Siemens 6ES7305-1BA80-0AA0

01 Verify DC source and feeder protection

Identify the DC distribution source, feeder protection and polarity at the supply input. List the continuous and startup demands of connected loads, separating electronics power from any unrelated field circuit. Confirm that the actual source range and transient environment suit this DC-input supply before reconnection.

A source labeled with a nominal voltage still needs comparison with its actual operating range and polarity.

Acceptance observation	The feeder and load assessment describe the installed circuit, not an AC mains assumption.
Evidence to retain	Connection map and approved baseline
Release boundary	Use the applicable SIMATIC S7-300 instructions and the approved application acceptance criteria.

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02 Separate continuous and starting loads

Isolate the input and affected output circuits using the approved procedure. Inspect supply and return conductors, distribution protection and terminal condition. Preserve the circuit layout so a replacement does not accidentally parallel supplies or combine previously separate control-power branches.

Do not introduce a parallel arrangement simply to mask an overload or voltage-drop problem in the original circuit.

Acceptance observation	The installation retains its intended isolation and distribution arrangement.
Evidence to retain	Isolation and supply assessment
Release boundary	Use the applicable SIMATIC S7-300 instructions and the approved application acceptance criteria.

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03 Restore polarity and output distribution

Restore input polarity and the regulated output distribution. Measure output at the supply and at the consuming module under the intended load. Compare both readings during startup as well as steady operation; the supply indicator is only one part of the verification.

A healthy source reading with a low consumer reading directs investigation toward distribution drop or connection resistance.

Acceptance observation	Consumers receive adequate voltage through the actual wiring during both operating conditions.
Evidence to retain	Restored interface and configuration
Release boundary	Use the applicable SIMATIC S7-300 instructions and the approved application acceptance criteria.

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04 Measure startup and interruption response

Assess starting pulses separately from continuous demand and ambient conditions. Where a permitted higher-load condition is used, verify all associated source and thermal restrictions rather than treating a short-duration current response as an unrestricted rating. Review the loads if repeated starts cause voltage collapse.

Repeated overload recovery is not proof of acceptable operation; identify the demand or wiring condition that causes it.

Acceptance observation	The circuit remains within its continuous and transient operating envelope.
Evidence to retain	Measured response and diagnostic state
Release boundary	Use the applicable SIMATIC S7-300 instructions and the approved application acceptance criteria.

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05 Document loaded voltage and protection state

Observe the connected control system through its authorized restart sequence and confirm no consumer resets unexpectedly. Remove temporary meters and restore covers before normal service. Retain the source range, load schedule and consumer voltage observations so future additions can be assessed against an established baseline.

A circuit that passes only without its normal load has not completed acceptance.

Technical basis: Siemens PS305 data sheet, 6ES7305-1BA80-0AA0.

Related product navigation

Siemens 6ES7317-2EK14-0AB0

Siemens 6ES7214-1BG40-0XB0

Siemens 6ES7134-4GB11-0AB0

Related products for separate application assessment; verify the platform and interface. No interchangeability is implied.