

TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-9029GP-TNVRT

SKU SYS-9029GP-TNVRT

10U

Supermicro

SuperServer SYS-9029GP-TNVRT

(Angled View – System)


Slot	Description
A	NVIDIA HGX-2 Base Board 8 SXM3 GPU NVLink (CPU1)
B	NVIDIA HGX-2 Base Board 8 SXM3 GPU NVLink (CPU2)



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FORM FACTOR

10U

MAX POWER (BASE)

709 W

HEAT OUTPUT

2,419 BTU/h

PRICE

On request


REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-9029gp-tnvrt


01 Product overview

The Supermicro SYS-9029GP-TNVRT is a server built on dual Dual Socket P (LGA 3647) Intel Xeon Scalable Processors processors with up to 3 TB of memory in 24 DIMM slots.

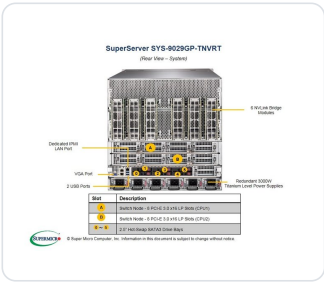
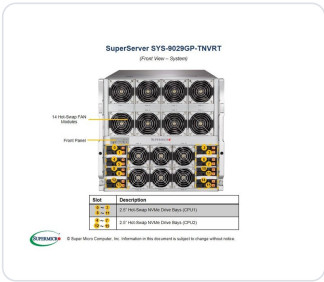
ServerInvest configures every SYS-9029GP-TNVRT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Dual Socket P (LGA 3647) Intel Xeon Scalable Processors
- Up to 3 TB memory · 24 DIMM slots
- 16 Hot-swap 2.5" NVMe drive bays *
- Power: 2883W with Input 200 - 207Vac
- Networking: Dual Port 10GBase-T from Intel X540 Ethernet Controller

KEY SPECIFICATIONS

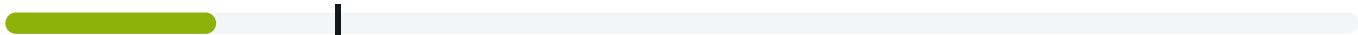
Form factor	10U
Processor	2× Dual Socket P (LGA 3647) Intel Xeon Scalable Processors
Memory	24 DIMM slots, up to 3 TB
Drive bays	22 (22 NVMe)
Power supply	1× 2883 W
Typical power draw	750 W
Networking	Dual Port 10GBase-T from Intel X540 Ethernet Controller
Dimensions (W×H×D)	437 × 445 mm



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
190 W	449 W	709 W	2,419 BTU/h	0.7 kW	25%



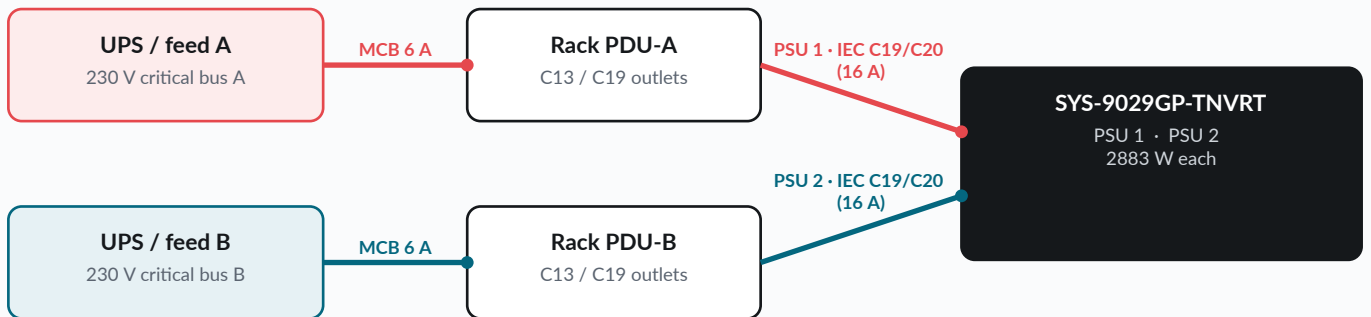
Annual IT energy (24/7)	3,253 kWh
Annual facility energy (PUE 1.5)	4,880 kWh
Annual energy cost	€651 IT · €976 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	1.27 t (grid factor 0.26 kg/kWh)
Power supplies	1× 2883 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	117 W	182 W	260 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 C19/C20 (16 A) power cords.
- Maximum current per feed: 3.2 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: 709 W = 2,419 BTU/h (0.7 kW).

04 Full specifications

PROCESSOR

CPU Dual Socket P (LGA 3647)
Intel Xeon Scalable Processors,
3 UPI up to 10.4GT/s
Support CPU TDP 205W

Cores Up to 28 Cores

GPU

Supported GPUs 16 SXM Socket Based
NVIDIA V100
Compatible GPU list

CPU-GPU Interconnect PCI-E Gen 3 x16 Switch CPU-GPU Interconnect

GPU-GPU Interconnect NVIDIA NVLink with NVSwitch GPU-GPU Interconnect

SYSTEM MEMORY

Memory Capacity 24 DIMM slots
Up to 3TB 3DS ECC L/RDIMM, up to DDR4-2933MHz

Memory Type 2933/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

ON-BOARD DEVICES

Chipset Intel C621 chipset

SATA SATA3 (6Gbps) with RAID 0, 1, 5, 10

Network Controllers Dual Port 10GBase-T from Intel X540 Ethernet Controller

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

SATA	6 SATA3 (6Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	2 USB 3.0 ports (front)
Video	1 VGA Connector
COM Port	1 COM port (header)

SYSTEM BIOS

BIOS Type	AMI 32Mb SPI Flash ROM
BIOS Features	Intel Node Manager IPMI 2.0 KVM with dedicated LAN SSM , SPM , SUM SuperDoctor 5 Watchdog

CHASSIS

Form Factor	10U Rackmountable
Model	CSE-1018G-R12KP

DIMENSIONS

Height	17.2" (437mm)
Width	17.8" (452mm)
Depth	27.75" (705mm)
Weight	Net Weight: 298 lbs (135 kg) Gross Weight: 385 lbs (175 kg)
Available Colors	Black

DRIVE BAYS / STORAGE

Hot-swap	16 Hot-swap 2.5" NVMe drive bays * 6 Hot-swap 2.5" SATA3 drive bays
M.2	M.2 Interface: 2 PCI-E 3.0 x4 Form Factors: 2280, 22110 Key: M-Key
Note	* NVMe hot-swap feature doesn't work in Windows environment

EXPANSION SLOTS

PCI-Express	16 PCI-E 3.0 x16 for RDMA via IB EDR - supporting 16 V100 GPUs 2 PCI-E 3.0 x16 on motherboard
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SYSTEM COOLING

Fans	6x 80mm Hot-swap PWM Fans 8x 92mm Hot-swap Fans
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POWER SUPPLY

Total Output Power	2883W with Input 200 - 207Vac 3000W with Input 208 - 240Vac
Dimension (W x H x L)	68 x 40 x 430 mm
Input	50-60Hz
+12V	Max: 53.4A & Min: 0.3A (200-207Vac) Max: 55.6A & Min: 0.3A (208-240Vac)
12Vsb	Max: 3A / Min: 0A
Output Type	Backplanes (gold finger)
Certification	Titanium Level

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: 10% to 85% (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

