

OFFICIAL MANUFACTURER DOCUMENT PACKAGE

Installation Instructions

6ES7416-3ER05-0AB0

Siemens official documentation for the exact article number.

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Selected official Siemens pages follow this cover.

SIMATIC S7-400

Central processing units

CPU 412

Ordering data	Order No.	Order No.
CPU 412-1 Main memory 288 KB, power supply 24 V DC, MPI/PROFIBUS DP master interface, slot for memory card, incl. slot number labels	6ES7 412-1XJ05-0AB0	Manual "Communication for SIMATIC S7-300/-400" German English French Spanish Italian SIMATIC Manual Collection B3 Electronic manuals on DVD, five languages: S7-200/300/400, C7, LOGO!, SIMATIC DP, PC, PG, STEP 7, engineering software, runtime software, PCS 7, SIMATIC HMI, SIMATIC NET
CPU 412-2 Main memory 512 KB, power supply 24 V DC, MPI/PROFIBUS DP master interface, slot for memory card, incl. slot number labels	6ES7 412-2XJ05-0AB0	6ES7 398-8EA00-8AA0 6ES7 398-8EA00-8BA0 6ES7 398-8EA00-8CA0 6ES7 398-8EA00-8DA0 6ES7 398-8EA00-8EA0 6ES7 998-8XC01-8YE0
Memory card RAM 64 KB 256 KB 1 MB 2 MB 4 MB 8 MB 16 MB 64 MB	6ES7 952-0AF00-0AA0 6ES7 952-1AH00-0AA0 6ES7 952-1AK00-0AA0 6ES7 952-1AL00-0AA0 6ES7 952-1AM00-0AA0 6ES7 952-1AP00-0AA0 6ES7 952-1AS00-0AA0 6ES7 952-1AY00-0AA0	SIMATIC Manual Collection B3 update service for 1 year Current "Manual Collection" DVD and the three subsequent updates Brochure "SIMATIC S7-400 automation system - Design and application" German English RS 485 bus connector with 90° cable outlet Max. transfer rate 12 Mbit/s Without PG interface With PG interface RS 485 bus connector with angled cable outlet Max. transfer rate 12 Mbit/s Without PG interface With PG interface RS 485 bus connector with 90° cable outlet for Fast Connect system Max. transfer rate 12 Mbit/s Without PG interface With PG interface RS 485 bus connector with axial cable outlet For SIMATIC OP, for connection to PPI, MPI, PROFIBUS PROFIBUS FastConnect bus cable Standard type with special design for quick mounting, 2-core, shielded, sold by the meter, max. delivery unit 1000 m, minimum order quantity 20 m
FEPROM memory card 64 KB 256 KB 1 MB 2 MB 4 MB 8 MB 16 MB 32 MB 64 MB	6ES7 952-0KF00-0AA0 6ES7 952-0KH00-0AA0 6ES7 952-1KK00-0AA0 6ES7 952-1KL00-0AA0 6ES7 952-1KM00-0AA0 6ES7 952-1KP00-0AA0 6ES7 952-1KS00-0AA0 6ES7 952-1KT00-0AA0 6ES7 952-1KY00-0AA0	6ES7 498-8AA00-8AB0 6ES7 498-8AA00-8BB0 6ES7 972-0BA12-0XA0 6ES7 972-0BB12-0XA0 6ES7 972-0BA41-0XA0 6ES7 972-0BB41-0XA0 6ES7 972-0BA51-0XA0 6ES7 972-0BB51-0XA0 6GK1 500-0EA02 6XV1 830-0EH10
MPI cable For connecting SIMATIC S7 and the PG through MPI; 5 m in length	6ES7 901-0BF00-0AA0	
Slot number plates 1 set (spare part)	6ES7 912-0AA00-0AA0	
Manual "SIMATIC S7-400 automation system" incl. instruction list German English French Spanish Italian	6ES7 498-8AA05-8AA0 6ES7 498-8AA05-8BA0 6ES7 498-8AA05-8CA0 6ES7 498-8AA05-8DA0 6ES7 498-8AA05-8EA0	
S7-400 instructions list German English French Spanish Italian	6ES7 498-8AA05-8AN0 6ES7 498-8AA05-8BN0 6ES7 498-8AA05-8CN0 6ES7 498-8AA05-8DN0 6ES7 498-8AA05-8EN0	

B3: Subject to export regulations: AL: N and ECCN: 5D992B1

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SIMATIC S7-400

Central processing units

CPU 414

Ordering data	Order No.		Order No.
PROFIBUS bus components		PROFINET bus components	
RS 485 bus connector with 90° cable outlet Max. transfer rate 12 Mbit/s Without PG interface With PG interface	6ES7 972-0BA12-0XA0 6ES7 972-0BB12-0XA0	IE FC TP Standard Cable GP 2x2 4-core, shielded TP installation cable for connection to IE FC Outlet RJ45/ IE FC RJ45 Plug; PROFINET-compatible; with UL approval; sold by the meter	6XV1 840-2AH10
RS 485 bus connector with angled cable outlet Max. transfer rate 12 Mbit/s Without PG interface With PG interface	6ES7 972-0BA41-0XA0 6ES7 972-0BB41-0XA0	FO Standard Cable GP (50/125) Standard cable, splittable, UL approval, sold by the meter	6XV1 873-2A
RS 485 bus connector with 90° cable outlet for FastConnect system Max. transfer rate 12 Mbit/s Without PG interface With PG interface	6ES7 972-0BA51-0XA0 6ES7 972-0BB51-0XA0	SCALANCE X204-2 Industrial Ethernet Switch Industrial Ethernet Switches with integral SNMP access, web diagnostics, copper cable diagnostics and PROFINET diagnostics for configuring line, star and ring topologies; four 10/100 Mbit/s RJ45 ports and two FO ports	6GK5 204-2BB10-2AA3
RS 485 bus connector with axial cable outlet For SIMATIC OP, for connection to PPI, MPI, PROFIBUS	6GK1 500-0EA02	IE FC RJ45 plugs RJ45 plug connector for Industrial Ethernet with a rugged metal enclosure and integrated insulation displacement contacts for connecting Industrial Ethernet FC installation cables	
PROFIBUS FastConnect bus cable Standard type with special design for quick mounting, 2-core, shielded, sold by the meter, max. delivery unit 1000 m, minimum order quantity 20 m	6XV1 830-0EH10	IE FC RJ45 plug 180 180° cable outlet 1 unit 10 units 50 units	6GK1 901-1BB10-2AA0 6GK1 901-1BB10-2AB0 6GK1 901-1BB10-2AE0
RS 485 repeater for PROFIBUS Data transfer rate up to 12 Mbit/s; 24 V DC; IP20 housing	6ES7 972-0AA01-0XA0	PROFIBUS/PROFINET bus components For establishing MPI/PROFIBUS/PROFINET communication	see Catalogs IK PI, CA 01

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SIMATIC S7-400

Central processing units

CPU 417

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Ordering data	Order No.	Order No.
CPU 417-4 Main memory 30 MB, power supply 24 V DC, MPI/PROFIBUS DP master interface, PROFIBUS DP master interface, module slots for max. 2 additional IF modules, slot for memory card, incl. slot number labels	6ES7 417-4XT05-0AB0	Manual "Communication for SIMATIC S7-300/-400" German 6ES7 398-8EA00-8AA0 English 6ES7 398-8EA00-8BA0 French 6ES7 398-8EA00-8CA0 Spanish 6ES7 398-8EA00-8DA0 Italian 6ES7 398-8EA00-8EA0
Memory card RAM 64 KB 6ES7 952-0AF00-0AA0 256 KB 6ES7 952-1AH00-0AA0 1 MB 6ES7 952-1AK00-0AA0 2 MB 6ES7 952-1AL00-0AA0 4 MB 6ES7 952-1AM00-0AA0 8 MB 6ES7 952-1AP00-0AA0 16 MB 6ES7 952-1AS00-0AA0 64 MB 6ES7 952-1AY00-0AA0		SIMATIC Manual Collection B3 6ES7 998-8XC01-8YE0 Electronic manuals on DVD, five languages: S7-200/300/400, C7, LOGO!, SIMATIC DP, PC, PG, STEP 7, engineering software, runtime software, PCS 7, SIMATIC HMI, SIMATIC NET
FEPROM memory card 64 KB 6ES7 952-0KF00-0AA0 256 KB 6ES7 952-0KH00-0AA0 1 MB 6ES7 952-1KK00-0AA0 2 MB 6ES7 952-1KL00-0AA0 4 MB 6ES7 952-1KM00-0AA0 8 MB 6ES7 952-1KP00-0AA0 16 MB 6ES7 952-1KS00-0AA0 32 MB 6ES7 952-1KT00-0AA0 64 MB 6ES7 952-1KY00-0AA0		SIMATIC Manual Collection update service for 1 year B3 6ES7 998-8XC01-8YE2 Current "Manual Collection" DVD and the three subsequent updates
MPI cable For connecting SIMATIC S7 and the PG through MPI; 5 m in length	6ES7 901-0BF00-0AA0	Brochure "SIMATIC S7-400 automation system - Design and application" German 6ES7 498-8AA00-8AB0 English 6ES7 498-8AA00-8BB0
IF 964-DP interface module To connect an additional DP line; for CPU 414-3, CPU 414-3 PN/DP, CPU 416-3, CPU 416-3 PN/DP, CPU 417-4	6ES7 964-2AA04-0AB0	RS 485 bus connector with 90° cable outlet Max. transfer rate 12 Mbit/s Without PG interface 6ES7 972-0BA12-0XA0 With PG interface 6ES7 972-0BB12-0XA0
Slot number plates 1 set (spare part)	6ES7 912-0AA00-0AA0	RS 485 bus connector with angled cable outlet Max. transfer rate 12 Mbit/s Without PG interface 6ES7 972-0BA41-0XA0 With PG interface 6ES7 972-0BB41-0XA0
Manual "SIMATIC S7-400 automation system" incl. instruction list German 6ES7 498-8AA05-8AA0 English 6ES7 498-8AA05-8BA0 French 6ES7 498-8AA05-8CA0 Spanish 6ES7 498-8AA05-8DA0 Italian 6ES7 498-8AA05-8EA0		RS 485 bus connector with 90° cable outlet for FastConnect system Max. transfer rate 12 Mbit/s Without PG interface 6ES7 972-0BA51-0XA0 With PG interface 6ES7 972-0BB51-0XA0
S7-400 instructions list German 6ES7 498-8AA05-8AN0 English 6ES7 498-8AA05-8BN0 French 6ES7 498-8AA05-8CN0 Spanish 6ES7 498-8AA05-8DN0 Italian 6ES7 498-8AA05-8EN0		RS 485 bus connector with axial cable outlet For SIMATIC OP, for connection to PPI, MPI, PROFIBUS 6GK1 500-0EA02 PROFIBUS FastConnect bus cable Standard type with special design for quick mounting, 2-core, shielded, sold by the meter, max. delivery unit 1000 m, minimum order quantity 20 m 6XV1 830-0EH10

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SIMATIC S7-400

Central processing units

CPU 412H, CPU 414H, CPU 417H

Ordering data	Order No.	Order No.
Brochure "SIMATIC S7-400 automation system - design and application" German English	6ES7 498-8AA00-8AB0 6ES7 498-8AA00-8BB0	RS 485 bus connector with axial cable outlet For SIMATIC OP, for connecting to PPI, MPI, PROFIBUS 6GK1 500-0EA02
RS 485 bus connector with 90° cable outlet Max. transmission rate 12 Mbit/s Without programming device interface With programming device interface	6ES7 972-0BA12-0XA0 6ES7 972-0BB12-0XA0	PROFIBUS FastConnect bus cable Standard type with special design for quick mounting, 2-core, shielded, sold by the meter, max. delivery unit 1000 m, minimum ordering quantity 20 m 6XV1 830-0EH10
RS 485 bus connector with angular cable outlet Max. transmission rate 12 Mbit/s Without programming device interface With programming device interface Max. transmission rate 1.5 Mbit/s Without programming device interface	6ES7 972-0BA41-0XA0 6ES7 972-0BB41-0XA0 6ES7 972-0BA30-0XA0	
RS 485 bus connector with 90° cable outlet for FastConnect connection system Max. transmission rate 12 Mbit/s Without programming device interface With programming device interface	6ES7 972-0BA51-0XA0 6ES7 972-0BB51-0XA0	