

Installation Identity and Scope

Siemens 6ES7416-2XK02-0AB0 is a SIMATIC S7-400 CPU 416-2 DP with firmware V3.1. The official CPU data identifies 1.6 MB of work memory divided equally between code and data and integrated PROFIBUS-DP master/slave capability.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	6ES7416-2XK02-0AB0
Manufacturer	Siemens
Hardware role	S7-400 CPU
System family	SIMATIC S7-400

Controlled engineering copy

Retain the complete 6ES7416-2XK02-0AB0 order number and installed firmware record. Back up the STEP 7 project, memory-card contents, interface configuration and routing data before replacement or recommissioning.

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Pre-Installation Plan

NO.	REQUIRED ACTION
1	Verify the complete 6ES7416-2XK02-0AB0 order number and firmware version.
2	Place the S7-400 station and controlled process in the approved maintenance state.
3	Back up the complete STEP 7 project and current hardware configuration.
4	Record MPI and PROFIBUS-DP addresses, bus parameters and node assignments.
5	Preserve the memory-card type, contents and installed access settings.
6	Confirm software and communication-processor compatibility before replacement.
7	Restore the controlled project and compare diagnostics after startup.
8	Complete I/O, communication and process-function tests before release.

Before Energization

CONTROL	REQUIRED RECORD
Identity	Complete 6ES7416-2XK02-0AB0 marking and hardware role
Connections	Approved power, grounding and protocol interfaces
Configuration	Controlled backup, addressing and protocol files
Test plan	Defined acceptance values and controlled restart authority

Release hold point

Do not disturb the installed device until exact marking, interfaces, companion hardware and configured function are documented.

Wiring, Network and Configuration Checks

CHECK	MODEL-SPECIFIC REQUIREMENT
Firmware version	V3.1
Engineering software	STEP 7 V5.2 or later
Work memory	1.6 MB total
Code work memory	0.8 MB
Data work memory	0.8 MB
Integrated load RAM	256 KB
Memory card capacity	Up to 64 MB Flash or RAM
Markers	16 KB

Configuration boundary

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Expected Technical Values

PARAMETER	VALUE
Clock markers	8
Data blocks	Up to 4095
Maximum DB size	64 KB
Local data	Up to 32 KB; 16 KB default

Commissioning and Acceptance

TEST	ACCEPTANCE CONDITION
Identity	Manufacturer and complete 6ES7416-2XK02-0AB0 marking match the record.
Power	Measured supply agrees with the documented operating requirement.
Interface	Connectors, addressing and network parameters match the approved project.
Configuration	Protocol files, framing and mapped data areas match the controlled backup.
Diagnostics	No unexplained status, counter or communication fault remains.
Functional proof	Controlled bidirectional data transfer completes successfully.
Release	Final values and test results are retained with restart approval.

Questions to Resolve

QUESTION	ENGINEERING ANSWER
What is Siemens 6ES7416-2XK02-0AB0?	6ES7416-2XK02-0AB0 is a SIMATIC S7-400 CPU 416-2 DP.
Which firmware is documented for Siemens 6ES7416-2XK02-0AB0?	The official CPU data identifies firmware V3.1.

Related Products

MODEL	APTER POWER PAGE
Siemens 6ES7416-2FN05-0AB0	View Siemens 6ES7416-2FN05-0AB0
Siemens 6ES7414-5HM06-0AB0	View Siemens 6ES7414-5HM06-0AB0
Siemens 6ES7414-4HM14-0AB0	View Siemens 6ES7414-4HM14-0AB0
Siemens 6ES7414-3FM07-0AB0	View Siemens 6ES7414-3FM07-0AB0

Source, Related Products and Release

MODEL	APTER POWER PAGE
Siemens 6ES7414-3EM07-0AB0	View Siemens 6ES7414-3EM07-0AB0
Siemens 6ES7414-2XG02-0AB0	View Siemens 6ES7414-2XG02-0AB0
Siemens 6ES7410-5HX08-0AB0	View Siemens 6ES7410-5HX08-0AB0
Siemens 6ES7407-0RA02-0AA0	View Siemens 6ES7407-0RA02-0AA0

MANUFACTURER SOURCE RECORDS

1. Siemens SIMATIC S7-400 CPU Data, CPU 416-2 order number 6ES7416-2XK02-0AB0
2. Siemens S7 Routing CPU Overview and compatibility record for 6ES7416-2XK02-0AB0

Controlled Release Summary

RELEASE ITEM	REQUIRED EVIDENCE
Identity	6ES7416-2XK02-0AB0 recorded
Interface	Connections and companion hardware verified
Configuration	Installed values agree with approved record
Functional proof	Controlled test completed without unexplained fault

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