- Dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
- Up to 2 TB memory · 8 DIMM slots
- 3 Hot-swap 3.5" SATA3 HDD trays
- Power: 800W: 100 – 140Vac
- Networking: Intel C621 chipset

KEY SPECIFICATIONS

Form factor	**2U**
Processor	**2× Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process**
Memory	**8 DIMM slots, up to 2 TB**
Power supply	**1× 800 W**
Typical power draw	**750 W**
Networking	**Intel C621 chipset**
Dimensions (W×H×D)	**437 × 89 mm**





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**	**69%**

Typical 337 W · max 549 W · single PSU rating 800 W

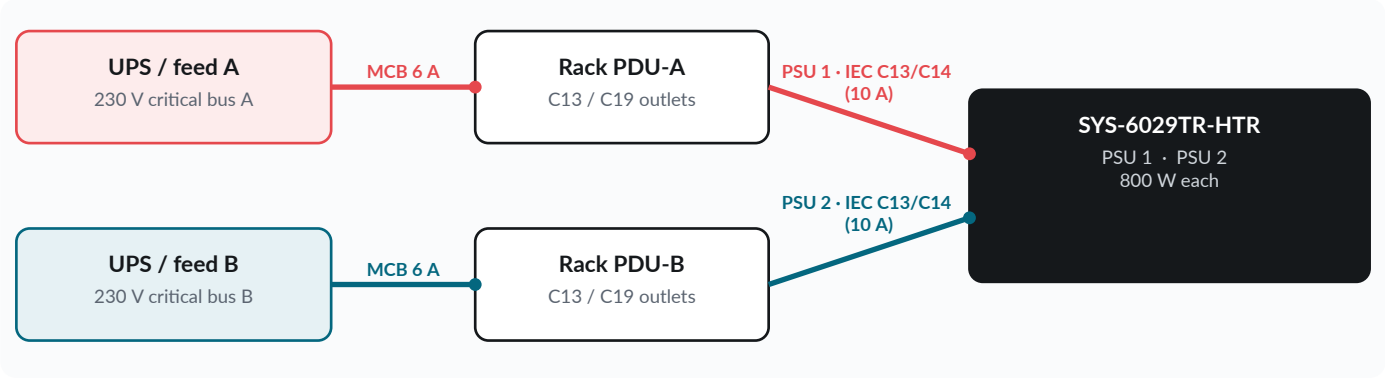
Annual IT energy (24/7)	2,379 kWh
Annual facility energy (PUE 1.5)	3,569 kWh
Annual energy cost	€476 IT · €714 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.93 t (grid factor 0.26 kg/kWh)
Power supplies	1× 800 W

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

PROCESSOR (PER NODE)	
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 70-140W
Cores	Up to 22 Cores
Note	* Processors ending N or S (such as 6230N, 5220S) are not supported
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel Xeon Scalable processors (codenamed Cascade Lake-R)

SYSTEM MEMORY (PER NODE)	
Memory Capacity	8 DIMM slots Up to 2TB 3DS ECC DDR4-2933MHz † RDIMM/LRDIMM
Memory Type	2933 † /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	† 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro

ON-BOARD DEVICES (PER NODE)	
Chipset	Intel C621 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5 support
Network Controllers	Intel C621 chipset
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	ASPEED AST2500 BMC

INPUT / OUTPUT (PER NODE)

SATA	3 SATA3 (6Gbps) ports
LAN	2 RJ45 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	2 USB 3.0 ports total (rear)
VGA	1 VGA port
Serial Port / Header	1 COM Port (1 rear)
Others	TPM 2.0 Header

SYSTEM BIOS

BIOS Type	AMI 32Mb SPI Flash ROM with UEFI

MANAGEMENT

Software	Intel Node Manager IPMI 2.0 KVM with dedicated LAN NMI SSM , SPM , SUM SuperDoctor 5 Watchdog

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	2U Rackmount
Model	CSE-827HQ-R1K68BP3

DIMENSIONS AND WEIGHT

Width	17.25" (438mm)
Height	3.47" (88mm)
Depth	28.5" (724mm)
Weight	Gross Weight: 73.5 lbs (33.34kg) Net Weight: 52.1 lbs (23.63kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button UID button

LEDs	Power status LED HDD activity LED Network activity LEDs Universal Information (UID) LED

EXPANSION SLOTS (PER NODE)

PCI-Express	1 PCI-E 3.0 x16 Low-profile slot

DRIVE BAYS / STORAGE (PER NODE)

Hot-swap	3 Hot-swap 3.5" SATA3 HDD trays
Others	2 SATA DOM 1 PCI-E 3.0 x4 NVMe or 1 SATA M.2 (22110/2280) support via BPN-ADP-6SATA3M2-1UL * M.2 and SuperDOM are for OS boot

SYSTEM COOLING

Fans	4x 8cm heavy duty PWM fans with optimal fan speed controlled

POWER SUPPLY (76MM WIDTH)

Total Output Power	800W: 100 – 140Vac 1600W: 180 – 240Vac
Dimension (W x H x L)	76 x 40.4 x 336 mm
Input	100-140Vac / 10-7A / 50-60Hz 180-240Vac / 11-8A / 50-60Hz
+12V	Max: 67A / Min: 0A (100-140Vac) Max: 133A / Min: 0A (180-240Vac)
+5Vsb	Max: 1A / Min: 0A
Output Type	27 Pairs Gold Finger Connector
Certification	Titanium Level [Test Report]

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C ~ 35°C (50°F ~ 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.
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