

INDUSTRIAL AUTOMATION PRODUCT

6ES7417-5HT06-0AB0

SIMATIC S7-400H CPU 417-5H PN/DP

Siemens 6ES7417-5HT06-0AB0 is a SIMATIC S7-400H CPU 417-5H PN/DP for S7-400H and S7-400F/FH systems. It provides 32 MB integrated work memory and five interfaces for MPI/DP, PROFIBUS DP, PROFINET and redundant synchronization.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	Siemens SIMATIC S7-400H and S7-400F/FH
Part number	6ES7417-5HT06-0AB0
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 6ES7417-5HT06-0AB0 only in the documented Siemens SIMATIC S7-400H and S7-400F/FH position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and redundant and fail-safe control execution, communications and synchronization in an S7-400H or S7-400F/FH station before service release.

System Role and Architecture

Siemens 6ES7417-5HT06-0AB0 is a SIMATIC S7-400H CPU 417-5H PN/DP for S7-400H and S7-400F/FH systems. It provides 32 MB integrated work memory and five interfaces for MPI/DP, PROFIBUS DP, PROFINET and redundant synchronization.

FUNCTION 1
CPU 417-5H PN/DP for S7-400H

FUNCTION 2
32 MB integrated work memory

FUNCTION 3
MPI/DP, DP and PROFINET interfaces

FUNCTION 4
Two synchronization-module interfaces

RELATED APTER POWER PAGES

1 Siemens 6SL3224-0BE31-1UA0

2 Siemens 6SL3210-1PE31-8AL0

3 Siemens 6SL3310-1GE35-0AA3

4 Siemens C98043-A7042-L1-6

5 Siemens 6SL3246-0BA22-1PA0-V-4-7

6 Siemens C98043-A7005-L1-6RY1704-0AA00

7 Siemens 6SL3210-1PE21-1AL0

8 Siemens 6SL3210-1PE21-8AL0

9 Siemens 6SL3246-0BA22-1FA0

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	Siemens SIMATIC S7-400H and S7-400F/FH
02	Matched Siemens host rack, controller or industrial network
03	Documented power, communication, synchronization and grounding interfaces
04	Approved engineering project, managed configuration and acceptance record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Siemens SIMATIC S7-400H and S7-400F/FH
Interface role	redundant and fail-safe control execution, communications and synchronization in an S7-400H or
Field / power context	documented Siemens industrial control or network cabinet position
Commissioning evidence	Identity, interfaces, configuration, diagnostics and controlled functional response recorded

INSTALLATION AND CONNECTION CHECKS

1 Confirm the exact 6ES7417-5HT06-0AB0 marking and documented SIMATIC S7-400H CPU 417-5H PN/DP execution.

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

3 Isolate power and field interfaces; prove the safe state before disconnecting hardware.

4 Record every port, terminal, module position, configuration file and active diagnostic.

Technical Specifications

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

PARAMETER	VALUE	PARAMETER	VALUE
Product type	CPU 417-5H PN/DP	CiR synchronization time, basic load	60 ms
System compatibility	SIMATIC S7-400H and S7-400F/FH	Power supply	Via SIMATIC system power supply
Hardware functional status	1	Backplane current at 5 V DC, typical	1.6 A
Firmware version	V6.0	Backplane current at 5 V DC, maximum	1.9 A
Integrated interfaces	5	Backplane current at 24 V DC, maximum	150 mA per DP interface
Interface arrangement	1 x MPI/DP, 1 x DP, 1 x PN, 2 x synchronization module	Interface current at 5 V DC, maximum	90 mA per DP interface
Integrated work memory	32 MB	Typical power loss	7.5 W
Program work memory	16 MB	Expandable FEPROM load memory	Up to 64 MB with Flash memory card
Data work memory	16 MB	Integrated RAM load memory	1 MB maximum
Programming package	STEP 7 V5.5 SP2 with HF1 or later	Battery-backed data	All data

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ENGINEERING BOUNDARY

Confirm 6ES7417-5HT06-0AB0, its exact Siemens SIMATIC S7-400H and S7-400F/FH host, power source, installed position, interfaces, firmware or project configuration, diagnostics and controlled acceptance evidence before release.

PRE-INSTALLATION CHECKS

- 1

Confirm the exact 6ES7417-5HT06-0AB0 marking and documented SIMATIC S7-400H CPU 417-5H PN/DP execution.
- 2

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

Isolate power and field interfaces; prove the safe state before disconnecting hardware.
- 4

Record every port, terminal, module position, configuration file and active diagnostic.

Applications and Engineering Context

Redundant process control

Executes the documented S7-400H user program with matched partner-CPU synchronization.

Fail-safe automation station

Supports the approved S7-400F/FH hardware and safety-project architecture.

PROFINET and PROFIBUS integration

Coordinates PN, MPI/DP and DP communications from one redundant CPU.

H-system CPU replacement

Preserves memory card, rack configuration, synchronization paths and controlled restart records.

TECHNICAL NOTE

Install 6ES7417-5HT06-0AB0 only in the documented Siemens SIMATIC S7-400H and S7-400F/FH position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and redundant and fail-safe control execution, communications and synchronization in an S7-400H or S7-400F/FH station before service release.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	6ES7417-5HT06-0AB0 recorded
Host / carrier	Siemens SIMATIC S7-400H and S7-400F/FH
Physical interface	Installed ports, terminals and communications matched to the as-found record
Configuration	Approved Siemens hardware and network configuration restored
Functional proof	Controlled test confirms redundant and fail-safe control execution, communications and synchronization in an S7-400H or S7-400F/FH station

IMPORTANT NOTICE

Confirm 6ES7417-5HT06-0AB0, its exact Siemens SIMATIC S7-400H and S7-400F/FH host, power source, installed position, interfaces, firmware or project 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 6SL3224-0BE31-1UA0

View Siemens 6SL3224-0BE31-1UA0 page

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MANUFACTURER SOURCE RECORD

Siemens Data Sheet 6ES7417-5HT06-0AB0, dated 28 January 2026 | Siemens official exact-article data sheet, 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.