Siemens 7VE5120-4CA10-0A/FF

Paralleling Device

A legacy Siemens SIPROTEC 7VE51-family paralleling device. Siemens communication guidance identifies 7VE51 among units without IEC 60870-5-103 communication availability in that configuration.

Job objective

Replace, install or verify the exact module without changing unrelated wiring, configuration, dimensions, weight or other stored product data.

Safe-work boundary

Identify Match the complete model and every suffix or secondary code.	**Isolate** Apply the plant-approved electrical and process isolation procedure.
Preserve Back up configuration and photograph all connections.	**Control** Use ESD protection and revision-controlled documentation.

Required evidence before work

Nameplate photo; slot/rack record; connector map; project backup where applicable; fault history; approved acceptance procedure.

Verification focus

- Siemens
- 7VE5120-4CA10-0A/FF
- SIPROTEC 7VE51 family
- Exact /FF suffix retained

Readiness checklist

Exact identity	Siemens 7VE5120-4CA10-0A/FF matches the work order and physical unit
System position	Rack, slot and functional assignment are recorded
Configuration	Parameters, firmware or project data are backed up when applicable
Connections	Every cable, terminal, jumper and shield is labeled
Condition	Connector, board and packaging condition are inspected
Test plan	Expected states and acceptance evidence are agreed

Interface preparation

Voltage references	Verify source selection, phasing and isolation from station drawings
Close permissive	Prove the complete breaker-closing path under test control
Blocking inputs	Reconcile interlocks and external inhibit signals
Remote communication	Assign a dedicated star-coupler output where the cited architecture is used
Baud rate	Set according to the installed unit in that communication arrangement
Auxiliary supply	Confirm the nameplate rating before applying power

Interface acceptance record

- Voltage references: Verify source selection, phasing and isolation from station drawings
- Close permissive: Prove the complete breaker-closing path under test control
- Blocking inputs: Reconcile interlocks and external inhibit signals
- Remote communication: Assign a dedicated star-coupler output where the cited architecture is used

03 / INSTALLATION SEQUENCE

Controlled replacement workflow

1	Confirm isolation and absence of hazardous energy
2	Compare old and replacement identities and revisions
3	Photograph and label all connections
4	Remove the existing module using ESD-safe handling
5	Inspect slot, connector, grounding and cooling path
6	Install the exact replacement without forcing connectors
7	Restore cables, jumpers and settings from the controlled record
8	Perform a final visual and continuity check before energization

STOP POINT

Do not energize if the model, slot, connector orientation, grounding, jumper state or documented system assignment is unresolved.

Configuration control

- Function: Paralleling device
- IEC 60870-5-103: No
- Remote integration: Active mini star-coupler output
- Order suffix: /FF

Staged return to service

Stage	Action	Acceptance
Stage 1	Visual inspection and isolation release	Expected controlled result
Stage 2	Apply control power under observation	Expected controlled result
Stage 3	Confirm module recognition or status	Expected controlled result
Stage 4	Verify communication and affected signal paths	Expected controlled result
Stage 5	Exercise the documented function	Expected controlled result
Stage 6	Archive measured results and as-left configuration	Expected controlled result

Product-specific acceptance focus

1

Do not assume IEC 60870-5-103 communication is available on 7VE51.

2

Where an active mini star-coupler is used, allocate a dedicated output to the relay.

3

Set the communication rate for the installed device rather than a nearby model.

4

Perform a supervised closing-permissive test and archive the results.

Release evidence

- Do not assume IEC 60870-5-103 communication is available on 7VE51.
- Where an active mini star-coupler is used, allocate a dedicated output to the relay.
- Set the communication rate for the installed device rather than a nearby model.
- Perform a supervised closing-permissive test and archive the results.

Fault isolation and final record

1	Unexpected state: stop and capture evidence
2	Recheck identity, power, slot and connectors
3	Compare configuration and revision records
4	Test surrounding system before condemning the module
5	Restore a safe state and document the outcome

Apter Power handover record

Model identity	Keep the complete Siemens model code and every suffix in purchasing, installation and acceptance records.
Verification boundary	Confirm the physical nameplate, installed position and revision-controlled project documents before field work.
Apter Power support	Use the contact details and Apter Power website links in this document for product and sourcing support.

Related Apter Power products	Exact product page
Siemens 6DD1681-0AE2	View Siemens 6DD1681-0AE2
Siemens 6DD1681-0AG2	View Siemens 6DD1681-0AG2
Siemens 6ES5928-3UB21	View Siemens 6ES5928-3UB21
Siemens 6ES5734-1BD20	View Siemens 6ES5734-1BD20

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Source and identity trace

- Exact identity: Siemens 7VE5120-4CA10-0A/FF
- Siemens SIPROTEC 4 Catalog, Edition No. 8, communication section: 7VE51 integration using an active mini star-coupler
- Siemens SIPROTEC 5 7VE85 Manual: product-family designation as paralleling devices