6ES7312-5BF04-0AB0

SIMATIC S7-300 CPU 312C Compact CPU

Siemens 6ES7312-5BF04-0AB0 is a CPU 312C with 64 KB work memory, MPI, 10 digital inputs, 6 digital outputs, and two integrated 10 kHz high-speed counters.

PRODUCT ENQUIRY

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Product overview

Siemens 6ES7312-5BF04-0AB0 is the SIMATIC S7-300 CPU 312C compact controller. It combines 64 KB of work memory with an MPI interface, 10 integrated digital inputs, six integrated digital outputs, and two 10 kHz high-speed counters.

The CPU operates from 24 V DC and requires both a 40-pole front connector and a SIMATIC Micro Memory Card. The integrated outputs include two high-speed channels, while the technological functions also support frequency measurement and two pulse outputs up to 2.5 kHz.

Engineering requires a supported STEP 7 release and the correct hardware support package. Before exchanging the CPU, retain the MMC, project, MPI address, retentive-data requirements, I/O wiring, and technological-function settings; the compact CPU does not support expansion units beyond its single rack.

Technical specifications

Parameter	Value
Model Number	6ES7312-5BF04-0AB0
Product Family	SIMATIC S7-300
Product Type	CPU 312C
Hardware Functional Status	01
Firmware Version	V3.3
Engineering Software	STEP 7 V5.5 SP1 or supported earlier release with HSP 203
Rated Supply	24 V DC
Permissible Supply Range	19.2 to 28.8 V DC
Rated Current Consumption	570 mA
Typical No-Load Current	90 mA
Typical Power Loss	8 W
Integrated Work Memory	64 KB
Maximum MMC Capacity	8 MB
Bit Operation Time	0.1 µs typical
Word Operation Time	0.24 µs typical
Floating-Point Operation Time	1.1 µs typical
Digital Inputs	10
Technological Inputs	8
Digital Outputs	6
High-Speed Outputs	2
Output Rated Current	500 mA
Integrated RS485 Interfaces	1; MPI
Maximum MPI Rate	187.5 kbit/s
Integrated High-Speed Counters	2 at up to 10 kHz
Pulse Outputs	2 at up to 2.5 kHz
Maximum Racks	1
Modules per Rack	8 maximum
Operating Temperature	0 to 60 °C
Width	80 mm
Height	125 mm
Depth	130 mm
Approximate Weight	410 g

Source: Siemens product data for 6ES7312-5BF04-0AB0