Siemens 6SL3000-0KH14-0AA0

01 Precharge architecture

Identify the diode-based infeed

Confirm the Basic Line Module frame and precharge architecture before inspecting the resistor assembly. Keep this resistor-based arrangement distinct from a thyristor-controlled precharge circuit that uses another operating principle.

Isolate line and DC-link energy

Follow the drive isolation and discharge procedure before touching the resistor or contactors. Verify the safe electrical state and account for every connected DC-link source and possible backfeed path.

Nominal resistance	4.0 Ω
Resistance tolerance	±10%

6SL3000-0KH14-0AA0

02 Resistance paths

Count the installed resistor paths

Record whether each phase uses one resistor or two in parallel. Compare all three phases and retain the designed arrangement; a missing parallel element changes the charging duty and phase balance.

Check resistance with the circuit isolated

Use the appropriate disconnected-component test method and compare the result with 4.0 ohms ±10%. Account for parallel paths before interpreting a measured resistance as the value of one resistor.

Pulse-load energy	18000 W·s
Associated line-voltage range	500–690 V, three phase

6SL3000-0KH14-0AA0

03 Thermal and capacity

Inspect the thermal condition

Look for damage, discoloration or compromised mounting around the resistor assembly. Investigate repeated failed precharge attempts and cooling conditions rather than replacing a damaged resistor without addressing its loading history.

Review the capacitance budget

Compare the connected DC-link capacitance with the permitted arrangement for the Basic Line Module. Include changes to the drive line-up that may have occurred since the original precharge design was commissioned.

Associated infeed architecture	Diode-based Basic Line Module, frame GD
Resistor quantity per phase	1, or 2 in parallel according to design

6SL3000-0KH14-0AA0

04 Sequence and protection

Trace contactor sequence wiring

Check the prescribed precharge and bypass control connections to the Basic Line Module. Confirm that the switching devices follow the internal sequence and that the required instantaneous release arrangement is retained.

Restore protection and connections

Use the correct conductor, terminal and protective-device arrangement for the complete circuit. Inspect all phase paths and mechanical supports before energization, keeping the resistor pulse-energy limit distinct from continuous-load ratings.

Total resistor quantity	3 or 6 for the specified three-phase circuit
Precharge-contactor control	Basic Line Module X9:5,6

6SL3000-0KH14-0AA0

05 Charging acceptance

Observe a controlled precharge

Run the approved commissioning sequence and verify that the link charges before the bypass path takes over. Investigate abnormal timing, repeated retries or excessive heating before enabling normal drive operation.

Release the charging circuit

Record resistor values, quantity per phase, capacitance assessment and sequence-test results. Return the infeed to service only after the complete precharge and bypass arrangement operates as designed.

Technical basis: Siemens SINAMICS Engineering Manual, February 2020.

Related product navigation

- Siemens 6ES7321-1BL00-0AA0
- Siemens 6ES7332-8TF01-0AB0

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