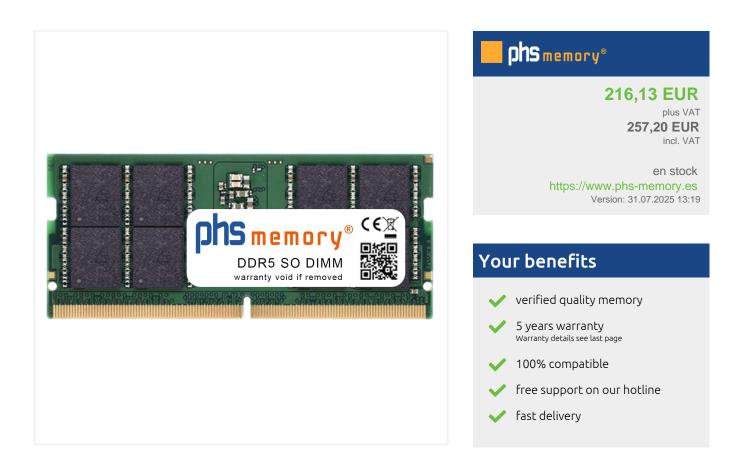
# phs memory®

## 64GB Computer memory DDR5 for Minisforum N5 Pro SO DIMM



#### PHS-memory® - computer memory with 100% quality

- many years of IT competence
- Free support for optimal configuration and product selection
- High availability through professional warehouse management
- Fast delivery in throughout Europe
- Short response times and professional order processing due to full digitalization throughout the entire process with complete traceability
- Incoming goods inspection include checks of the DRAMs, PCBs and the programmed SPDs in order to exclude possible errors (Controlled BOM).
- PHS-memory® brand memories guarantee 100% compatibility to the specified system.
- PHS-memory® memories can be used together with existing memories in the device depends on to the configuration rules of the system.
- The "fallback option" in the SPD of PHS-memory® allows DRAMs with higher clock rates to be operated together with older memory modules with lower clock rates within the system.
- Products with unique serial number for service and warranty
- Pre-sales and after-sales support by technically trained personnel



## Memory Specification



Memory size	64GB		
Memory technology	DDR5		
ECC support	ΝΟ		
JEDEC Norm	PC5-44800S		
Туре	SO DIMM		
Number of pins	262 Pin SO DIMM		
Memory data transfer rate	5600MHz		
Voltage	1,1 Volt		
Speciality	-		
Operating temperature	0° C - 85° C		
Storage temperature	-40° C - +95° C		
RoHS compliant	Yes		
SKU	SP589965		
EAN	4069169628483		

#### overRAMing maximize your RAM



Most systems - including the Minisforum N5 Pro - can be upgraded with more memory than originally specified by the device manufacturer.

Therefore, our memory specialists continuously analyze new memory solutions in selected systems. Due to improved manufacturing technologies, new memories with higher performance and capacity will be tested for stability and functionality. Then the new memory solutions are released for the respective systems. Use the benefits of larger computer

memory capacity with the PHSmemory® overRAMing memory solutions.

https://www.phs-memory.es/-BOR

Note: The module specified in this datasheet is one of several possible configurations available under this part number.

Some details may differ from the specifications described here and the illustration, but have no negative influence on the functionality.



#### System Specifications

The memory is 100% compatible with this sytem:

System manufacturer	Minisforum		
Device type	Storage/NAS		
Device family	Storage/NAS		
Device series	N Serie		
Device name	N5 Pro		
Maximum memory*	128GB / 96GB according to manufacturer		
Number of memory sockets	2		

\* The specifications for the maximum memory upgrade may differ from those of the manufacturer Minisforum. Often the information given in the manual for the maximum memory upgrade is not up to date. New memory technologies, bios updates or newer software versions often allow the use of memory modules with a higher capacity than specified by the manufacturer with the same performance and stability.

Memory modules with our overRAMing-symbol are approved by us for maximum memory expansion.

## Information on memory allocation

#### Information on memory configuration

The following technical specifications should be considered in advance:

- Im Gerät können non ECC or ECC (Error-Correction-Code) RAM-memory installiert werden. Memory with der Description ECC besitzen eine Fehlerkorrektur.
- Non ECC memory modules cannot be used together with ECC memories.
- If a memory expansion is to be made with the already existing RAM memories, it must be checked which memory technology (non ECC / ECC) is already existing in the system.

#### Information on memory installation

- Turn off the system
- Remove the plug of the power supply unit (if connected)
- Remove the battery, according to the user manual of the system
- Always ground yourself before touching electronic components
- Protect the memory module from static voltages:
- Do not touch the gold pins of the memory module
- Only touch the sides of the memory module
- Use a grounding strap and/or ESD glove if possible

General installation instructions are supplied by E-Mail.



#### Further memory options for Minisforum N5 Pro

Size	SKU	Technology	Туре	Number of pins	Brand	Reference no.
8GB	SP589960	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	
16GB	SP589966	DDR5	SO DIMM ECC	262 Pin SO DIMM	PHS-memory®	
16GB	SP589961	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	
24GB	SP589962	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	
32GB	SP589967	DDR5	SO DIMM ECC	262 Pin SO DIMM	PHS-memory®	
32GB	SP589963	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	
48GB	SP589968	DDR5	SO DIMM ECC	262 Pin SO DIMM	PHS-memory®	
48GB	SP589964	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	
64GB	SP589965	DDR5	SO DIMM	262 Pin SO DIMM	PHS-memory®	

#### PHS-memory® warranty

Every PHS-memory® is equipped with a 5-years-warranty of perfect operation. If the RAM module is defective or fails within 5 years of purchase when used properly, you will receive an appropriate RAM module free of charge. If a suitable memory module is no longer available, we will refund the purchase price.

For more information on warranty and service please visit https://www.phs-memory.es/-W5Y



## Contact Information

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All information without guarantee. Technical changes and errors excepted. You can find current price information in our online



shop at https://www.phs-memory.es