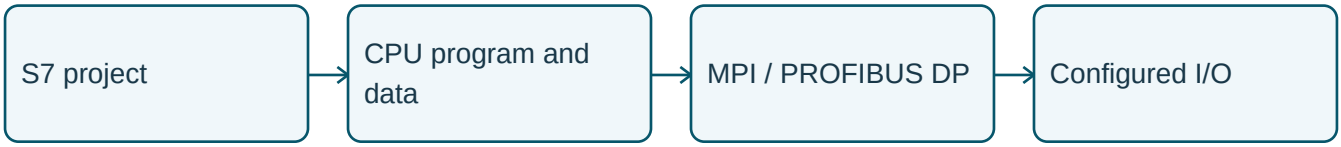
6ES7412-2XG00-0AB0

01 / System identity and preparation

Siemens 6ES7412-2XG00-0AB0 provides separate 72 KB program and 72 KB data areas in its 144 KB working memory. This working memory is fixed, while the integrated 256 KB RAM load memory can be supplemented by a compatible RAM or FLASH memory card up to 64 MB. The separation allows the engineer to distinguish the executable program and live data requirements from the capacity used to store the loadable project.



Preparation priorities

CPU and firmware	Match the full CPU order code and firmware with the hardware configuration.
Rack relationship	Verify the rack power supply, module allocation and configured I/O addresses.

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 numerical CPU data describes the 6ES7412-2XG00-0AB0 configuration with firmware V3.1. Match installed firmware, memory card and STEP 7 project before replacement.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

02 / Configuration review before service

CPU and firmware	Match the full CPU order code and firmware with the hardware configuration.
Rack relationship	Verify the rack power supply, module allocation and configured I/O addresses.
Communication	Record MPI and DP addresses, transmission rates, station data and termination.
Program recovery	Preserve the project, memory-card contents and backup settings before replacement.

Confirm the CPU order code

Match 6ES7412-2XG00-0AB0, firmware and rack configuration before replacing the CPU.

Preserve project and memory

Back up the STEP 7 project and identify the installed memory card before changing hardware.

Configured system behavior

The processor has two isolated RS-485 interfaces. The first supports MPI or PROFIBUS DP and the second supports PROFIBUS DP. Both can operate at up to 12 Mbit/s, with master or slave operation determined by the project configuration. In master operation, the first interface supports up to 32 DP slaves and the second up to 64. The complete CPU may be configured as a DP slave only once, even though it has multiple interfaces.

Mismatch decision

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

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

03 / Hardware and interface checks

Check the bus roles

Retain the correct MPI/DP and DP configurations; the CPU may be configured as a DP slave only once.

Review retention

Check the backup battery and startup settings before relying on retained process data.

Key hardware references

Program memory	72 KB
Data memory	72 KB
Working-memory expansion	Not expandable
Integrated load memory	256 KB RAM

Configuration and service context

The CPU supports STEP 7 programming, configurable process images and diagnostics for commissioning and fault investigation. The technical configuration with firmware V3.1 uses STEP 7 V5.2 or later, 256 S7 timers and 256 S7 counters. A battery-backed system preserves working and load memory; retentive behavior must be reviewed together with the installed backup arrangement and application startup settings.

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.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

04 / Commissioning and diagnostic decisions

Maintain power isolation

Follow the S7-400 installation procedure and plant isolation requirements when removing or inserting hardware.

Validate commissioning

Check diagnostics, station communication and controlled outputs before returning the application to service.

Acceptance checkpoints

Before energization	Verify the rack power supply, module allocation and configured I/O addresses.
Configuration review	Record MPI and DP addresses, transmission rates, station data and termination.
Functional release	Preserve the project, memory-card contents and backup settings before replacement.

How does 6ES7412-2XG00-0AB0 retain memory during a power interruption?

Working and load memory are retained with the appropriate backup battery. Check the installed backup arrangement and configured retention settings.

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.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

05 / Service record and technical references

Lifecycle and support

The manufacturer lifecycle phase is End of Product Lifecycle. Replacement planning must include the installed S7-400 configuration and application migration requirements.

Technical basis

Siemens S7-400 CPU Data, A5E00165963-01; Siemens CPU 412-2 product information.

Applicability

The numerical CPU data describes the 6ES7412-2XG00-0AB0 configuration with firmware V3.1. Match installed firmware, memory card and STEP 7 project before replacement.

Related portfolio references

Siemens 6ES7421-7BH01-0AB0

Siemens 6ES7414-1XG02-0AB0

Siemens 6ES7417-4XL04-0AB0

Siemens 6ES7416-2XK02-0AB0

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.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.