Siemens 6ES7315-1AF03-0AB0

Installation & Commissioning Guide

Siemens 6ES7315-1AF03-0AB0 is a SIMATIC S7-300 CPU 315 with integrated 24 V DC power supply and 48 Kbyte working memory. It executes the user program and coordinates the S7-300 backplane, I/O and communication resources.

PRODUCT ROLE AND VERIFIED FEATURES

Feature 1

Identified as a SIMATIC S7-300 CPU 315.

Feature 2

Provides 48 Kbyte working memory.

Feature 3

Uses an integrated 24 V DC power supply connection.

Feature 4

Coordinates the user program, S7-300 backplane and assigned I/O.

VERIFIED DATA SNAPSHOT

Product family	SIMATIC S7-300
Processor type	CPU 315
Working memory	48 Kbyte
Power supply	Integrated 24 V DC

SYSTEM RELATIONSHIP

Field device → **Product interface** → **System channel** → **Verified response**

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Pre-installation readiness

READINESS GATE

Identity

Compare the complete marking with the approved work order and installed record.

System match

Confirm the receiving channel, mating components and controlled configuration.

Physical condition

Inspect mounting surfaces, connectors, terminals, cable and support hardware.

Work controls

Apply authorized isolation, bypass, access and restoration procedures.

TECHNICAL PROFILE FOR THE WORK

Product family SIMATIC S7-300	**Processor type** CPU 315
Working memory 48 Kbyte	**Power supply** Integrated 24 V DC
Load memory SIMATIC memory card	**Firmware version in Siemens update table** V1.2.1
Module role Central processing unit	

IMPORTANT NOTICE Resolve every unmatched interface, configuration or receiving-system condition before removal or installation.

SOURCE AND WORK CONTROLS

Manufacturer source	Siemens Industry Mall product record and S7-300 storage/firmware tables
Evidence boundary	Technical statements are limited to the identified product or applicable manufacturer family.
Selection control	Use the complete ordering string and verify the installed system before purchase or installation.

Installation sequence

CONTROLLED WORK STEPS

01	Confirm the complete 6ES7315-1AF03-0AB0 article number and CPU 315 designation.
02	Verify the rack, memory card and STEP 7 hardware configuration.
03	Back up the user program, blocks, hardware configuration and operating values.
04	Record the slot, interface wiring, switch state and memory card.
05	Isolate the 24 V DC supply and follow electrostatic-discharge controls.
06	Do not insert or remove the memory card outside the approved CPU-state procedure.
07	Check CPU status, diagnostics and I/O communication after startup.
08	Validate interlocks, outputs and the controlled sequence before release.

CONNECTION RECORD

As found	Photograph and label every connection and installed orientation before removal.
Mechanical	Record mounting position, support, clearance and connector engagement.
Electrical	Record polarity, common, shield, channel assignment and cable route.
Configuration	Preserve approved settings, scaling, alarm logic and acceptance limits.
As left	Record the final physical condition and any controlled deviation.

Field device → **Product interface** → **System channel** → **Verified response**

WORK HOLD POINTS

Before removal	Identity, position, wiring, orientation and controlled settings recorded.
Before connection	Mating interfaces, condition and routing reviewed.
Before power-up	Mechanical work, wiring, shielding and configuration independently checked.
Before release	Static value, dynamic response and protection behavior accepted.

Commissioning and functional proof

COMMISSIONING SEQUENCE

Initial state

Observe status at power-up and check for unexpected fault or alarm indication.

Static value

Verify the expected bias, gap, loop, contact or channel value for the application.

Dynamic response

Apply the approved machine or test stimulus and confirm response and scaling.

Protection path

Verify the configured alarm, relay, data or receiving-system behavior.

APPLICATION-SPECIFIC EVIDENCE

Machine automation

Execute sequenced logic and interlocks in a modular S7-300 station.

Process skids

Coordinate signal modules and controlled outputs from the central rack.

Legacy S7-300 maintenance

Restore the documented CPU 315 execution while preserving the STEP 7 project.

Controlled restart

Return the station to its verified hardware and software state after replacement.

ACCEPTANCE RECORD

Identity	Complete marking and final installed position recorded.
Physical inspection	Mounting, connectors, terminals and routing checked.
Channel status	Expected status and configured measurement confirmed.
Functional test	Required output or protection response demonstrated.
Restoration	Bypasses removed and operating state approved.

COMMISSIONING QUESTIONS

What processor type is Siemens 6ES7315-1AF03-0AB0?	It is a SIMATIC S7-300 CPU 315.
How much working memory is documented for Siemens 6ES7315-1AF03-0AB0?	The CPU is identified with 48 Kbyte working memory.

Release record and technical references

CLOSEOUT QUESTIONS

Which supply connection is integrated in Siemens 6ES7315-1AF03-0AB0?	The CPU uses an integrated 24 V DC power-supply connection.
Which load-memory medium is used with Siemens 6ES7315-1AF03-0AB0?	The documented storage concept uses a SIMATIC memory card.
Which firmware version appears for Siemens 6ES7315-1AF03-0AB0 in the Siemens update table?	The article is listed with firmware version V1.2.1.
What should be backed up before replacing Siemens 6ES7315-1AF03-0AB0?	Back up the user program, blocks, hardware configuration and operating values.
What completes commissioning of Siemens 6ES7315-1AF03-0AB0?	Verify CPU diagnostics, I/O communication, interlocks and the controlled sequence.
Which installation records should accompany Siemens 6ES7315-1AF03-0AB0?	Record the complete article number, cpu module position, connections, controlled settings and functional test result.

RELATED MODELS FOR INSTALLATION PLANNING

Siemens 6ES7331-1KF02-0AB0	Installation-planning reference. Review the complete ordering string before selection.
Siemens 6ES7392-1AJ00-0AA0	Installation-planning reference. Compare the required interface and system position.
Siemens 6ES7153-2BA02-0XB0	Installation-planning reference. Confirm the execution independently for the intended task.

MANUFACTURER SOURCE AND FINAL CONTROL

Manufacturer source	Siemens Industry Mall product record and S7-300 storage/firmware tables
Evidence boundary	Technical statements are limited to the identified product or applicable manufacturer family.
Selection control	Use the complete ordering string and verify the installed system before purchase or installation.

IMPORTANT NOTICE Release the equipment only after the responsible site authority accepts the recorded result.

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