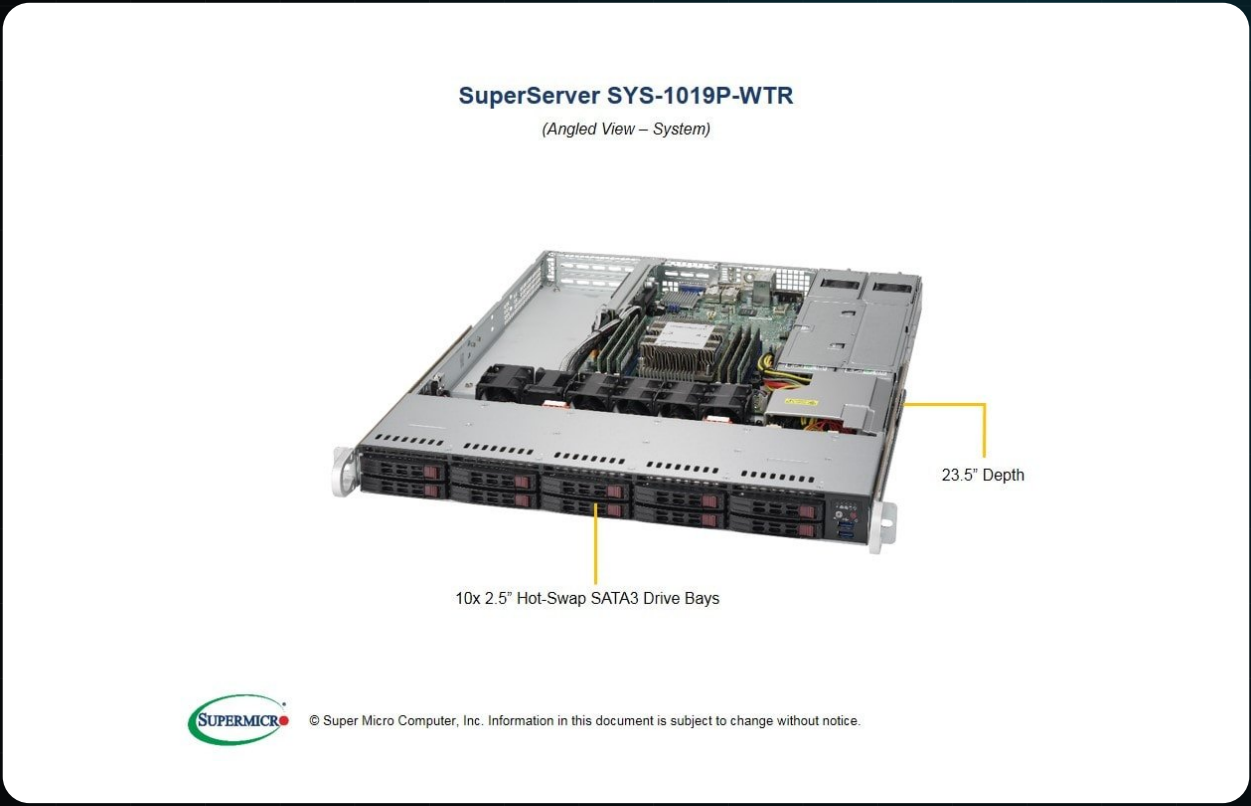
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-1019P-WTR

SKU SYS-1019P-WTR | 1U | Supermicro



FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
1U	306 W	1,044 BTU/h	On request

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

REQUEST A QUOTATION ONLINE
serverinvest.com/product/sys-1019p-wtr

01 Product overview

The Supermicro SYS-1019P-WTR is a server built on Single Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Proce with up to 1.5 TB of memory in 6 DIMM slots.

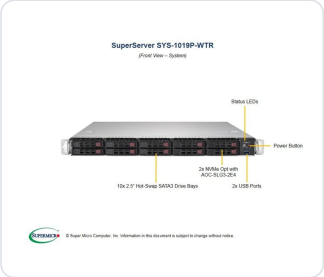
ServerInvest configures every SYS-1019P-WTR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

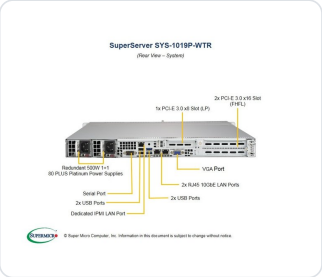
HIGHLIGHTS

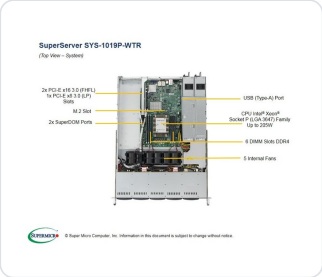
- Single Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Proce
- Up to 1.5 TB memory · 6 DIMM slots
- 10 Hot-swap 2.5" SATA3 drive bays
- Power: 500W: 100 – 240Vac
- Networking: Dual 10GBase-T LAN with Intel X722 + X557

KEY SPECIFICATIONS

Form factor	1U
Processor	Single Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Proce
Memory	6 DIMM slots, up to 1.5 TB
Drive bays	10 (10 NVMe)
Power supply	1× 500 W
Typical power draw	450 W
Networking	Dual 10GBase-T LAN with Intel X722 + X557
Dimensions (W×H×D)	437 × 44 mm







02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
73 W	190 W	306 W	1,044 BTU/h	0.3 kW	61%

Typical 190 W · max 306 W · single PSU rating 500 W

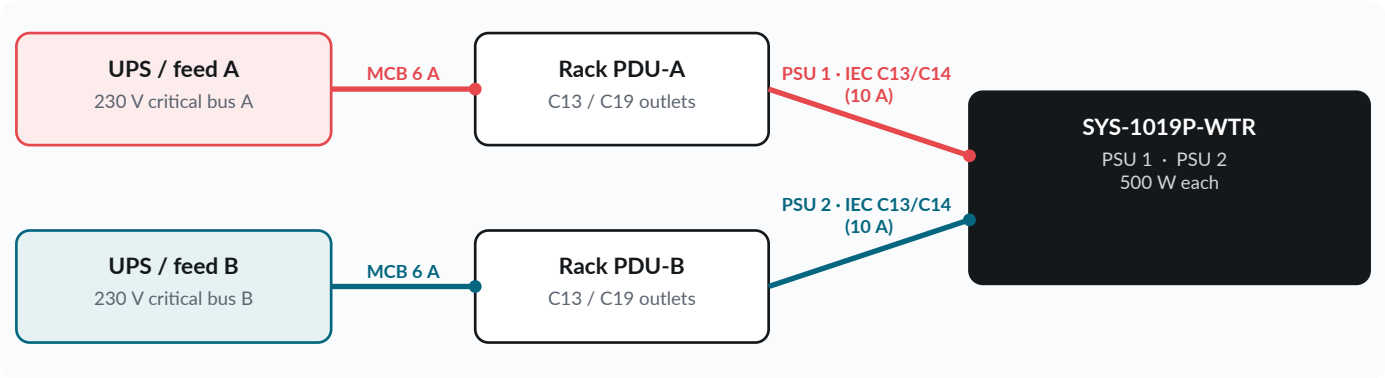
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	1× 500 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	**85 W**
CPU (base configuration)	25 W	110 W	**185 W**
2× Memory (base configuration)	6 W	10 W	**18 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: 1.4 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: 306 W = 1,044 BTU/h (0.3 kW).

04 Full specifications

PROCESSOR/CACHE	
CPU	Single Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ Support CPU TDP 70-205W *
Cores	Up to 28 Cores
Note	* Certain high frequency optimized CPU are not supported, such as Intel Gold 6250 and 6256. Please contact Supermicro Technical Support for additional information.
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	6 DIMM slots Up to 1.5TB 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 †† Cascade Lake only. Contact your Supermicro sales rep for more info.

ON-BOARD DEVICES	
Chipset	Intel C622 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Controllers	Dual 10GBase-T LAN with Intel X722 + X557
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Video	ASPEED AST2500 BMC

INPUT / OUTPUT

SATA	10 SATA3 (6Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear + 2 headers + 1 Type A) 7 USB 2.0 ports (2 rear + 5 headers)
Video	1 VGA port
Serial Port / Header	2 COM ports (1 rear, 1 header)
SuperDOM	Ports default connect to hard drive bays

SYSTEM BIOS

BIOS Type	AMI 32Mb SPI Flash ROM

MANAGEMENT

Software	Intel Node Manager IPMI 2.0 KVM with dedicated LAN NMI SPM , SUM SuperDoctor 5 Watch Dog
Power Configurations	ACPI / APM 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	1U Rackmount
Model	CSE-116AC2-R504WB

DIMENSIONS AND WEIGHT

Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	23.5" (597mm)
Package	24" (W) x 8" (H) x 32" (L)
Weight	Gross Weight: 27 lbs (12.25 kg) Net Weight: 15.5 lbs (7.03 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
LEDs	Power LED Hard drive activity LED Network activity LEDs System Information LED Information LED (temp., status)

EXPANSION SLOTS

PCI-Express	2 PCI-E 3.0 x16 (FHFL) slots 1 PCI-E 3.0 x8 (LP) slot
M.2	1x M.2 Interface: PCI-E 3.0 x4 and SATA Form Factor: 2280, 22110 Key: M-Key Double Height Connector

DRIVE BAYS

Hot-swap	10 Hot-swap 2.5" SATA3 drive bays 2 NVMe with AOC (option)

SYSTEM COOLING

Fans	5 counter-rotation 40x56mm PWM fans 1 fan for AOC cooling (option)

POWER SUPPLY

Total Output Power	500W: 100 – 240Vac
Dimension (W x H x L)	54.5 x 40.25 x 320 mm
Input	100-240Vac, 50-60Hz, 6.1-2.6A
+12V	Max: 42A / Min: 0.5A
+5Vsb	Max: 3A / Min: 0A
Output Type	Gold Finger Connector Mating with Molex 45984-4343
With Power Distributor	+5V: 25A +3.3V: 12A -12V: 0.6A
Certification	Platinum Certified [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.
office@serverinvest.com