

TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-2029U-MTNRV-NEBS-DC

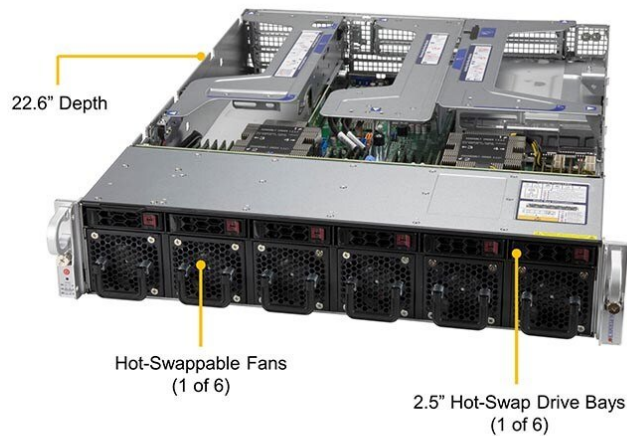
SKU SYS-2029U-MTNRV-NEBS-DC

2U

Supermicro

SuperServer SYS-2029U-MTNRV-NEBS-DC

(Angled View – System)



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FORM FACTOR

2U

MAX POWER (BASE)

549 W

HEAT OUTPUT

1,873 BTU/h

PRICE

On request



REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-2029u-mtnrv-nebs-dc



01 Product overview

The Supermicro SYS-2029U-MTNRV-NEBS-DC is a server built on dual Dual Socket P (LGA 3647) Intel Xeon Gold 6240R Processors (2 processors with up to 1.5 TB of memory in 24 DIMM slots.

ServerInvest configures every SYS-2029U-MTNRV-NEBS-DC 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 Gold 6240R Processors (2
- Up to 1.5 TB memory · 24 DIMM slots
- 6 Hot-swap 2.5" drive bays, 6 NVMe/SATA ports (NVMe from CPU1) or 6 SATA ports; Optional SAS support via SAS storage con
- Power: 1300W with Input -44 - -65Vdc
- Networking: Flexible Networking options

KEY SPECIFICATIONS

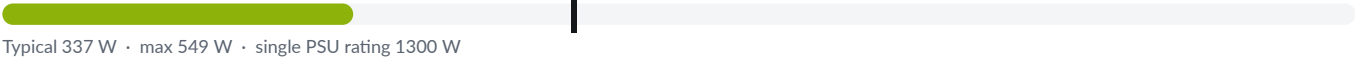
Form factor	2U
Processor	2× Dual Socket P (LGA 3647) Intel Xeon Gold 6240R Processors (2
Memory	24 DIMM slots, up to 1.5 TB
Drive bays	6 (6 NVMe)
Power supply	1× 1300 W
Typical power draw	750 W
Networking	Flexible Networking options
Dimensions (W×H×D)	437 × 89 mm



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	42%



Typical 337 W · max 549 W · single PSU rating 1300 W

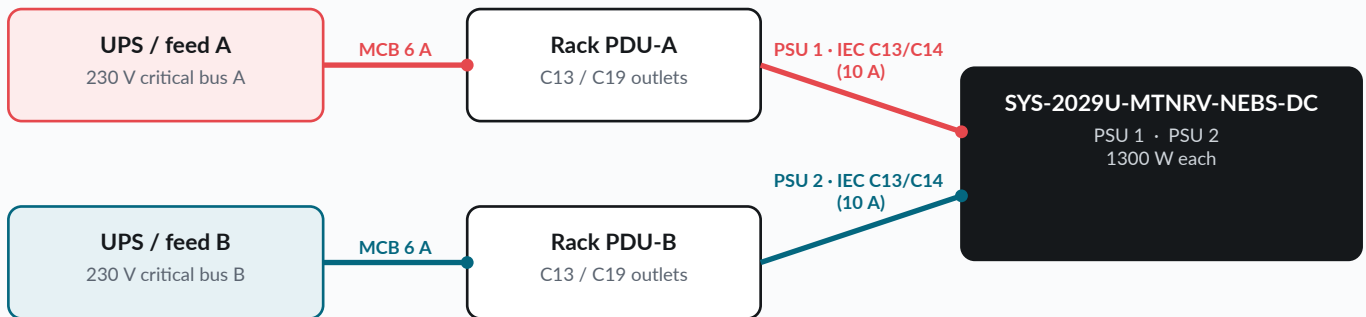
Annual IT energy (24/7)	2,379 kWh
Annual facility energy (PUE 1.5)	3,569 kWh
Annual energy cost	€476 IT · €714 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.93 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1300 W

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

CPU	Dual Socket P (LGA 3647) Intel Xeon Gold 6240R Processors (2.4GHZ) integrated for Complete System, CPU TDP 165W 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ , Dual UPI up to 10.4GT/s Support CPU TDP 70-205W --->
Cores	24 Cores
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel Xeon Scalable processors (codenamed Cascade Lake-R)

SYSTEM MEMORY

Memory Capacity	24 DIMM slots Up to 1.5TB 3DS ECC DDR4-2933MHz † RDIMM
Memory Type	2933 † /2666/2400/2133MHz ECC DDR4 RDIMM 2666 ECC DDR4 NVDIMM
Note	† 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.--->

ON-BOARD DEVICES

Chipset	Intel C621 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Connectivity	Flexible Networking options
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	Flexible LAN options 1 RJ45 Dedicated IPMI LAN port --->
USB	2 USB 3.0 ports (rear)
Video	1 VGA Connector
Serial Header	1 Serial header
DOM	2 Super DOM (Disk on Module) ports

SYSTEM BIOS

BIOS Type	AMI 32Mb SPI Flash ROM
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MANAGEMENT

Software	Intel Node Manager Redfish API IPMI 2.0 KVM with dedicated LAN NMI SSM , SPM , SUM SuperDoctor 5
Power Configurations	ACPI Power Management

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 Short Depth Rackmount
Model	CSE-219ULTS-R1K30P-NEBS

DIMENSIONS AND WEIGHT

Width	17.2" (432mm)
Height	3.5" (89mm)
Depth	22.6" (574mm)
Weight	Net Weight: 35 lbs (16 kg) Gross Weight: 56.5 lbs (25.6 kg)
Available Colors	Silver

FRONT PANEL

Front Bezel	2U Front Bezel Replaceable UL900-2004 certified air filter
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Buttons	Power On/Off button System Reset button
LEDs	Power status LED HDD activity LED Network activity LEDs System information (overheat/UID) LED

EXPANSION SLOTS

PCI-Express	2 PCI-E 3.0 x16 (FH, 10.5"L) 4 PCI-E 3.0 x8 (FH, 10.5"L) 1 PCI-E 3.0 x8 (LP) 1 PCI-E 3.0 x8 (int) (Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.)
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DRIVE BAYS / STORAGE

Hot-swap	6 Hot-swap 2.5" drive bays, 6 NVMe/SATA ports (NVMe from CPU1) or 6 SATA ports; Optional SAS support via SAS storage controller Note: SAS3 or NVMe support requires additional optional parts
M.2	1 M.2 PCI-E 3.0 x4 M-Key NVMe (2240/2260/2280/22110) or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional parts 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

SYSTEM COOLING

Fans	6 Hot-swap Heavy duty fans with optimal fan speed control
Air Shroud	1 Set of Air Shroud

POWER SUPPLY

Total Output Power	1300W with Input -44 - -65Vdc
Dimension (W x H x L)	73.5 x 40 x 203 mm
+12V	Max: 108.3A & Min: 0A (-44--65Vdc)
12Vsb	Max: 2.1A / Min: 0A
Output Type	Backplanes (gold finger)

-48VDC INPUT REDUNDANT POWER SUPPLIES

Total Output Power	1300W: -44Vdc to -65Vdc
Dimension (W x H x L)	73.5 x 40 x 265 mm
Input	-44Vdc to -65Vdc / Max: 41A to 27A
+12V	Max: 108.3A / Min: 0A (-44 to -65Vdc)
+12Vsb	Max: 2.1A / Min: 0A
Output Type	25 pair Gold Finger
Efficiency	Gold Level (Certification Pending)

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
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Environmental Spec.

Operating Temperature:
Continuous: 5°C ~ 40°C (41°F ~ 104°F)
Short term: -5°C ~ 55°C (23°F ~ 131°F)
Non-operating Temperature:
-40°C to 70°C (-40°F to 158°F)
Operating Relative Humidity:
5% to 85% with excursion of
5% to 93% (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

