Siemens 6SL3120-2TE13-0AA3 SINAMICS S120 Double Motor Module

IDENTITY, COMMERCIAL FACTS AND SPECIFICATION

PRODUCT ROLE

Siemens 6SL3120-2TE13-0AA3 is a SINAMICS S120 booksize double Motor Module with two 3 A motor outputs and internal air cooling. Its dual-axis current, DC-link, 24 V electronics and cooling ratings are documented in the Siemens GH2 booksize manual; installation must follow the actual AA3 revision and cabinet design.

OFFERED PRODUCT

Manufacturer part number
6SL3120-2TE13-0AA3

Shipping
Swift global dispatch

Condition
New, original product

Shipping size (est.)
5cm x 26.8cm x 41.8cm

Country of Origin
Germany

Ship from
Xiamen, Fujian, China

PUBLISHED TECHNICAL SPECIFICATIONS

Manufacturer	Siemens
Product Category	Servo Drives
Spare Part Number	6SL3120-2TE13-0AA3
Weight	4.65 kg
Tariff Code	8537101190
Drive family	SINAMICS S120
Module arrangement	Double Motor Module, booksize; two 3 A motor outputs
Cooling	Internal fan; 29.6 cubic metres per hour
DC-link range	510-750 V DC
Electronics supply	24 V DC; 20.4-28.8 V permitted
Electronics current	1.0 A at 24 V
Rated current	2 x 3 A
Base-load current	2 x 2.6 A
S6 current, 40% duty	2 x 3.5 A
Peak current	2 x 6 A
Rated motor power	1.6 kW at 600 V DC, 4 kHz
Total power loss	94 W including electronics
Efficiency at 4 kHz	0.97
DC-link capacitance	110 microfarads
DC-link busbar capacity	100 A
24 V busbar capacity	20 A
Pulse frequency	4 kHz without derating; 16 kHz with derating
Ambient without derating	Up to 40 C
Ambient with derating	Up to 55 C, subject to Siemens curves
Overvoltage trip	820 V DC +/- 2%, per GH2 03/2006
Undervoltage trip	380 V DC +/- 2%, per GH2 03/2006
Original manual family	6SL3120-2TE13-0AAx; supplied suffix AA3
Shipping package	5cm x 26.8cm x 41.8cm; 4.65kg

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BUYER INFORMATION AND SERVICE CONTEXT

OVERVIEW

Siemens 6SL3120-2TE13-0AA3 is a booksize SINAMICS S120 double Motor Module with two independently assigned 3 A motor channels supplied from the common DC link.
Module type: Double Motor Module, 2 x 3 A
Electronics supply: 24 V DC
Cooling: Internal fan; booksize construction
The Siemens GH2 equipment-manual family table for 6SL3120-2TE13-0AAx lists 2 x 3 A rated current, 2 x 2.6 A base-load current, 2 x 3.5 A S6 current at 40% duty and 2 x 6 A peak current. Assess each installed axis separately rather than treating these as one combined motor output.

The family DC-link range is 510-750 V DC. The 24 V electronics supply permits 20.4-28.8 V and draws 1.0 A. Rated power is 1.6 kW at a 600 V link and 4 kHz; the published total power loss is 94 W. Check the shared line module, busbars and both motor circuits against the cabinet drawings.

The internal fan requires 29.6 cubic metres per hour of air. GH2 gives a 40 C ambient limit without derating and 55 C with derating. Confirm the exact AA3 revision, cooling route, pulse-frequency derating and approved machine settings before commissioning.
Controller platform reference: Siemens SINAMICS S120 booksize drive system. Keep both axis assignments and the full order code in the replacement record.

APPLICATIONS / COMPATIBILITY

System fit: 6SL3120-2TE13-0AA3 belongs to a Siemens SINAMICS S120 booksize lineup and supplies two separately controlled motor outputs from the common DC link.

Application boundary: Match the exact AA3 module, both axis assignments, control version and machine design before substitution.

Dual-axis motor control
Use the two 3 A outputs for separately assigned machine axes. Confirm the motor labels, feedback mapping and current limits of each channel.

Shared DC-link assembly
Coordinate both channels with the line module, DC-link busbars and 24 V electronics supply. Validate common loading in simultaneous operation.

Cabinet thermal design
Use the 94 W loss and 29.6 cubic metres per hour fan requirement to assess the installed enclosure and airflow path.

Service replacement
Record the full AA3 marking and both wiring paths before removal, then check the restored parameters and each axis in the approved commissioning sequence.

LIFECYCLE STATUS

6SL3120-2TE13-0AA3: A current Siemens manufacturing or support phase for this full order code has not been established from the reviewed manufacturer sources. Confirm lifecycle and service options with Siemens for the exact AA3 marking.

Installed system: Record both axis assignments and the approved machine project. A later replacement must be checked for firmware, safety, line-up and motor compatibility.

Supply: Apter Power availability and dispatch are confirmed at enquiry; they do not establish Siemens lifecycle phase.

PRODUCT PRECAUTIONS

Prepare 6SL3120-2TE13-0AA3 as a dual-axis, high-energy S120 Motor Module. Coordinate isolation, both motor outputs, cabinet cooling and project verification before commissioning.

Isolate and discharge the DC link
Follow Siemens and site isolation procedures. Verify discharge before touching any power or busbar connection.

Protect both motor circuits
Identify the two motor outputs separately and photograph wiring, protective earth and cable routes before disconnecting.

Check 24 V electronics supply
Measure the busbar supply under load and confirm it stays in the permitted range; do not infer readiness from DC-link voltage alone.

Confirm internal fan airflow
Leave inlet and exhaust clear and assess enclosure heat for simultaneous loading of both axes.

Apply duty and temperature derating
Review continuous, S6, peak and switching-frequency limits for each channel at the installed ambient temperature.

Restore machine configuration
Validate feedback assignment, safety settings, parameters and fault-free operation one axis at a time.

DOWNLOADS

An applicable original manufacturer technical reference or an Apter Power technical reference is listed in Downloads, followed by the Apter Power engineering technical data PDF. The View PDF control opens this complete product information dossier.

AVAILABLE UNIT DETAILS

Product identity: 6SL3120-2TE13-0AA3 is a two-output SINAMICS S120 Motor Module. The Siemens GH2 table uses family 6SL3120-2TE13-0AAx; confirm this supplied AA3 revision in the installed cabinet.

Shipping: User-supplied package 5cm x 26.8cm x 41.8cm, 4.65kg. These are not a statement of the module drawing dimensions. Country of origin: Germany. Condition: New, original product.

Installation: Verify both motor outputs, shared DC link, 24 V busbar, fan path, protective earth and parameter backup before replacement.

ALTERNATIVE NAMES

SINAMICS S120 6SL3120-2TE13-0AA3
S120 booksize double Motor Module 2 x 3 A

TECHNICAL NOTES

Application: 6SL3120-2TE13-0AA3 is a dual-axis motor module in a Siemens S120 booksize drive lineup. Check both channel assignments and line-up documentation before replacement.

Ratings: GH2 03/2006 gives 2 x 3 A continuous, 2 x 3.5 A S6 and 2 x 6 A peak for 6SL3120-2TE13-0AAx. Apply revision-specific derating and installation instructions.

Source: Siemens SINAMICS S120 Equipment Manual for Booksize Power Units GH2, 03/2006.

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ENGINEERING FAQ AND ORDERING CHECKS

ENGINEERING QUESTIONS

Q01 How should 6SL3120-2TE13-0AA3 be matched to an existing dual-axis SINAMICS S120 lineup?

Compare full label, two motor outputs, DC-link/24 V busbar arrangement, DRIVE-CLiQ wiring and machine project. Obtain approval for the actual revision before substitution.

Q02 What does a one-axis trip on 6SL3120-2TE13-0AA3 suggest during diagnosis?

Review the affected motor, power cable, feedback and axis parameters first; the shared module and DC link should then be assessed against the other channel.

Q03 How should simultaneous duty be evaluated for 6SL3120-2TE13-0AA3?

Check each output independently against continuous, S6 and peak current, and assess common cooling and DC-link loading with both axes active.

Q04 What must be checked when the pulse frequency of 6SL3120-2TE13-0AA3 is raised?

Apply Siemens derating data to both channels and verify cabinet heat removal. A higher switching rate cannot be assumed to preserve the 4 kHz current rating.

Q05 How can an undervoltage fault on 6SL3120-2TE13-0AA3 be separated from a motor-side fault?

Trend DC-link and 24 V busbar voltage during the event, then review line-module readiness, terminal continuity and fault history before testing motor wiring.

Q06 What cooling checks matter before installing 6SL3120-2TE13-0AA3?

Confirm internal fan operation, unobstructed intake/exhaust, cabinet temperature and heat removal for the full drive lineup.

Q07 How should a 24 V electronics fault on 6SL3120-2TE13-0AA3 be investigated?

Measure the supply at the module under load, review busbar continuity and permitted voltage, and check shared consumers before replacing the module.

Q08 Which evidence is useful when requesting a replacement for 6SL3120-2TE13-0AA3?

Provide complete AA3 marking, both motor labels, parameter backup, connector/cabinet photos, fault history and commissioning tests.

WHAT HAPPENS AFTER YOU ENQUIRE / ORDERING VERIFICATION

Review your reference

Share the complete 6SL3120-2TE13-0AA3 nameplate and installed SINAMICS configuration for an identity check.

Match the complete marking

Include 6SL3120-2TE13-0AA3 and any visible hardware revision or assembly number on the enquiry and quotation.

Confirm the offer

We confirm the offered double motor module marking, included items and quantity in the written quotation.

Check the offered item before ordering

Request available label and connector photographs. Have maintenance compare the offered reference with the installed double Motor Module and applicable Siemens drawings before ordering.

Arrange dispatch

After quotation approval, we confirm protective packing, dispatch timing and shipment details for the agreed module quantity.

Technical enquiry

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