

6ES7317-2EK13-0AB0

SIMATIC S7-300 CPU 317-2 PN/DP

central program execution with PROFINET, MPI and PROFIBUS DP communication

PRODUCT SNAPSHOT

BRAND

Siemens

FAMILY

SIMATIC S7-300 automation system

PART

6ES7317-2EK13-0AB0

ORIGIN / HS

Germany / 8537101190

APTER POWER SALES TEAM

WHATSAPP / PHONE

+86 180 3023 5313

EMAIL

sales13@apterpower.com

WEBSITE

www.apterpower.com



PRODUCT OVERVIEW

central program execution with PROFINET, MPI and PROFIBUS DP communication

1

Executes S7-300 automation programs

2

Exchanges cyclic PROFINET I/O data

3

Coordinates MPI and PROFIBUS DP stations

4

Retains program and data through the Micro Memory Card

SYSTEM COMPONENTS

SIMATIC S7-300 rack

SIMATIC Micro Memory Card

PROFINET I/O devices

MPI/PROFIBUS DP stations

TECHNICAL NOTE

Supply 6ES7317-2EK13-0AB0 from the documented 24 V DC circuit and restore its STEP 7 MPI, PROFIBUS DP and PROFINET configuration. Verify link states, CPU diagnostics and controlled network communication before returning the system to service.

TECHNICAL DATA

PARAMETER	VALUE
Complete model	6ES7317-2EK13-0AB0
CPU designation	CPU 317-2 PN/DP
Hardware version	01
Firmware version	V2.6
Programming package	STEP 7 V5.4 SP2
Rated supply voltage	24 V DC
Permissible supply range	20.4 to 28.8 V DC
External supply protection	2 A min.
Rated current consumption	650 mA
No-load current, typ.	100 mA
Inrush current, typ.	2.5 A
I _{2t}	1 A2s
Power loss, typ.	3.5 W
Integrated work memory	1 Mbyte

PARAMETER	VALUE
Plug-in load memory	SIMATIC Micro Memory Card
MMC capacity, max.	8 Mbyte
MMC data retention, min.	10 years
Bit-operation time, typ.	0.05 us
Word-operation time, typ.	0.2 us
Fixed-point operation time, typ.	0.2 us
Floating-point operation time, typ.	1 us
Total blocks	2048
First interface	MPI/PROFIBUS DP, 12 Mbit/s
Second interface	Ethernet PROFINET
Integrated digital inputs	0
Integrated digital outputs	0
Integrated analog inputs	0
Integrated analog outputs	0

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
6ES7590-1AB60-0AA0	SIMATIC front connector	View 6ES7590-1AB60-0AA0 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

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

PROFINET distributed I/O control

Executes S7-300 automation programs

Mixed PROFINET and PROFIBUS automation

Exchanges cyclic PROFINET I/O data

S7-300 multi-rack machine control

Coordinates MPI and PROFIBUS DP stations

CPU 317-2 PN/DP installed-base migration

Retains program and data through the Micro Memory Card

PRODUCT PRECAUTIONS

- 1 Confirm 6ES7317-2EK13-0AB0, hardware version and firmware before changing the controller.
- 2 Archive the STEP 7 project, IP configuration and station names before replacement.
- 3 Isolate the 24 V DC supply and place all controlled processes in a safe state.
- 4 Apply ESD controls and protect the backplane, MPI/DP and Ethernet connectors.
- 5 Preserve PROFIBUS addresses, termination and the complete PROFINET topology record.
- 6 Install the specified Micro Memory Card and restore only the approved project configuration.
- 7 Verify PROFINET device names, IP parameters and cyclic I/O diagnostics after startup.
- 8 Test communications, I/O updates and process response before automatic operation.

ENGINEER FAQ

Q1 Does 6ES7317-2EK13-0AB0 match SIMATIC S7-300 rack in a PROFINET distributed I/O control installation?

Verify the complete 6ES7317-2EK13-0AB0 marking, the documented SIMATIC S7-300 automation system position and the installed SIMATIC S7-300 rack before fitting the assembly.

Q2 How should 6ES7317-2EK13-0AB0 be wired when it must executes s7-300 automation programs?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 6ES7317-2EK13-0AB0; then continuity-test the affected path.

Q3 Which SIMATIC S7-300 automation system records should be captured before removing 6ES7317-2EK13-0AB0?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 6ES7317-2EK13-0AB0 before disconnection.

Q4 What controlled test confirms that 6ES7317-2EK13-0AB0 can exchanges cyclic profinet i/o data?

Apply the approved field or simulated stimulus, observe the SIMATIC S7-300 automation system indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which SIMATIC Micro Memory Card condition should be checked when 6ES7317-2EK13-0AB0 reports an abnormal state?

Check the SIMATIC Micro Memory Card supply, seating and connection first, then compare channel diagnostics with the recorded 6ES7317-2EK13-0AB0 baseline.

Q6 Can 6ES7317-2EK13-0AB0 be moved directly into Mixed PROFINET and PROFIBUS automation without validating MPI/PROFIBUS DP stations?

No. Confirm the MPI/PROFIBUS DP stations, revision, connection scheme and SIMATIC S7-300 automation system configuration before transferring 6ES7317-2EK13-0AB0 to that duty.

Q7 What maintenance evidence is required after 6ES7317-2EK13-0AB0 is used for S7-300 multi-rack machine control?

Retain the nameplate record, corrective action, final diagnostics and a controlled s7-300 multi-rack machine control functional-test result for 6ES7317-2EK13-0AB0.

Q8 How should 6ES7317-2EK13-0AB0 be returned to service in CPU 317-2 PN/DP installed-base migration?

Restore power under control, verify coordinates mpi and profibus dp stations, exercise the intended signal path and release 6ES7317-2EK13-0AB0 only after the SIMATIC S7-300 automation system remains in its approved operating state.

SOURCE Siemens CPU 31xC and CPU 31x Technical Specifications | A5E00105475-12

+86 180 3023 5313 | sales13@apterpower.com | www.apterpower.com