

TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SSG-6049SP-E1CR90

SKU SSG-6049SP-E1CR90

4U

Supermicro

SuperStorage SSG-6049SP-E1CR90*(Angled View – System)*90x 3.5" SAS/SATA3
Hot-swap drives

Bottom node control panel



© Super Micro Computer, Inc. Information in this document is subject to change without notice.

FORM FACTOR

4U

MAX POWER (BASE)

602 W

HEAT OUTPUT

2,054 BTU/h

PRICE

On request

REQUEST A QUOTATION ONLINE

serverinvest.com/product/ssg-6049sp-e1cr90

01 Product overview

The Supermicro SSG-6049SP-E1CR90 is a server built on dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process processors with up to 4 TB of memory in 16 DIMM slots.

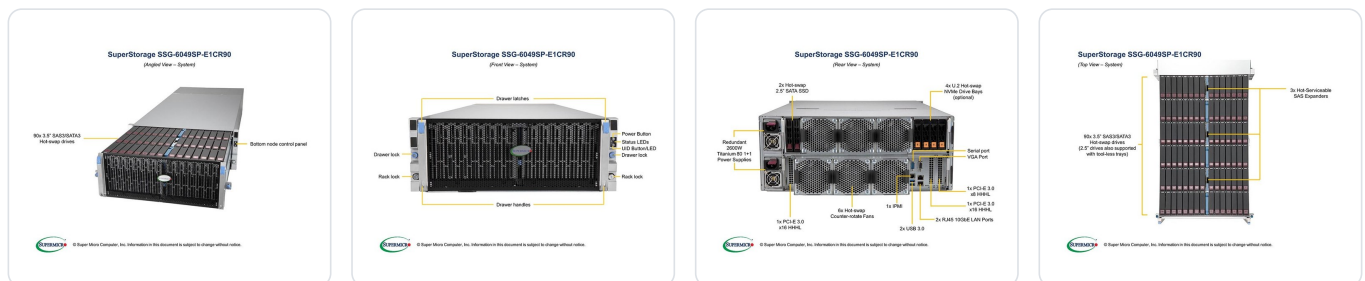
ServerInvest configures every SSG-6049SP-E1CR90 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
- Up to 4 TB memory · 16 DIMM slots
- 90x 3.5"/2.5" Hot-swap SAS3/SATA3
- Power: 2600W: 200 – 240Vac
- Networking: Dual 10GBase-T LAN ports via Intel X550

KEY SPECIFICATIONS

Form factor	4U
Processor	2× Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
Memory	16 DIMM slots, up to 4 TB
Power supply	1× 2600 W
Typical power draw	750 W
Networking	Dual 10GBase-T LAN ports via Intel X550
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	23%

Typical 374 W · max 602 W · single PSU rating 2600 W

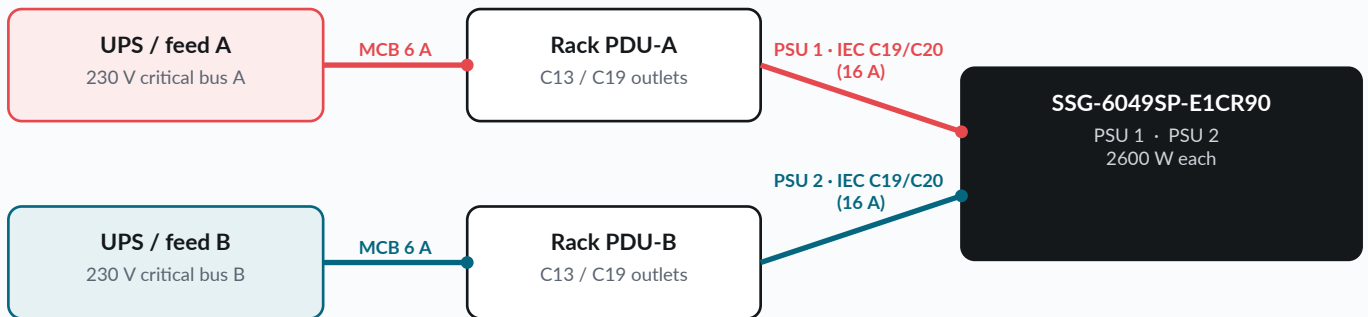
Annual IT energy (24/7)	2,669 kWh
Annual facility energy (PUE 1.5)	4,004 kWh
Annual energy cost	€534 IT · €801 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	1.04 t (grid factor 0.26 kg/kWh)
Power supplies	1× 2600 W

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 C19/C20 (16 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

PROCESSOR/CACHE

CPU	Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ , 3 UPI up to 10.4GT/s Support CPU TDP 70-205W
Cores	Up to 28 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	16 DIMM slots Up to 4TB 3DS ECC DDR4-2933MHz † RDIMM/LRDIMM Supports Intel Optane DCPMM ††
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 †† Cascade Lake only. Contact your Supermicro sales rep for more info.

ON-BOARD DEVICES

Chipset	Intel C621 chipset
Storage	Dual Broadcom 3616 controllers (IT Mode) or Broadcom 3916 RAID
Network Controllers	Dual 10GBase-T LAN ports via Intel X550
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

Serial ATA	4 SATA3 (6Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 Dedicated IPMI LAN port
USB	2 USB 3.0 ports (rear) 1 Type A
VGA	1 VGA D-Sub connector port
Serial Port / Header	1 Fast UART 16550 port / 1 Header

SYSTEM BIOS

BIOS Type	AMI UEFI
-----------	----------

MANAGEMENT

Software	Intel Node Manager IPMI 2.0 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	4U Rackmount
Model	CSE-947HTS-R2K05BP

DIMENSIONS

Width	17.68" (449mm)
Height	6.96" (177mm)
Depth	42.9" (1091mm)
Weight	Gross Weight: 240 lbs (108.86kg) Net Weight: 150 lbs (68.04 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
---------	--

LEDs	Power status LED Hard drive activity LED Network activity LEDs System Information LED Power fail LED
------	--

EXPANSION SLOTS

PCI-Express	2 PCI-E 3.0 x16 (HHHL) slots 1 PCI-E 3.0 x8 (HHHL) slot
-------------	--

DRIVE BAYS

Hot-swap	90x 3.5"/2.5" Hot-swap SAS3/SATA3
Fixed	2x 2.5" internal fixed slim SATA SSD
M.2	2x NVMe M.2 (form factor: 2280 and 22110)

SYSTEM COOLING

Fans	6x 8cm hot-swap counter-rotate redundant PWM cooling fans
------	---

POWER SUPPLY

Total Output Power	2600W: 200 – 240Vac 2600W: 200 – 220Vdc (CQC only)
Dimension (W x H x L)	73.5 x 40 x 265 mm
AC Input Frequency	50-60Hz
+12V	Max: 216A / Min: 0A (200-240Vac)
12Vsb	Max: 3.5A / Min: 0A
Output Type	25 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.



Interested in this solution?

Request a quotation online or talk to a solutions engineer — we reply within one business day.
office@serverinvest.com

