Siemens 6ES7315-2EH14-0AB0 SIMATIC S7-300 CPU 315-2 PN/DP



Siemens 6ES7315-2EH14-0AB0 is the SIMATIC S7-300 CPU 315-2 PN/DP. The CPU 315-2 PN/DP executes a modular S7-300 station's control program and supports PROFINET through a two-port Ethernet switch. The combined MPI/DP interface provides a separate connection for the serial network configured in the project.

Technical Specifications

Product Identity	
Manufacturer	Siemens AG
Complete order number	6ES7315-2EH14-0AB0
Product family	SIMATIC S7-300
CPU designation	CPU 315-2 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	384 KB
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	0.05 µs
Typical floating-point operation	0.45 µs
Environment	
Horizontal mounting	0 to 60 °C
Vertical mounting	0 to 40 °C

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Compatibility & Selection Guide

Engineering baseline. Configure the exact CPU 315-2 PN/DP hardware entry with STEP 7 V5.5 or later. Choice of network. PROFINET Ethernet and the configurable MPI/DP connection serve different field networks. Retain the device assignments for each network when configuring the station.

Wiring & Installation Reference

CPU supply (24 V DC), MPI / PROFIBUS DP (Combined RS-485), PROFINET (2 × RJ45 ports), Local field I/O (Signal modules). Use the 20.4–28.8 V DC operating supply range for the CPU. Separate S7-300 signal modules carry the field wiring.

Frequently Asked Questions

How large a Micro Memory Card can 6ES7315-2EH14-0AB0 use?

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

How much retentive data can 6ES7315-2EH14-0AB0 preserve on a power interruption?

The maximum retentive data area is 128 KB. Allocate the values that must survive a power interruption within that limit.

How many diagnostic events can 6ES7315-2EH14-0AB0 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 6ES7315-2EH14-0AB0 keep time without power?

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

How many S7-300 racks can 6ES7315-2EH14-0AB0 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 6ES7315-2EH14-0AB0 allow for?

The CPU supports up to 1,024 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 6ES7315-2EH14-0AB0?

The configurable allocation for PG communication is 1 to 15 connections.

Which startup organization block can 6ES7315-2EH14-0AB0 execute?

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

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

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Data sheet 6ES7315-2EH14-0AB0

SIMATIC S7-300 CPU 315-2 PN/DP, CENTRAL PROCESSING UNIT WITH 384 KBYTE 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

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