# Siemens 6ES7953-8LL31-0AA0

## 01 Product function and selected configuration

### Exact product role

Siemens 6ES7953-8LL31-0AA0 retains the program and configuration that a compatible SIMATIC CPU uses at start-up, providing a removable 2 MB nonvolatile memory medium.

### Key characteristics

**01**
Provides 2 MB of program-memory capacity.

**02**
Uses 3.3 V Nflash memory technology.

**03**
Supports compatible SIMATIC S7-300 and C7 systems.

**04**
Can serve supported ET 200 CPU configurations.

### Technical specification summary

| Technical item | Specification |
|---|---|
| Memory family | SIMATIC S7 Micro Memory Card |
| Memory technology | Nflash |
| Operating interface | 3.3 V |
| Program-memory capacity | 2 MB |
| Supported controller family | SIMATIC S7-300 |
| Supported compact system | SIMATIC C7 |
| Supported distributed CPU family | Compatible ET 200 CPUs |
| Retention type | Nonvolatile removable program memory |

### Important notice

Create a verified backup before removal, then confirm card recognition, CPU start-up and the loaded program version after installation.

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## 02 Technical data in context

### Configured values

| Parameter | Value or condition |
|---|---|
| Memory family | SIMATIC S7 Micro Memory Card |
| Memory technology | Nflash |
| Operating interface | 3.3 V |
| Program-memory capacity | 2 MB |
| Supported controller family | SIMATIC S7-300 |
| Supported compact system | SIMATIC C7 |

### How to use the data

The card contents are machine-specific. Two cards with the same capacity are not interchangeable unless their project, CPU support and controlled revision also match. Treat the memory card and its stored project as separate acceptance items. Physical recognition does not prove that the correct application or system data has been loaded.

### Interface map

| Interface | Function | Verification point |
|---|---|---|
| Memory family | SIMATIC S7 Micro Memory Card | Confirm the installed memory family agrees with this exact configuration. |
| Memory technology | Nflash | Confirm the installed memory technology agrees with this exact configuration. |
| Operating interface | 3.3 V | Confirm the installed operating interface agrees with this exact configuration. |
| Program-memory capacity | 2 MB | Confirm the installed program-memory capacity agrees with this exact configuration. |

# Siemens 6ES7953-8LL31-0AA0

## 03 Applications, precautions and test logic

### Common applications

**S7-300 program storage**
Retain the approved CPU program and system data.

**C7 configuration media**
Provide removable nonvolatile memory for a compatible compact system.

**ET 200 CPU start-up**
Supply the required project to a supported distributed CPU.

**Controlled spare preparation**
Store a verified machine-specific backup on an identified card.

### Commissioning logic

| | |
|---|---|
| **01** | Confirm Siemens 6ES7953-8LL31-0AA0. |
| **02** | Verify the applicable supply or isolated wiring condition. |
| **03** | Restore the approved project, module pairing or terminal assignment. |
| **04** | Apply a controlled input, command or communication change. |

### Product precautions

**01**
Create and verify a complete backup before removing the installed card.

**02**
Record the CPU type, firmware and project revision associated with the card.

**03**
Remove or insert the card only under the approved CPU service condition.

**04**
Protect the contacts from contamination, static discharge and mechanical damage.

### Controlled release

Protect both the Nflash medium and the machine-specific project stored on Siemens 6ES7953-8LL31-0AA0.

# Siemens 6ES7953-8LL31-0AA0

## 04 Exact-model questions

### Questions 1–4

**How much program memory does Siemens 6ES7953-8LL31-0AA0 provide?**
It provides 2 MB of nonvolatile program-memory capacity.

**Which memory technology is used by Siemens 6ES7953-8LL31-0AA0?**
The card uses 3.3 V Nflash technology for compatible SIMATIC CPU interfaces.

**Which controller families accept Siemens 6ES7953-8LL31-0AA0?**
It is specified for supported SIMATIC S7-300, C7 and ET 200 CPU applications; the exact CPU release must still be checked.

**Can an empty Siemens 6ES7953-8LL31-0AA0 start the machine automatically?**
No. The card must contain the approved program and hardware configuration required by the intended CPU.

### Diagnostic guide

| Observed condition | Investigation |
| --- | --- |
| No expected response | Trace the source, connection and configured destination before replacing hardware. |
| Wrong value or state | Compare the exact technical selection, channel identity and retained project data. |
| Intermittent behavior | Inspect seating, terminal security, signal reference and environmental condition. |

### Question boundary

The questions are written for this full model string and its stated technical role.

# Siemens 6ES7953-8LL31-0AA0

## 05 Acceptance and related products

### Functional acceptance

| Test | Action | Expected result |
| --- | --- | --- |
| Fault response | Introduce only the approved diagnostic or interruption test. | The configured status and safe response are visible. |
| Release | Remove test states and compare the final condition with the baseline. | Normal operation is stable and recorded. |

### Related Siemens products

**Siemens 6ES5451-4UA13**

**Siemens 6ES5431-7LA11**

**Siemens 6ES5430-4UA13**

**Siemens 6ES5314-3UA11**

### Questions 5–8

**Why should Siemens 6ES7953-8LL31-0AA0 be backed up before replacement?**
The card may hold the only controlled copy of the CPU program, system data and project-specific start-up information.

**Can another 2 MB card replace Siemens 6ES7953-8LL31-0AA0 without checking its contents?**
No. Matching capacity does not establish the correct project, CPU compatibility or revision; validate both the medium and its stored data.

**What should be compared after copying Siemens 6ES7953-8LL31-0AA0?**
Compare the program blocks, system data, hardware configuration and project revision with the controlled engineering backup.

**How is Siemens 6ES7953-8LL31-0AA0 accepted in a CPU?**
Confirm card recognition, CPU start-up mode, diagnostic state, program version, I/O configuration and a controlled functional response before release.

### Final criterion

Release the product only after the physical path, logical configuration and diagnostic response agree with the approved machine record.