

TECHNICAL DATASHEET

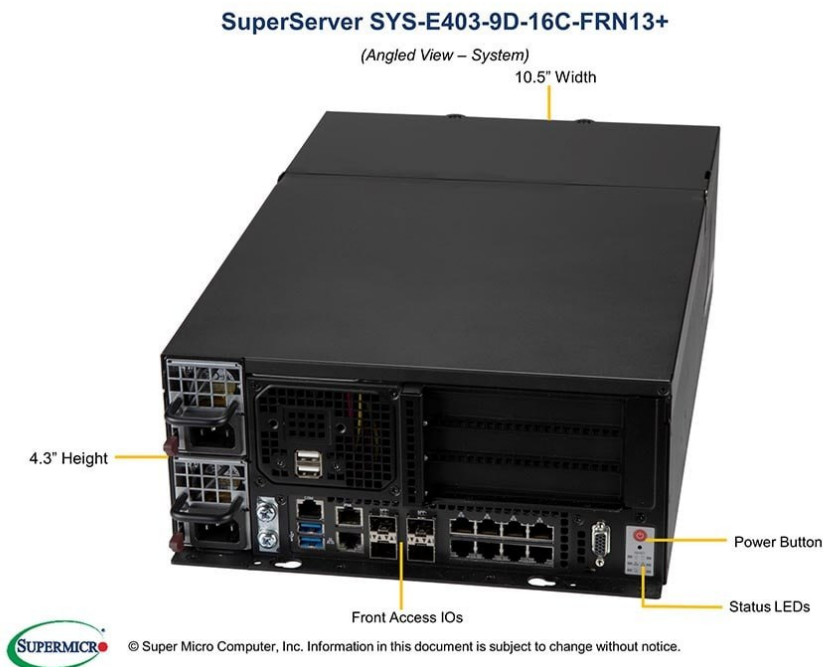
SUPERMICRO • EDGE & EMBEDDED

# Supermicro Server SYS-E403-9D-16C-FRN13

SKU SYS-E403-9D-16C-FRN13

Compact

Supermicro



FORM FACTOR

**Compact**

MAX POWER (BASE)

**306 W**

HEAT OUTPUT

**1,044 BTU/h**

PRICE

**On request**



**REQUEST A QUOTATION ONLINE**

[serverinvest.com/product/sys-e403-9d-16c-frn13](https://serverinvest.com/product/sys-e403-9d-16c-frn13)



## 01 Product overview

The Supermicro SYS-E403-9D-16C-FRN13 is a server built on Intel Xeon D with up to 512 GB of memory in 4 DIMM slots.

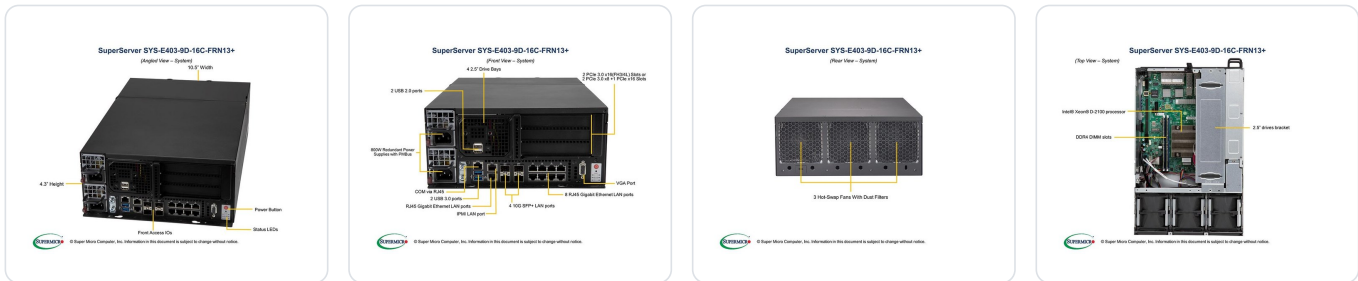
ServerInvest configures every SYS-E403-9D-16C-FRN13 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

### HIGHLIGHTS

- Intel Xeon D
- Up to 512 GB memory · 4 DIMM slots
- 4 Internal 2.5" drive bays
- Power: 750W: 100 - 127Vac
- Networking: 4x 10G SFP+ via SoC

### KEY SPECIFICATIONS

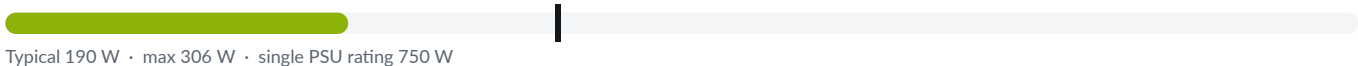
|                    |                            |
|--------------------|----------------------------|
| Form factor        | Compact                    |
| Processor          | Intel Xeon D               |
| Memory             | 4 DIMM slots, up to 512 GB |
| Drive bays         | 4                          |
| Power supply       | 1× 750 W                   |
| Typical power draw | 450 W                      |
| Networking         | 4x 10G SFP+ via SoC        |



## 02 Power & thermal

Calculated for the base configuration

|             |              |              |                    |               |            |
|-------------|--------------|--------------|--------------------|---------------|------------|
| IDLE        | TYPICAL      | MAXIMUM      | HEAT (MAX)         | COOLING       | PSU LOAD   |
| <b>73 W</b> | <b>190 W</b> | <b>306 W</b> | <b>1,044 BTU/h</b> | <b>0.3 kW</b> | <b>41%</b> |



Typical 190 W · max 306 W · single PSU rating 750 W

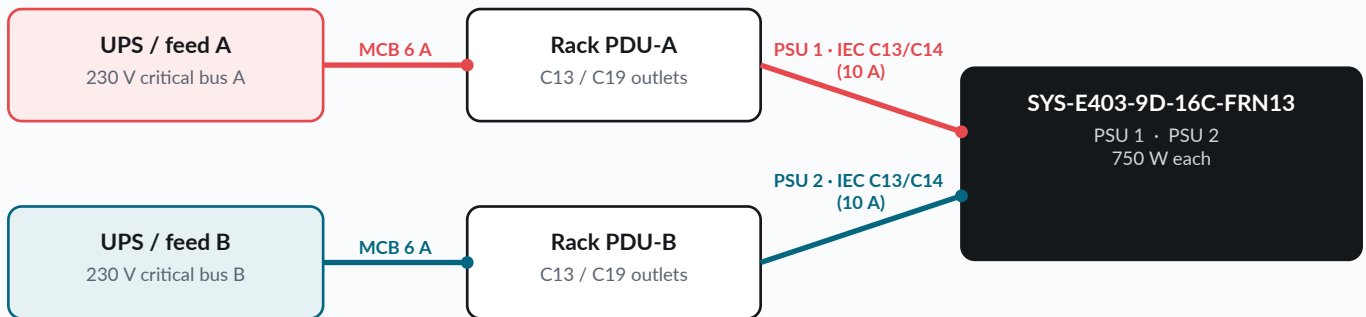
|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Annual IT energy (24/7)          | 1,357 kWh                                    |
| Annual facility energy (PUE 1.5) | 2,036 kWh                                    |
| Annual energy cost               | €271 IT · €407 incl. cooling (at 0.20 €/kWh) |
| CO <sub>2</sub> emissions / year | 0.53 t (grid factor 0.26 kg/kWh)             |
| Power supplies                   | 1× 750 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

|               |                                                         |
|---------------|---------------------------------------------------------|
| CPU           | Intel Xeon processor D-2183IT ,<br>CPU TDP support 100W |
| Cores / Cache | 16 Cores, 32 Threads                                    |

#### SYSTEM MEMORY

|                 |                                                                           |
|-----------------|---------------------------------------------------------------------------|
| Memory Capacity | Up to 512GB DDR4 ECC LRDIMM<br>Up to 256GB DDR4 ECC RDIMM<br>4 DIMM slots |
| Memory Type     | 2666/2400/2133MHz ECC DDR4 L/RDIMM<br>Operating speed up to 2400MHz       |
| DIMM Sizes      | 128GB, 64GB, 32GB, 16GB                                                   |
| Memory Voltage  | 1.2 V                                                                     |

#### ON-BOARD DEVICES

|                     |                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------|
| Chipset             | System on Chip (SoC)                                                                                                         |
| SATA                | SATA3 (6Gbps) ports via SoC controller                                                                                       |
| Network Controllers | 4x 10G SFP+ via SoC<br>8x 1GbE with Intel I350-AM4<br>Single 1GbE with Intel I210                                            |
| IPMI                | Support for Intelligent Platform Management Interface v.2.0<br>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support |
| Video               | VGA via Aspeed AST2500 BMC                                                                                                   |

#### INPUT / OUTPUT

|      |                                         |
|------|-----------------------------------------|
| SATA | 4 SATA3 (6Gbps) ports; RAID 0, 1, 5, 10 |
|------|-----------------------------------------|

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| LAN                  | 9 RJ45 Gigabit Ethernet LAN ports<br>4 10G SFP+ LAN ports<br>1 RJ45 Dedicated IPMI LAN port |
| USB                  | 2 USB 3.0 ports (front)<br>2 USB 2.0 ports (front)                                          |
| Video                | 1 VGA port                                                                                  |
| Serial Port / Header | 1 COM via RJ45                                                                              |

## SYSTEM BIOS

|           |                               |
|-----------|-------------------------------|
| BIOS Type | 128Mb SPI Flash with AMI BIOS |
|-----------|-------------------------------|

## MANAGEMENT

|          |                                                                            |
|----------|----------------------------------------------------------------------------|
| Software | Intel Node Manager<br>IPMI 2.0<br>NMI<br>SUM<br>Watch Dog<br>SuperDoctor 5 |
|----------|----------------------------------------------------------------------------|

## CHASSIS

|             |                     |
|-------------|---------------------|
| Form Factor | Box PC              |
| Model       | CSE-E403iF-000NDBP2 |

## DIMENSIONS AND WEIGHT

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| Height           | 4.62" (117mm)                                                  |
| Width            | 10.5" (267mm)                                                  |
| Depth            | 16" (406mm)                                                    |
| Weight           | Gross Weight: 23 lbs (10.43 kg)<br>Net Weight: 17 lbs (7.7 kg) |
| Available Colors | Black                                                          |

## FRONT PANEL

|         |                                                                                         |
|---------|-----------------------------------------------------------------------------------------|
| Buttons | Power On/Off button<br>System Reset button                                              |
| LEDs    | Power LED<br>Hard drive activity LED<br>Network activity LEDs<br>System Information LED |

## EXPANSION SLOTS

|             |                                                                                 |
|-------------|---------------------------------------------------------------------------------|
| PCI-Express | 2 PCI-E 3.0 x16 (FHFL) slots or<br>2 PCI-E 3.0 x8, 1 PCI-E 3.0 x16 (FHFL) slots |
| M.2         | 1 M.2 M-Key , 2280/22110<br>1 M.2 E-Key , 2230<br>1 M.2 B-Key , 3042            |

## DRIVE BAYS

|          |                            |
|----------|----------------------------|
| Internal | 4 Internal 2.5" drive bays |
|----------|----------------------------|

## SYSTEM COOLING

Fans 3x 80x80mm PWM redundant fans

## POWER SUPPLY

|                                  |                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------|
| Total Output Power               | 750W: 100 - 127Vac<br>800W: 200 - 240Vac<br>800W: 230 - 240Vdc                       |
| Dimension (W x H x L)            | 54.5 x 40.25 x 220 mm                                                                |
| Input                            | 750W: 100-127Vac / 10A<br>800W: 200-240Vac / 5.5A<br>800W: 230-240Vdc / 5.5A         |
| +12V                             | Max: 62.5A /Min: 0.5A (100-127Vac)<br>Max: 66.6A /Min: 0.5A (200-240Vac, 230-240Vdc) |
| +5Vsb                            | Max: 4A /Min: 0A                                                                     |
| Output Type                      | Gold Finger                                                                          |
| Certification                    | Platinum Level                                                                       |
| DC option for: (AC counter-part) | PWS-601D-1R                                                                          |

## OPERATING ENVIRONMENT / COMPLIANCE

|                     |                                                                                                                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RoHS                | RoHS Compliant                                                                                                                                                                                                                                      |
| Environmental Spec. | Operating Temperature:<br>0°C ~ 50°C (32°F ~ 122°F)<br>Non-operating Temperature:<br>-40°C to 70°C (-40°F to 158°F)<br>Operating Relative Humidity:<br>8% to 90% (non-condensing)<br>Non-operating Relative Humidity:<br>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](mailto:office@serverinvest.com)

