

APTER POWER PRODUCT MANUAL

6ES7217-1AG40-0XB0

SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU

The Siemens 6ES7217-1AG40-0XB0 is a SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU that adds differential RS-422/485 high-speed I/O to mixed onboard I/O, analog commands, and two-port PROFINET.

In a correctly engineered SIMATIC S7-1200 installation, it executes advanced compact-machine logic, processes standard and differential high-speed signals, drives standard and differential outputs, and exchanges PROFINET data. It works with the exact host hardware, power, wiring, field devices, firmware, and project configuration published for this complete article number. It is applied in motion-oriented machines, high-speed counting and pulse applications, coordinated equipment, and networked production cells.

Manufacturer	Siemens
Prepared by	Apter Power
Document ID	AP-SIE-14-6ES7217-1AG40-0XB0-PM-R1
Revision	R1
Issue date	2026-08-20

APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

**Differential high-speed I/O. Mixed analog control.
The broadest compact S7-1200 CPU.**

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SCAN FOR PRODUCT & QUOTE
6ES7217-1AG40-0XB0

1. Product Overview and Identity

The Siemens 6ES7217-1AG40-0XB0 is a SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU that adds differential RS-422/485 high-speed I/O to mixed onboard I/O, analog commands, and two-port PROFINET.

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Model Configuration

Field	Verified information
Complete model	6ES7217-1AG40-0XB0
Manufacturer	Siemens
Product description	SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU

Key Features

- Exact Siemens article number 6ES7217-1AG40-0XB0
- SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU
- 10 DI 24 V DC; 4 differential DI; 6 DO 24 V DC; 4 differential DO; 2 AI 0 to 10 V DC; 2 AO 0 to 20 mA
- 24 V DC; 20.4 to 28.8 V DC
- 150 x 100 x 75 mm
- 0.53 kg approximate published weight

2. Technical Specifications

Only manufacturer-confirmed information is stated. Values absent from the named Siemens source are marked for nameplate or document verification.

Parameter	Verified value
Product type	SIMATIC S7-1200 CPU 1217C DC/DC/DC Compact CPU
Complete article number	6ES7217-1AG40-0XB0
Product type designation	CPU 1217C DC/DC/DC
System	SIMATIC S7-1200
Supply voltage	24 V DC; 20.4 to 28.8 V DC
Integrated I/O	10 DI 24 V DC; 4 differential DI; 6 DO 24 V DC; 4 differential DO; 2 AI 0 to 10 V DC; 2 AO 0 to 20 mA
Work memory	250 KB
PROFINET	2 PROFINET ports with integrated switch
Supported local expansion	1 signal board, up to 8 signal modules, and up to 3 communication modules
IP degree of protection	IP20
Device dimensions	150 x 100 x 75 mm (W x H x D)
Approximate device weight	0.53 kg
Country of origin	Germany
Lifecycle	Siemens Industry Mall lists the complete article number as a PM300 Active Product. Confirm the current regional lifecycle, delivery status, firmware, and engineering-software requirements when quoting.

Verification Note

Use the complete 6ES7217-1AG40-0XB0 identifier. Siemens Industry Mall lists the complete article number as a PM300 Active Product. Confirm the current regional lifecycle, delivery status, firmware, and engineering-software requirements when quoting. Values not published in the cited Siemens sources are intentionally not inferred.

3. Functions, Applications and Components

Core Functions

- Executes advanced compact-machine logic, processes standard and differential high-speed signals, drives standard and differential outputs, and exchanges PROFINET data.
- Maintains the documented CPU 1217C DC/DC/DC role for the complete 6ES7217-1AG40-0XB0 article number.
- Provides a model-specific basis for engineering, wiring, commissioning, diagnostics, and replacement verification.

Application Areas

Application	System role
Machine sequence control	Executes PLC logic while processing 10 di 24 v dc; 4 differential di; 6 do 24 v dc; 4 differential do; 2 ai 0 to 10 v dc; 2 ao 0 to 20 ma
Fast transistor output control	Commands compatible 24 V DC loads and pulse functions within the published transistor limits
Analog process acquisition	Converts the integrated 0 to 10 V inputs for limits, scaling, trends, and closed-loop logic
PROFINET automation	Coordinates HMI, distributed I/O, drives, and controllers for motion-oriented machines, high-speed counting and pulse applications, coordinated equipment, and networked production cells

Compatible Components

- SIMATIC S7-1200 hardware configuration explicitly supporting 6ES7217-1AG40-0XB0
- STEP 7 / TIA Portal version and CPU firmware stated in the current Siemens data sheet
- SIMATIC Memory Card, signal board, signal modules, and communication modules within the published CPU 1217C DC/DC/DC limits
- 24 V DC sensors, analog transmitters, output loads, PROFINET devices, connectors, shielding, and circuit protection engineered to Siemens ratings

Lifecycle Status

Siemens Industry Mall lists the complete article number as a PM300 Active Product. Confirm the current regional lifecycle, delivery status, firmware, and engineering-software requirements when quoting.

4. Installation Precautions

- Confirm every character of 6ES7217-1AG40-0XB0, the CPU 1217C DC/DC/DC marking, hardware revision, and firmware against the TIA Portal project.
- Isolate power and verify 24 V DC; 20.4 to 28.8 V DC; follow Siemens conductor, terminal, grounding, and circuit-protection requirements.
- Check 24 V DC output polarity, 0.5 A channel limit, group current, pulse-output frequency, and load suppression before connecting field loads.
- Separate analog and communication wiring from power conductors; terminate shields and references according to the S7-1200 system manual.
- Restore the verified project, commission inputs and outputs by circuit group, test network and fault behavior, and record the results.

STOP - Verify before installation

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Use the physical nameplate and current Siemens documents as the controlling records.

5. Official Source and Use Notice

Official source

Siemens official technical data sheet for 6ES7217-1AG40-0XB0: <https://support.industry.siemens.com/teddatasheet/?caller=SIOS&format=pdf&language=en&mlfbs=6ES7217-1AG40-0XB0>; Siemens official S7-1200 System Manual landing page: <https://support.industry.siemens.com/cs/ww/en/view/109759862>

Apter Power product page

<https://www.apterpower.com/Siemens/6es7217-1ag40-0xb0>

Use Notice

This is an original Apter Power product-specific reference prepared from the Siemens source named above. It is not a Siemens publication and does not replace the original data sheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

ASK FOR QUOTE

For availability and quotation details, visit www.apterpower.com or contact sales13@apterpower.com.