Siemens 6ES7417-4XL04-0AB0

01 Project backup

Back up the commissioned CPU

Save the hardware configuration, program blocks and required application data using the approved engineering workflow. Record the exact CPU identity and installed interface modules so the replacement can be checked against the commissioned project.

Secure the controlled equipment

Establish the intended output states and process response before stopping or removing the CPU. Coordinate with operations and account for drives, remote stations and other controllers that depend on its communications.

Code work memory	10 MB
Data work memory	10 MB

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02 Memory and networks

Inventory memory resources

Review code, data and load-memory use separately. Preserve the memory-card identity and retention requirements; sufficient work memory does not ensure that the correct project or retained data is available for restart.

Distinguish the integrated ports

Label MPI/DP and the second DP connection independently. Record network addresses, baud rates and master/slave roles, then compare them with the hardware configuration before restoring the bus connections.

Bit operation time	0.03 µs
Floating-point operation time	0.09 µs

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03 Rack restoration

Identify optional DP modules

Record each IF 964-DP slot assignment and its associated network. Keep the physical slot and project mapping aligned; moving a network cable to another available interface can change the addressed I/O arrangement.

Restore the rack configuration

Compare CPU position, rack type and any multiprocessor arrangement with the saved project. Resolve configuration differences before downloading or starting the application, including communication resources assigned to other modules.

Timers / counters	2048 / 2048
Marker memory	16 KB

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04 I/O validation

Review startup and retention

Check startup mode, retentive timers/counters and application data initialization. Confirm how the process is expected to behave after power restoration or a CPU restart rather than assuming the prior operating values will be retained.

Validate the I/O image

Compare configured addresses and process-image partitions with the actual remote and local I/O. Test representative signals and controlled outputs through the application to detect mapping errors before normal operation.

Integrated interfaces	1 MPI/DP and 1 DP
Interface-module slots	2, for compatible IF 964-DP modules

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05 CPU release

Inspect communication diagnostics

Review the diagnostic buffer and network status after controlled startup. Confirm programming-device, operator-panel and controller connections without exceeding the configured resource allocation.

Release the verified project

Record the final program identity, interface assignments and functional-test results. Remove temporary forcing or commissioning overrides and obtain the required operating acceptance before returning the CPU to unattended control.

Technical basis: Siemens S7-400 CPU Specifications, A5E00267840-03.

Related product navigation

- Siemens 6ES7215-1HG40-0XB0
- Siemens 6ES7231-4HA30-0XB0

These are related references, not confirmed substitutes or an automatically approved assembly.