Siemens 6ES7416-3XR05-0AB0

Installation & Commissioning Guide

01 Define the installed-system task

An installed CPU 416-3 configuration combines execution memory, load media and three interface positions; keep all three identities in the service record.

Technical values apply to the complete 6ES7416-3XR05-0AB0 execution. Retain the actual installed configuration and applicable Siemens instructions.

Product type	CPU 416-3
System	SIMATIC S7-400
Work memory	11.2 MB: 5.6 MB code and 5.6 MB data
Integrated load memory	1 MB RAM
Load-memory expansion	Flash or RAM memory card; up to 64 MB

Retain the project and identification record

Keep the complete 6ES7416-3XR05-0AB0 marking, installed configuration and approved application records together. Use the applicable Siemens and machine procedures to plan isolation, replacement and release.

02 Review the signal, power or memory path

Work memory totals 11.2 MB, split into 5.6 MB for program code and 5.6 MB for data. Integrated load memory is 1 MB RAM, expandable with RAM or Flash memory cards up to 64 MB. A load-memory card does not enlarge the integrated work-memory partitions.

The first interface is MPI/DP at up to 12 Mbit/s; the second is PROFIBUS DP and the third accepts a plug-in IFM module. Record the actual interface module and network settings. The reference firmware is V5.3, with STEP 7 V5.3 SP2 or later plus the corresponding hardware update.

Interface 1	MPI/DP; up to 12 Mbit/s
Interface 2	PROFIBUS DP
Interface 3	Plug-in IFM module
Firmware reference	V5.3; match the installed firmware
Engineering software	STEP 7 V5.3 SP2 or higher with hardware update

Check	Compare the installed configuration with the complete offered reference
Record	Retain the supply, interface or memory settings applicable to this item
Accept	Proceed only when the system record and actual hardware agree

03 Preserve configuration during replacement

How is work memory divided in 6ES7416-3XR05-0AB0?

The CPU has 11.2 MB work memory: 5.6 MB for program code and 5.6 MB for data. The integrated work memory is not expandable.

Which load-memory options are available for 6ES7416-3XR05-0AB0?

There is 1 MB integrated RAM load memory. Supported RAM or Flash memory cards expand load memory up to 64 MB.

What are the three interface positions on 6ES7416-3XR05-0AB0?

The first is MPI/DP up to 12 Mbit/s, the second is PROFIBUS DP and the third is a plug-in IFM module position. Verify which optional interface is actually fitted.

Which STEP 7 baseline applies to 6ES7416-3XR05-0AB0?

The reference is STEP 7 V5.3 SP2 or later with the corresponding hardware update. Match the actual installed firmware; the data-sheet reference is V5.3.

Configuration acceptance

Typical bit, word and fixed-point operations take 30 ns; floating-point operations take 90 ns. The CPU supports 2048 S7 timers and 2048 counters. It occupies two slots, draws up to 1.3 A from the 5 V backplane and has typical power loss of 5.5 W. Preserve the project, backup state and installed rack power budget.

04 Commission and resolve diagnostic differences

What processing times are typical for 6ES7416-3XR05-0AB0?

Bit, word and fixed-point operations are typically 30 ns, while floating-point operations are typically 90 ns.

How many S7 timers and counters does 6ES7416-3XR05-0AB0 support?

It supports 2048 S7 timers and 2048 S7 counters. Retentivity settings remain part of the application configuration.

What rack power demand must be considered for 6ES7416-3XR05-0AB0?

The 5 V backplane current is 1.1 A typical and 1.3 A maximum; typical power loss is 5.5 W. Include the attached interface loads in the system assessment.

How many rack slots does 6ES7416-3XR05-0AB0 occupy?

Two slots are required. Check the rack position, adjoining modules and the fitted interface module when preparing a replacement.

Release check

Use the approved machine test to verify the intended function, receiving-system response and diagnostic state. Record the final settings and restore the planned operating configuration before service.

05 Handover and lifecycle planning

6ES7416-3XR05-0AB0: The product is in the manufacturer product-cancellation stage and designated for replacement-part support.

Support and replacement: Confirm current service and replacement guidance with Siemens using the complete marking, hardware revision and installed configuration. Siemens identifies 6ES7416-3XS07-0AB0 as a successor; verify firmware, project and interface requirements before substitution.

Availability: Apter Power supply availability is confirmed separately from manufacturer lifecycle and support status.

Installed-system handover

Retain the full 6ES7416-3XR05-0AB0 identity, hardware and configuration record, application archive and commissioning results. Confirm CPU, memory card, fitted IFM interface and any backup accessories separately.

Explore other Siemens references

Portfolio navigation only; no compatibility or substitution is implied.

Siemens 6ES7315-1AF03-0AB0	View product
Siemens 6ES7307-1KA00-0AA0	View product
Siemens 6ES7 153-2BA82-0XB0	View product

Discuss your complete reference

Siemens 6ES7416-3XR05-0AB0

New, original product

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Technical reference

Siemens 6ES7416-3XR05-0AB0 Data Sheet