6ES7412-2XJ05-0AB0

01 / Product identity and control context

CPU Module

Siemens 6ES7412-2XJ05-0AB0 is a SIMATIC S7-400 CPU 412-2 with 256 KB code memory, 256 KB data memory and integrated MPI/DP and PROFIBUS DP interfaces.

Key characteristics

Product type	CPU 412-2
Product series	SIMATIC S7-400
Work memory	256 KB code + 256 KB data
Integrated interfaces	MPI/DP and PROFIBUS DP

Functional relationship



Execution identity

Compare 6ES7412-2XJ05-0AB0 and fitted firmware with the STEP 7 hardware configuration, memory card and project backup.

Configuration boundary

CPU 412-2 data applies to 6ES7412-2XJ05-0AB0 with the specified firmware; network limits depend on the selected interface and configuration.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

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02 / Technical characteristics

Hardware and functional data

Manufacturer	Siemens
Product series	SIMATIC S7-400
CPU designation	CPU 412-2
Work memory	256 KB code + 256 KB data
Integrated load memory	512 KB RAM
Expandable load memory	FLASH or RAM card, up to 64 MB
First interface	MPI / PROFIBUS DP; up to 12 Mbit/s
Second interface	PROFIBUS DP; up to 12 Mbit/s

Interfaces and operating conditions

DP slaves, first / second interface	32 / 64 maximum; address limits apply
Total I/O address area	4 KB inputs / 4 KB outputs
5 V backplane current	0.9 A typical; 1.1 A maximum
Typical power loss	4.5 W
Typical bit-operation time	75 ns
Diagnostic buffer	400 entries maximum; configurable
Reference firmware	V5.3

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03 / Application and integration contexts

Rack-based automation

Run the S7-400 program with the installed local and expansion I/O. Check code memory, data memory and station configuration before replacing the CPU.

Distributed PROFIBUS control

Use the two DP-capable interfaces with their respective slave-count and address limits. Preserve bus termination, station addressing and data mapping.

Rack and power

Check S7-400 rack compatibility, backplane loading, power-supply backup battery and the installed expansion configuration.

MPI operator communication

Use the first interface for supported programming and operator communication. Match baud rate, connection resources and the selected MPI or DP mode.

Station diagnostics

Read the configurable diagnostic buffer and test variables during fault investigation. Retain the approved project and backup information before hardware changes.

Network and memory

Preserve separate MPI/DP and DP addressing, slave assignments, process-image allocation and code/data memory requirements.

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04 / Installation and release decisions

Preserve the complete CPU identity

Compare the complete 6ES7412-2XJ05-0AB0 marking and fitted firmware with the project. Do not substitute another CPU 412 execution solely by its family name.

Back up program and data

Preserve the approved STEP 7 project, memory-card identity and current data. Battery-backed retention depends on the installed backup arrangement.

Check backplane supply loading

Allow for typical 0.9 A and maximum 1.1 A consumption from the 5 V backplane. Connected MPI/DP devices also load their interface supply.

Respect separate DP limits

The first DP interface supports up to 32 slaves and the second up to 64. Check their different address capacities and per-slave data limits.

Match configured communication hardware

The CPU has MPI/DP and DP interfaces. Do not assume integrated Ethernet or PROFINET; check any separately fitted communication processor.

Validate before operational release

Review diagnostic events, program startup, retained data and all affected I/O. Resolve discrepancies before restarting the process.

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05 / Lifecycle, evidence and related portfolio

Lifecycle status

The Siemens product lifecycle designation is Prod. Cancellation, and the product is offered through spare-parts support. Confirm current service and replacement arrangements with Siemens for the complete order number.

Supply boundary

Apter Power availability and dispatch are confirmed separately from the manufacturer lifecycle phase.

Technical basis

Siemens S7-400 Automation System, CPU Specifications, A5E00850746-08, 04/2009.

Related product references

Siemens 6ES7421-7BH01-0AB0

Siemens 6ES7414-1XG02-0AB0

Siemens 6ES7417-4XL04-0AB0

Navigation only; no substitute or accessory compatibility is implied.

Offered-unit verification

Compare the complete label, connectors, mounting arrangement and applicable hardware/software revision. Confirm included components and accompanying documents in the quotation.

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