

SIEMENS PLC SIMATIC S7-1500 CPU 1514SP-2 PN 6ES7514-2DN03-0AB0 CENTRAL PROCESSING UNIT WITH WORK

Our Product Introduction

Basic Information

- Place of Origin: Germany
- Brand Name: SIEMENS
- Certification: CE
- Model Number: PLC SIMATIC S7-1500 CPU 1514SP-2 PN 6ES7514-2DN03-0AB0
- Minimum Order Quantity: 1
- Price: USD
- Packaging Details: 15,10 x 15,40 x 4,60
- Delivery Time: 10-12Days
- Payment Terms: L/C, T/T
- Supply Ability: 100



Product Specification

- Operating System: SIMATIC S7-1500 Software Controller
- Number Of Analog Inputs: 4
- Number Of Digital Outputs: 8
- Number Of Digital Inputs: 8
- Operating Temperature: 0-60°C
- Number Of Analog Outputs: 2
- Power Supply: 24 V DC
- Cpu Type: S7-1512C
- Memory: 2 MB
- Number Of Communication Interfaces: 2
- Dimensions: 130 X 125 X 120 Mm

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Product Description

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Product Introduction:

The SIEMENS PLC SIMATIC S7-1500 CPU 1514-2 PN 6ES7514-2DN03-0AB0 is a central processing unit (CPU) specifically designed for industrial automation applications. It is part of the Siemens SIMATIC S7-1500 series, known for its advanced functionality, high performance, and reliability.

Product Information and Specifications:

- Model: CPU 1514-2 PN 6ES7514-2DN03-0AB0

The CPU 1514-2 PN is equipped with a powerful processor that ensures rapid and efficient execution of control programs. It supports multiple programming languages, including ladder logic, function blocks, and structured text, providing flexibility and ease of use for complex control tasks.

Regarding memory capacity, the CPU 1514-2 PN offers ample storage space for both program and data. While specific details were not provided in the query, typical configurations of the CPU include program memory ranging from 500 KB to 1.5 MB and data memory ranging from 500 KB to 1 MB. This memory capacity allows users to store their control programs and necessary data structures for the PLC's operation.

Designed to operate in demanding industrial environments, the CPU 1514-2 PN delivers reliable and precise control for applications such as manufacturing, process control, and machine automation. It supports a wide range of communication interfaces, including PROFINET, enabling seamless integration with other devices and systems within the automation network.

The CPU 1514-2 PN includes an onboard PROFINET interface, simplifying network connections and facilitating communication with other devices in the automation system. Additionally, it supports distributed I/O, allowing for flexible and scalable system architectures.

Programming and configuration of the CPU 1514-2 PN is typically done using Siemens' TIA Portal (Totally Integrated Automation Portal) software. The TIA Portal provides a comprehensive engineering environment for efficient programming, simulation, and diagnostics, ensuring easy development and maintenance of automation projects.

Product Attributes:

- Model: CPU 1514-2 PN 6ES7514-2DN03-0AB0
- Processor: Powerful processor for rapid and efficient control program execution
- Programming Languages: Supports ladder logic, function blocks, and structured text
- Memory Capacity: Ample storage space for program and data
- Communication Interfaces: Supports PROFINET
- Onboard PROFINET Interface: Simplifies network connections and device communication
- Distributed I/O Support: Enables flexible and scalable system architectures
- Engineering Software: Programmed and configured using Siemens' TIA Portal
- Suitable for: Manufacturing, process control, and machine automation applications

In summary, the SIEMENS PLC SIMATIC S7-1500 CPU 1514-2 PN 6ES7514-2DN03-0AB0 is a reliable CPU with advanced features, sufficient memory capacity, and seamless communication capabilities. It provides efficient and precise control for various industrial processes, making it well-suited for a wide range of industrial automation applications.

General information	
Product type designation	CPU 1514SP-2 PN
HW functional status	FS01
Firmware version	V3.0
Product function	
● I&M data	Yes; I&M0 to I&M3
● Module swapping during operation (hot swapping)	Yes; Multi-hot swapping
● Isochronous mode	Yes; only with PROFINET; with minimum OB 6x cycle of 375 µs
Engineering with	
● STEP 7 TIA Portal configurable/integrated from version	V18 (FW V3.0)
Configuration control	
via dataset	Yes
Control elements	
Mode selector switch	1
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	
● Mains/voltage failure stored energy time	10 ms
Input current	
Current consumption (rated value)	0.51 A
Current consumption, max.	0.7 A
Inrush current, max.	1.34 A; Rated value

I _{2t}	0.3 A ² ·s
Power	
Infeed power to the backplane bus	8.05 W
Power loss	
Power loss, typ.	3.5 W
Memory	
Number of slots for SIMATIC memory card	1
SIMATIC memory card required	Yes
Work memory	
● integrated (for program)	600 kbyte
● integrated (for data)	3.5 Mbyte
Load memory	
● Plug-in (SIMATIC Memory Card), max.	32 Gbyte
Backup	
● maintenance-free	Yes
CPU processing times	
for bit operations, typ.	6 ns
for word operations, typ.	7 ns
for fixed point arithmetic, typ.	9 ns
for floating point arithmetic, typ.	37 ns
CPU-blocks	
Number of elements (total)	8 000; Blocks (OB, FB, FC, DB) and UDTs
DB	
● Number range	1 ... 60 999; subdivided into: number range that can be used by the user: 1 ... 59 999, and number range of DBs created via SFC 86: 60 000 ... 60 999
● Size, max.	3.5 Mbyte; For DBs with absolute addressing, the max. size is 64 KB
FB	
● Number range	0 ... 65 535
● Size, max.	600 kbyte
FC	
● Number range	0 ... 65 535
● Size, max.	600 kbyte
OB	
● Size, max.	600 kbyte
● Number of free cycle OBs	100
● Number of time alarm OBs	20
● Number of delay alarm OBs	20
● Number of cyclic interrupt OBs	20; With minimum OB 3x cycle of 250 µs
● Number of process alarm OBs	50
● Number of DPV1 alarm OBs	3
● Number of isochronous mode OBs	1
● Number of technology synchronous alarm OBs	2
● Number of startup OBs	100
● Number of asynchronous error OBs	4
● Number of synchronous error OBs	2
● Number of diagnostic alarm OBs	1
Nesting depth	
● per priority class	24
Counters, timers and their retentivity	
S7 counter	
● Number	2 048
Retentivity	
— adjustable	Yes

IEC counter	
● Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
S7 times	
● Number	2 048
Retentivity	
— adjustable	Yes
IEC timer	
● Number	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 472 KB
Flag	
● Size, max.	16 kbyte
● Number of clock memories	8; 8 clock memory bit, grouped into one clock memory byte
Data blocks	
● Retentivity adjustable	Yes
● Retentivity preset	No
Local data	
● per priority class, max.	64 kbyte; max. 16 KB per block
Dimensions	
Width	100 mm
Height	117 mm
Depth	75 mm
Weights	
Weight, approx.	265 g



