Siemens SIMATIC S7-1500F 6ES7517-3FP01-0AB0

CPU 1517F-3 PN/DP fail-safe controller with 3 MB program work memory, 8 MB data work memory, PROFINET IRT, PROFINET RT and PROFIBUS DP.

CORE FEATURE	Fail-safe S7-1500F controller with three integrated industrial communication interfaces and 2 ns bit performance.

Technical Data

Complete model	6ES7517-3FP01-0AB0
Product family	SIMATIC S7-1500F
Product type	CPU 1517F-3 PN/DP fail-safe central processing unit
Work memory	3 MB for program; 8 MB for data
Integrated interfaces	PROFINET IRT with 2-port switch; PROFINET RT; PROFIBUS DP
Bit performance	2 ns
Supply voltage	24 V DC; permissible range 19.2 to 28.8 V DC
Current consumption	1.7 A rated; 2.2 A maximum; inrush current 2.2 A maximum
Power loss	29 W typical
Dimensions	175 x 147 x 129 mm, width x height x depth
Weight	2.262 kg net weight
Operating limits	0 to +60 degrees C; operating altitude up to 5,000 m
Engineering	STEP 7 TIA Portal V19 for firmware V3.1
Memory card	SIMATIC Memory Card required

Official Source Trace

Siemens Industry Mall exact product record

Exact article number, official description, lifecycle, net weight, country of origin and RoHS information.

https://mall.industry.siemens.com/mall/DK/DK/Catalog/Product/?mlfb=6ES7517-3FP01-0AB0

SIMATIC S7-1200/S7-1500 F-CPUs Product Information

Document A5E35635424-AU, 09/2025. Relevant page 21: exact CPU 1517F-3 PN/DP differences - 1.7 A rated current, 2.2 A maximum and inrush current, 0.5 A squared seconds, and 29 W power loss.

https://support.industry.siemens.com/cs/attachments/109478599/s71200_1500_f_cpus_product_information_x_en-US.pdf

CPU 1517-3 PN/DP Equipment Manual

Document A5E33594822-AF, 11/2023. Relevant page 53: 175 x 147 x 129 mm dimensions and related CPU 1517-3 PN/DP technical data referenced by Siemens for this F-CPU.

https://support.industry.siemens.com/cs/attachments/90471765/s71500_cpu1517_3_pndp_manual_en-US_en-US.pdf

Selection and Verification

Exact suffix	Use the complete -3FP01-0AB0 article number on the quotation, nameplate and packaging.
Interface check	Confirm that the application requires PROFINET IRT, a second PROFINET RT interface and PROFIBUS DP.
Safety engineering	Confirm the required STEP 7 Safety version, F-signature handling and connected F-I/O before commissioning.
Substitution	Do not treat 6ES7517-3FP00-0AB0 or PN-only 6ES7517-3FQ10-0AB0 as automatic replacements.
Physical evidence	Request current photos of the full Siemens label, display, ports, power terminals, backplane connector, seals and packaging.

Document Note

This extract consolidates exact-model data from Siemens sources for purchasing and engineering verification. It does not replace the complete Siemens safety, installation and commissioning documentation.