

INDUSTRIAL AUTOMATION PRODUCT

6ES7417-4HL04-0AB0

SIMATIC S7-400H CPU 417H Central Processing Unit

Siemens 6ES7417-4HL04-0AB0 is a SIMATIC S7-400H CPU 417H central processing unit with 20 MB work memory. It provides MPI/DP, PROFIBUS DP and two synchronization-module interfaces for redundant S7-400H control.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	SIMATIC S7-400H
Part number	6ES7417-4HL04-0AB0
Document status	Controlled product and system reference

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING NOTE

Install 6ES7417-4HL04-0AB0 only in the documented SIMATIC S7-400H position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and redundant CPU execution and partner synchronization in a SIMATIC S7-400H station before service release.

System Role and Architecture

Siemens 6ES7417-4HL04-0AB0 is a SIMATIC S7-400H CPU 417H central processing unit with 20 MB work memory. It provides MPI/DP, PROFIBUS DP and two synchronization-module interfaces for redundant S7-400H control.

FUNCTION 1
CPU 417H for S7-400H

FUNCTION 2
20 MB work memory

FUNCTION 3
MPI/DP and PROFIBUS DP interfaces

FUNCTION 4
Two synchronization-module interfaces

RELATED APTER POWER PAGES

1 Siemens 6RY1243-0EA00

2 Siemens 6SE7027-2TD84-6HF3

3 Siemens 6RY1803-0AA25-0AA1

4 Siemens 6SE7035-1EJ84-1JC1

5 Siemens 6SE7033-7EG84-1JF1

6 Siemens 6SL3352-6TG38-8AA3

7 Siemens 6SE7041-2WL84-1JC1

8 Siemens 6SL3120-2TE21-8AC0

9 Siemens 6RY1803-1DA04

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	SIMATIC S7-400H
02	Matched SIMATIC S7-400H host or field system
03	Documented power, signal, communication and protective interfaces
04	Approved engineering configuration and acceptance record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	SIMATIC S7-400H
Interface role	redundant CPU execution and partner synchronization in a SIMATIC S7-400H station
Field / power context	documented SIMATIC S7-400H installation
Commissioning evidence	Identity, wiring, configuration, diagnostics and controlled response recorded

INSTALLATION AND CONNECTION CHECKS

1 Confirm the complete 6ES7417-4HL04-0AB0 marking and the documented SIMATIC S7-400H CPU 417H Central Processing Unit execution.

2 Place the machine, controller and affected process in the approved maintenance state.

3 Isolate all hazardous energy and prove the safe state before disconnecting hardware.

4 Record the installed position, every terminal or port, and the active engineering configuration.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Product designation	CPU 417H for SIMATIC S7-400H	Integrated work memory	20 MB
Integrated interfaces	4	Program memory share	10 MB
Interface 1	MPI / PROFIBUS DP	Data memory share	10 MB
Interface 2	PROFIBUS DP	System role	Redundant S7-400H central processing unit
Synchronization interfaces	2, for synchronization modules	Lifecycle note	Discontinued replacement part without a named successor

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8Siemens 6SL3120-2TE21-8AC0

9Siemens 6RY1803-1DA04

ENGINEERING BOUNDARY

Confirm 6ES7417-4HL04-0AB0, its exact SIMATIC S7-400H host, power source, installed position, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

PRE-INSTALLATION CHECKS

- 1

Confirm the complete 6ES7417-4HL04-0AB0 marking and the documented SIMATIC S7-400H CPU 417H Central Processing Unit
- 2

Place the machine, controller and affected process in the approved maintenance state.
- 3

Isolate all hazardous energy and prove the safe state before disconnecting hardware.
- 4

Record the installed position, every terminal or port, and the active engineering configuration.

Applications and Engineering Context

Redundant process control

Executes the approved S7-400H project with a synchronized partner CPU.

High-availability PLC replacement

Restores a documented CPU 417H position without altering the validated architecture.

PROFIBUS plant communication

Coordinates configured DP nodes through the two documented bus interfaces.

H-system commissioning

Verifies partner synchronization, diagnostics and controlled process response.

TECHNICAL NOTE

Install 6ES7417-4HL04-0AB0 only in the documented SIMATIC S7-400H position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and redundant CPU execution and partner synchronization in a SIMATIC S7-400H station before service release.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	6ES7417-4HL04-0AB0 recorded
Host / carrier	SIMATIC S7-400H
Physical interface	Installed terminals, ports and signal paths matched to the as-found record
Configuration	Approved hardware and engineering configuration restored
Functional proof	Controlled test confirms redundant CPU execution and partner synchronization in a SIMATIC S7-400H station

IMPORTANT NOTICE

Confirm 6ES7417-4HL04-0AB0, its exact SIMATIC S7-400H host, power source, installed position, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER

1

Siemens 6RY1243-0EA00

View Siemens 6RY1243-0EA00 page

2

Siemens 6SE7027-2TD84-6HF3

View Siemens 6SE7027-2TD84-6HF3 page

3

Siemens 6RY1803-0AA25-0AA1

View Siemens 6RY1803-0AA25-0AA1 page

4

Siemens 6SE7035-1EJ84-1JC1

View Siemens 6SE7035-1EJ84-1JC1 page

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Siemens 6SE7033-7EG84-1JF1

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Siemens 6SL3352-6TG38-8AA3

View Siemens 6SL3352-6TG38-8AA3 page

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Siemens 6SE7041-2WL84-1JC1

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Siemens 6SL3120-2TE21-8AC0

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Siemens 6RY1803-1DA04

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MANUFACTURER SOURCE RECORD

Siemens SiePortal exact-article record for 6ES7417-4HL04-0AB0 | Official manufacturer evidence verified 28 September 2026

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RECOMMENDATION SCOPE

These links support product navigation and comparison. Technical values in this document are sourced only from the manufacturer record above.