

INDUSTRIAL AUTOMATION PRODUCT

6ES7317-2AJ10-0AB0

SIMATIC S7-300 CPU 317-2 DP

central program execution plus MPI and PROFIBUS DP data exchange

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	SIMATIC S7-300 automation system
Part number	6ES7317-2AJ10-0AB0
Country	Germany
HS code	8537101190

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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Technical Specifications

Technical values below are limited to the named Siemens product record.

PARAMETER	VALUE
Complete model	6ES7317-2AJ10-0AB0
CPU designation	CPU 317-2 DP
Hardware version	01
Firmware version	V2.6
Programming package	STEP 7 V5.4 SP2 or higher
Integrated work memory	512 kbyte
Retentive data-block memory, max.	256 kbyte
Plug-in load memory	SIMATIC Micro Memory Card
MMC capacity, max.	8 Mbyte
MMC data retention, min.	10 years

PARAMETER	VALUE
Bit-operation time, min.	0.05 us
Word-operation time, min.	0.2 us
Fixed-point operation time, min.	0.2 us
Floating-point operation time, min.	1.0 us
S7 counters	512
I/O process image	256 bytes input / 256 bytes output
First interface	MPI/PROFIBUS DP, 12 Mbit/s
Second interface	PROFIBUS DP master/slave
Racks, max.	4
Modules per rack, max.	8

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	SIMATIC S7-300 rack
Companion hardware	SIMATIC Micro Memory Card
Field connection	PROFIBUS DP field stations
Primary system function	Executes S7-300 control logic
Controlled acceptance duty	Distributed PROFIBUS DP machine control

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System Role and Architecture

central program execution plus MPI and PROFIBUS DP data exchange

FUNCTION 1
Executes S7-300 control logic

FUNCTION 2
Coordinates MPI and PROFIBUS DP communication

FUNCTION 3
Stores project data on a SIMATIC Micro Memory Card

FUNCTION 4
Operates as a PROFIBUS DP master or slave

Matched system components

- SIMATIC S7-300 rack
- SIMATIC Micro Memory Card
- PROFIBUS DP field stations
- STEP 7 engineering project

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	SIMATIC S7-300 rack
Companion hardware	SIMATIC Micro Memory Card
Field connection	PROFIBUS DP field stations
Primary system function	Executes S7-300 control logic
Controlled acceptance duty	Distributed PROFIBUS DP machine control

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Applications and Engineering Context

Distributed PROFIBUS DP machine control

Executes S7-300 control logic

S7-300 multi-rack automation

Coordinates MPI and PROFIBUS DP communication

MPI-connected engineering and HMI access

Stores project data on a SIMATIC Micro Memory Card

CPU 317-2 DP installed-base replacement

Operates as a PROFIBUS DP master or slave

TECHNICAL NOTE

Install 6ES7317-2AJ10-0AB0 in the documented S7-300 rack with its required Micro Memory Card fitted, then restore the recorded MPI and PROFIBUS DP configuration. After power-up, review CPU diagnostics and run controlled communication and I/O checks before release.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	6ES7317-2AJ10-0AB0 / 6ES7317-2AJ10-0AB0 recorded
Physical interface	SIMATIC S7-300 rack
Companion check	SIMATIC Micro Memory Card
Functional proof	Executes S7-300 control logic
Application test	Distributed PROFIBUS DP machine control

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Engineering Precautions

1

Confirm the complete 6ES7317-2AJ10-0AB0 order number and hardware version before replacement.

2

Back up the STEP 7 hardware configuration and user program before removing the CPU.

3

Isolate the 24 V DC supply and place controlled equipment in a safe maintenance state.

4

Use ESD controls and protect the S7-300 backplane and interface connectors.

5

Preserve MPI and PROFIBUS station addresses, bus parameters and termination settings.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
6GK1561-2AA00	PROFIBUS communications adapter	View 6GK1561-2AA00 page
6ES7193-4JA00-0AA0	SIMATIC terminal module	View 6ES7193-4JA00-0AA0 page
6ED1052-1MD00-0BA5	LOGO! logic module	View 6ED1052-1MD00-0BA5 page
6ES7153-2AA02-0XB0	SIMATIC ET 200M interface	View 6ES7153-2AA02-0XB0 page
6EP1333-4BA00	SITOP power supply	View 6EP1333-4BA00 page
6ES7332-5HF00-0AB0	SIMATIC analog output	View 6ES7332-5HF00-0AB0 page
6ES7234-4HE32-0XB0	SIMATIC analog I/O module	View 6ES7234-4HE32-0XB0 page
6AV6545-0DB10-0AX0	SIMATIC operator panel	View 6AV6545-0DB10-0AX0 page

MANUFACTURER SOURCE RECORD

Siemens CPU 31xC and CPU 31x Technical Specifications

A5E00105475-12

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