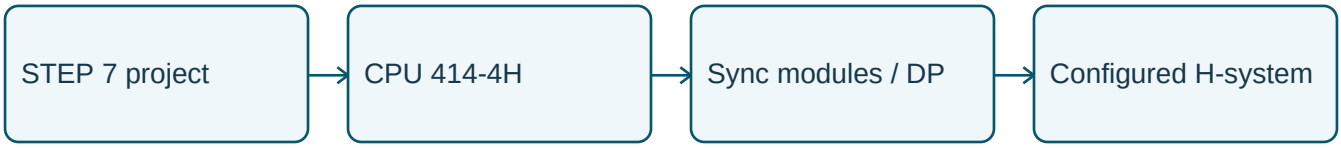
6ES7 414-4HM14-0AB0

01 / System identity and preparation

Siemens 6ES7 414-4HM14-0AB0 is the CPU 414-4H processing unit for S7-400H and S7-400F/FH configurations. Its 2.8 MB working memory is divided equally between program and data, with 1.4 MB assigned to each. The working memory is not expandable. Integrated RAM load memory is 256 KB, and compatible RAM or FEPROM expansion supports up to 64 MB for the loadable application.



Preparation priorities

Paired configuration	Record CPU hardware, firmware and synchronization-module identities on both sides of the H-system.
System relationship	Check the matching rack, system power supply and communication configuration.

Guide boundary

This Apter Power guide organizes preparation and acceptance checks. Apply the manufacturer instructions and approved site procedure for detailed wiring, mounting, configuration and functional testing.

Application boundary

The spaced supplied model identifies Siemens order code 6ES7414-4HM14-0AB0. H-system and safety-system capabilities require the matching hardware, software and approved system configuration.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

02 / Configuration review before service

Paired configuration	Record CPU hardware, firmware and synchronization-module identities on both sides of the H-system.
System relationship	Check the matching rack, system power supply and communication configuration.
Memory and backup	Preserve program, data, memory-card contents and battery backup requirements.
Acceptance	Run the approved diagnostic and redundancy checks after the replacement.

Preserve the full identity

Check the complete CPU marking, hardware status and firmware before replacement.

Validate synchronization

Match synchronization modules and the installed H-system arrangement before enabling redundant operation.

Configured system behavior

The CPU provides an MPI/PROFIBUS DP interface, a separate PROFIBUS DP interface and two connections for synchronization modules. These connections serve different roles: the RS-485 interfaces provide engineering, operator and distributed-I/O communication, while the synchronization connections belong to the configured H-system arrangement. Fault-tolerant operation depends on the complete paired CPU, synchronization and I/O configuration; a single CPU does not by itself establish system redundancy.

Mismatch decision

Resolve a different catalog marking, interface, software requirement or installed configuration before proceeding. Physical similarity alone does not establish an approved replacement.

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03 / Hardware and interface checks

Back up memory

Preserve the project and memory-card contents, and verify the battery-backed data requirements.

Match engineering tools

Use the appropriate STEP 7 version and hardware update for the installed firmware.

Key hardware references

Working memory	2.8 MB total
Program / data memory	1.4 MB / 1.4 MB
Integrated load memory	256 KB RAM
Load-memory expansion	Up to 64 MB RAM or FEPROM

Configuration and service context

The V4.5 technical configuration uses STEP 7 V5.3 SP2 or later with the appropriate hardware update. The CPU receives power from the S7-400 system power supply, draws 1.4 A typically from the 5 V backplane and dissipates approximately 6 W. Battery backup supports retention of the complete working and load memory. During replacement, match the firmware, memory content, synchronization hardware and existing engineering configuration before checking system diagnostics and redundancy operation.

Preserve the connection record

Photograph and label the affected connections before disconnection. Retain the original routing, module positions and identification with the work order, and compare the restored installation against that record.

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04 / Commissioning and diagnostic decisions

Review bus configuration

Retain MPI/DP and DP roles, network addresses and configured process-data lengths.

Test the complete system

Verify CPU diagnostics, communication and the approved redundancy test before releasing the system.

Acceptance checkpoints

Before energization	Check the matching rack, system power supply and communication configuration.
Configuration review	Preserve program, data, memory-card contents and battery backup requirements.
Functional release	Run the approved diagnostic and redundancy checks after the replacement.

What must be checked before replacing 6ES7 414-4HM14-0AB0 in an H-system?

Match firmware, program and data content, memory card, synchronization modules and the installed H-system configuration before performing the system acceptance test.

Abnormal result

If diagnostics, communication or functional response differ from the approved baseline, stop the release and resolve the configuration or installation issue. Do not bypass an interlock or protective function to obtain a passing test.

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05 / Service record and technical references

Lifecycle and support

The manufacturer lifecycle phase is Product Discontinuation. Assess the installed CPU and system configuration when planning service and migration.

Technical basis

Siemens 6ES7414-4HM14-0AB0 Product Data Sheet, 2026-10-05; Safety Engineering in SIMATIC S7, A5E00109529-07.

Applicability

The spaced supplied model identifies Siemens order code 6ES7414-4HM14-0AB0. H-system and safety-system capabilities require the matching hardware, software and approved system configuration.

Related portfolio references

Siemens 6ES7417-5HT06-0AB0

Siemens 6ES7136-6BA00-0CA0

Siemens 6ES7331-7PF11-0AB0

Siemens 6ES7336-4GE00-0AB0

Navigation only. These listings are not confirmed replacements, compatible accessories or included items.

Handover record

Retain the complete fitted marking, hardware/software revision where applicable, connection record and accepted test results. Confirm separate accessories and documents in the quotation.

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