Siemens 6ES7317-2EK14-0AB0 SIMATIC S7-300 CPU 317-2 PN/DP



Siemens 6ES7317-2EK14-0AB0 is the SIMATIC S7-300 CPU 317-2 PN/DP. The CPU 317-2 PN/DP provides 1 MB of work memory for larger S7-300 control programs. Its PROFINET switch supports Ethernet field networks, and the combined MPI/DP port provides a separate serial network connection for the configured station.

Technical Specifications

Product Identity	
Manufacturer	Siemens AG
Complete order number	6ES7317-2EK14-0AB0
Product family	SIMATIC S7-300
CPU designation	CPU 317-2 PN/DP
Data-sheet revision baseline	Hardware 01 / firmware V3.2
Housing (W × H × D)	40 × 125 × 130 mm
Approximate weight	340 g
Functional Configuration	
Communications	Combined MPI/DP and PROFINET Ethernet with a two-port switch
Signal arrangement	Modular signal I/O
Engineering software	STEP 7 V5.5 or later
Performance & Power	
Integrated work memory	1 MB
Rated supply	24 V DC
Permissible supply range	20.4–28.8 V DC
Rated current	750 mA
Typical no-load current	150 mA
Typical inrush current	4 A
Typical power loss	4.65 W
Typical bit operation	0.025 µs
Typical floating-point operation	0.16 µs
Environment	
Horizontal mounting	0 to 60 °C
Vertical mounting	0 to 40 °C

Celine | unity@mvme.cn | +86-18020776786

Compatibility & Selection Guide

Engineering baseline. Configure the exact CPU 317-2 PN/DP hardware entry with STEP 7 V5.5 or later. Project sizing. Use the 1 MB work-memory limit and the selected hardware configuration to size the application. Local field wiring terminates on the installed signal modules.

Wiring & Installation Reference

CPU supply (24 V DC), MPI / PROFIBUS DP (Combined RS-485), PROFINET (2 × RJ45 ports), Local field I/O (Signal modules). The CPU expects 20.4–28.8 V DC. The Siemens data sheet specifies external supply-line protection of at least 2 A. Its typical inrush current is 4 A. Terminate field signal wiring at the installed signal modules. Match module positions and addresses to the STEP 7 project.

Frequently Asked Questions

How large a Micro Memory Card can 6ES7317-2EK14-0AB0 use?

It accepts a SIMATIC Micro Memory Card up to 8 MB as load memory.

How much retentive data can 6ES7317-2EK14-0AB0 preserve on a power interruption?

The maximum retentive data area is 256 KB. Allocate the values that must survive a power interruption within that limit.

How many diagnostic events can 6ES7317-2EK14-0AB0 retain for fault finding?

The diagnostic buffer has up to 500 entries, with the last 100 entries retained after power loss.

How long does the real-time clock of 6ES7317-2EK14-0AB0 keep time without power?

Clock backup time is six weeks at an ambient temperature of 40 °C.

How many S7-300 racks can 6ES7317-2EK14-0AB0 address in one local assembly?

The configuration supports up to four racks in total, including the central rack.

What block-count limit should a project migration to 6ES7317-2EK14-0AB0 allow for?

The CPU supports up to 2,048 DBs, FCs and FBs combined. The selected memory card can reduce the number that can actually be loaded.

How many connections can be allocated to programming devices on 6ES7317-2EK14-0AB0?

The configurable allocation for PG communication is 1 to 31 connections.

Which startup organization block can 6ES7317-2EK14-0AB0 execute?

Startup logic runs in OB 100. The CPU supports one startup organization block.

Source: Siemens exact-order datasheet. Selected manufacturer page follows.

Celine | unity@mvme.cn | +86-18020776786

SIEMENS

Data sheet 6ES7317-2EK14-0AB0

SIMATIC S7-300 CPU 317-2 PN/DP, CENTRAL PROCESSING UNIT WITH 1 MB WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S, 2. INTERFACE ETHERNET PROFINET, WITH 2 PORT SWITCH, MICRO MEMORY CARD NECESSARY



General information	
Hardware product version	01
Firmware version	V3.2
Engineering with	
• Programming package	STEP 7 V5.5 or higher
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	2 A min.
Mains buffering	
• Mains/voltage failure stored energy time	5 ms
• Repeat rate, min.	1 s
Input current	
Current consumption (rated value)	750 mA
Current consumption (in no-load operation), typ.	150 mA

Subject to change without notice
© Copyright Siemens