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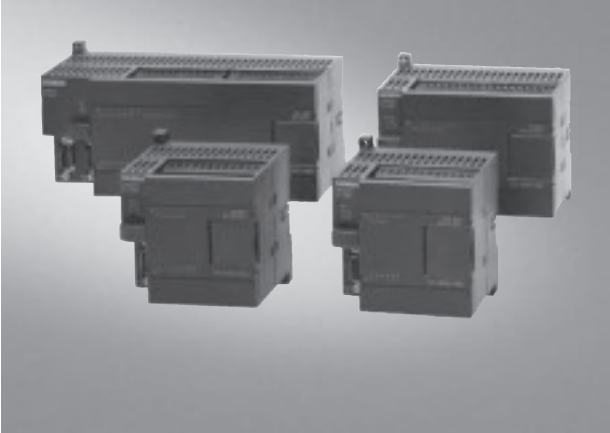
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Overview



SIMATIC S7-200

- The micro PLC offers maximum automation at minimum cost
- Extremely simple installation, programming and operation
- Large-scale integration, space-saving, powerful
- Can be used both for simple controls and for complex automation tasks
- All CPUs can be used in standalone mode, in networks and within distributed structures
- Suitable for applications where programmable controllers would not have been viable in the past
- With outstanding real-time performance and powerful communication options (PPI, PROFIBUS DP, AS-Interface, Ethernet)

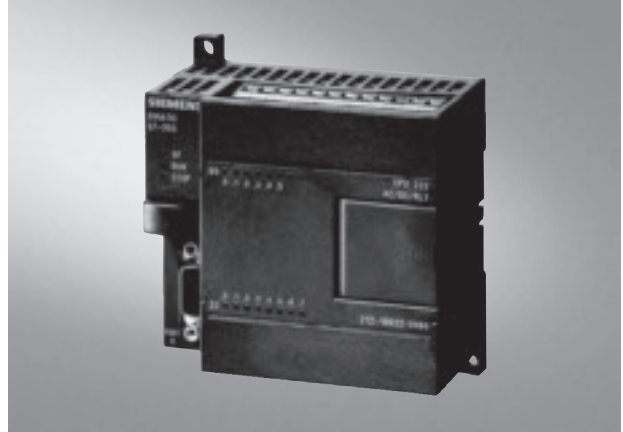
Overview

S7-221



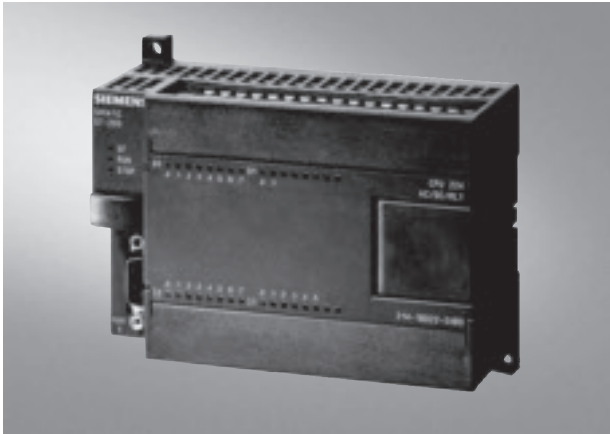
- The smart compact CPU
- With 10 inputs/outputs on board
- Not expandable

S7-222



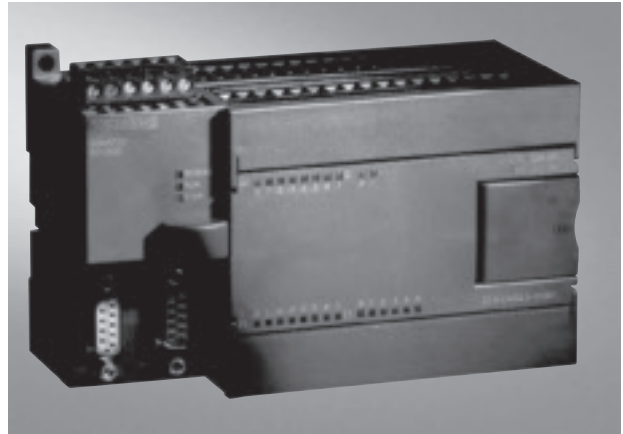
- The superior compact CPU
- With 14 inputs/outputs on board
- Expandable with up to 2 expansion modules

S7-224



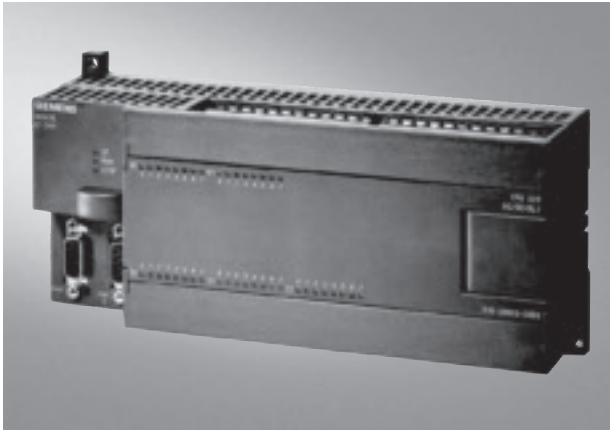
- The compact high-performance CPU
- With 24 inputs/outputs on board
- Expandable with up to 7 expansion modules

S7-224 XP



- The power CPU
- With additional PPI port for added flexibility and communication options
- With 24 digital and 3 analog inputs/outputs onboard
- Expandable with up to 7 expansion modules

S7-226



- The high-performance CPU
- With additional PPI port for added flexibility and communication options
- With 40 inputs/outputs on board
- Expandable with up to 7 expansion modules

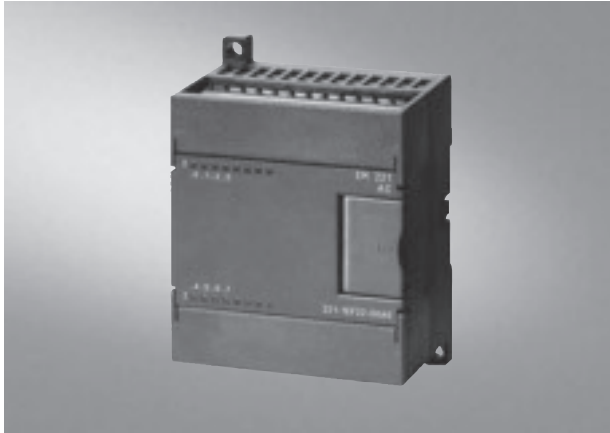
SIMATIC S7-200

Central Processing Units

CPU 221, 222, 224, 224 XP, 226

| Ordering Data | Order No. | Order No. |
|---|--|--|
| CPU 221 Compact CPU, 4 KB RAM, 24 V DC supply voltage, 6 DI/4 DO integrated Compact CPU, 4 KB RAM, 100 to 230 V AC supply voltage, 6 DI/4 DO integrated, relay outputs | 6ES72110AA230XB0 | Memory module MC 291, EEPROM for CPU 221/222/224/224 XP/226 64 KB 256 KB Optional battery module Optional combined clock and battery module for CPU 221/222 only |
| | 6ES72110BA230XB0 | |
| CPU 222 Compact CPU, expandable, 4 KB RAM, 24 V DC supply voltage, 8 DI/6 DO integrated Compact CPU, expandable, 4 KB RAM, 100-230 V AC, 8 DI/6 DO integrated, relay outputs | 6ES72121AB230XB0 | Intelligent RS 232/PPI multimaster cable for connecting devices with an RS 232 interface to the SIMATIC S7-200 or PPI network; master in the multimaster PPI network |
| | 6ES72121BB230XB0 | |
| CPU 224 Compact CPU, expandable, 8/12 KB RAM for program, 8 KB RAM for data, 24 V DC supply voltage, 14 DI/10 DO, integrated Compact CPU, expandable, 8/12 KB RAM for program, 8 KB RAM for data, 100 - 230 V AC supply voltage, 14 DI/10 DO, integrated, relay outputs | 6ES72141AD230XB0 | Intelligent USB/PPI multimaster cable for connecting devices with an USB interface to the SIMATIC S7-200 or PPI network; master in the multimaster PPI network Backplane bus expansion cable for connecting the two equipment tiers in a two-tier configuration, for CUP 222/224/224 XP/226 |
| | 6ES72141BD230XB0 | |
| CPU 224 XP Compact CPU, expandable, 12/16 KB RAM for program, 10 KB RAM for data, 24 V DC supply voltage, 14 DI/10 DO/2 AI/1 AO integrated Compact CPU, expandable, 12/16 KB RAM for program, 10 KB RAM for data, 100 - 230 V AC supply voltage, 14 DI/10 DO (relay outputs) 2 AI/1 AO integrated | 6ES72142AD230XB0 | MPI cable 5 m for connecting the S7-200 to the MPI SIM 274 simulator (optional) with 8 connection terminals for CPU 221/222 with 14 connection terminals for CPU 224/224 XP with 24 connection terminals for CPU 226 |
| | 6ES72142BD230XB0 | |
| CPU 226 Compact CPU, expandable, 16/24 KB RAM for program, 10 KB RAM for data, 24 V DC supply voltage, 24 DI/16 DO, integrated Compact CPU, expandable, 16/24 KB RAM for program, 10 KB RAM for data, 100 - 230 V AC supply voltage, 24 DI/16 DO, integrated, relay outputs | 6ES72162AD230XB0 | Front flap set (spare part) contains different covering flaps for CPU and EM Plug-in terminal block (spare part) with 12 connections (for CPU 22x) with 18 connections (for CPU 224) with 14 connection terminals (for CPU 226) |
| | 6ES72162BD230XB0 | |
| STEP 7 Micro/WIN V4 programming software <i>Target system:</i> All CPUs of the SIMATIC S7-200 range <i>Requirements:</i> Windows 2000/XP on PG or PC <i>delivery type:</i> English, German, French, Spanish, Italian, Chinese; with online documentation Single license Upgrade single license | 6ES78102CC030YX0 6ES78102CC030YX3 | S7-200 programmable controller, system manual for CPU 221/222/224/224 XP/226 and STEP 7-Micro/Win V4 English 6ES72988FA248BH0 |

Overview



- Digital inputs/outputs to supplement the onboard I/Os of the CPUs
- For flexible adaptation of PLC to respective task
- For subsequent upgrading of the system with additional inputs

Ordering Data

Order No.

Digital input module EM 221

For CPU 221/222/224/224 XP/226

- 8 inputs, 24 V DC, isolated, source/sink switching
- 16 inputs, 24 V DC, isolated, source/sink switching
- 8 inputs, 120/230 V AC

6ES72211BF220XA0

6ES72211BH220XA0

6ES72211EF220XA0

Digital output module EM 222

For CPU 221/222/224/224 XP/226

- 4 outputs, 24 V DC; 5 A
- 8 outputs, 24 V DC; 0.75 A
- 4 outputs, 24 V DC/24 V AC up to 230 V; 10 A, relay outputs
- 8 outputs, 24 V DC/24 V AC up to 230 V; 2 A, relay outputs
- 8 outputs, AC 120/230 V; 0.5 A, isolated

6ES72221BD220XA0

6ES72221BF220XA0

6ES72221HD220XA0

6ES72221HF220XA0

6ES72221EF220XA0

Digital input/output module EM 223

For CPU 221/222/224/224 XP/226

- 4 inputs 24 V DC, 4 outputs 24 V DC; 0.75 A, galvanically isolated
- 8 inputs 24 V DC, 8 outputs 24 V DC; 0.75 A, galvanically isolated
- 16 inputs 24 V DC, 16 outputs 24 V DC; 0.75 A, galvanically isolated
- 4 inputs 24 V DC, 4 outputs, relay
- 8 inputs 24 V DC, 8 outputs, relay
- 16 inputs 24 V DC, 16 outputs, relay
- 32 inputs 24 V DC, 32 outputs 24 V DC; 0.75 A
- 32 inputs 24 V DC, 32 outputs, relay

6ES72231BF220XA0

6ES72231BH220XA0

6ES72231BL220XA0

6ES72231HF220XA0

6ES72231PH220XA0

6ES72231PL220XA0

6ES72231BM220XA0

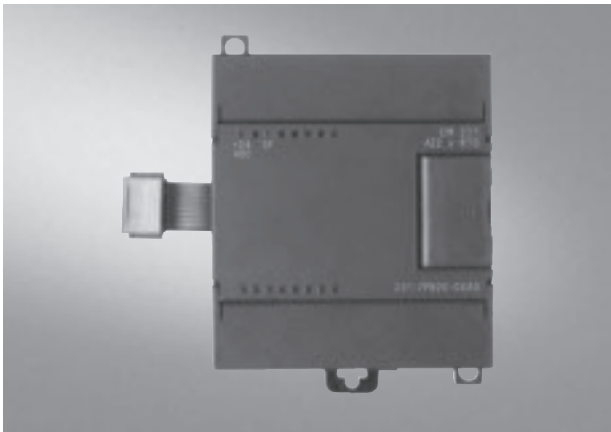
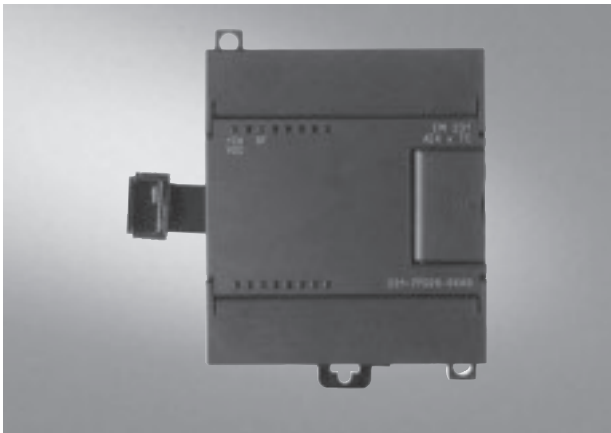
6ES72231PM220XA0

SIMATIC S7-200

Analog Modules

EM 231, EM 232, EM 235

Overview



Ordering Data

Order No.

EM 231 analog input module

for CPU 222/224/224 XP/226;
4 inputs, 12-bit resolution

6ES72310HC220XA0

for CPU 222/224/224 XP/226;
8 inputs, 12-bit resolution

6ES72310HF220XA0

EM 232 analog output module

for CPU 222/224/224 XP/226;
2 outputs, 12-bit resolution

6ES72320HB220XA0

for CPU 222/224/224 XP/226;
4 outputs, 12-bit resolution

6ES72320HD220XA0

EM 235 analog input/output

for CPU 222/224/224 XP/226;
4 inputs, 1 output, 12-bit resolution

6ES72350KD220XA0

- Analog inputs and outputs for the SIMATIC S7-200
- With extremely short conversion times
- For connections of analog sensors and actuators without additional amplifier
- For solving the more complex automation tasks

EM 231 thermocouple module

4 inputs +/- 80 mV, 15-bit resolution + sign, thermocouples type J, K, S, T, R, E, N

6ES72317PD220XA0

8 inputs +/- 80 mV, 15-bit resolution + sign, thermocouples type J, K, S, T, R, E, N

6ES72317PF220XA0

- For user-friendly, high precision temperature detection
- 7 standard types of thermocouple can be used
- For measuring low-level analog signals (± 80 mV), as well
- Easy to install in an existing system

EM 231 RTD module

2 inputs for thermistors
Pt100/200/500/1000/10000,
Ni100/120/1000, Cu10;
resistance 150/300/600 Ohms,
15-bit resolution + sign

6ES72317PB220XA0

4 inputs for thermistors
Pt100/200/500/1000/10000,
Ni100/120/1000, Cu10;
resistance 150/300/600 Ohms,
15-bit resolution + sign

6ES72317PC220XA0

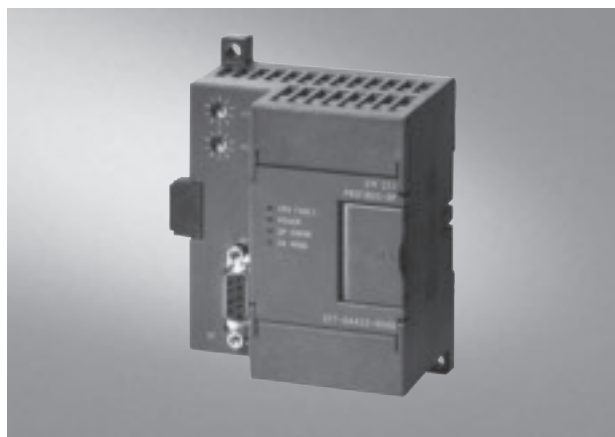
- For user-friendly, high precision temperature detection
- Supports 31 standard resistance temperature sensors
- Easy to install in an existing system

SIMATIC S7-200

Function/Communication Modules

EM 253, EM 241, EM 277

Overview



Ordering Data

Order No.

EM 253 positioning module

6ES72531AA220XA0

for activating stepper motors or servo drives

- Function modules for simple positioning tasks (1 axis)
- Stepper motors and servo motors from the Micro Stepper to the high-performance servo drive can be connected
- Flexible connection possibilities
- Full support from STEP 7-Micro/WIN with parameterization and startup

EM 241 modem module

6ES72411AA220XA0

Analog modem for remote maintenance/remote diagnostics; CPU-to-CPU/PC communication, SMS/pager messaging

- Modem expansion module for SIMATIC S7-200
- The Plug&Play solution for all classical modem tasks in the PLC field
- Used for remote maintenance/remote diagnostics, CPU-to-CPU/PC communication or SMS/pager messaging
- Minimal engineering outlay required
- Replaces external modems connected via the communications interface of the CPU
- Easy to retrofit

PROFIBUS DP EM 277 input module

6ES72770AA220XA0

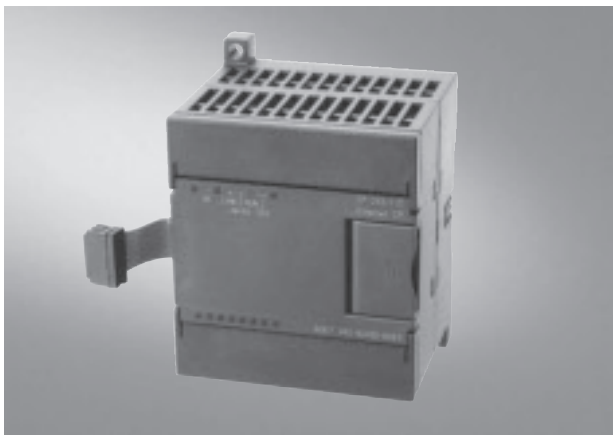
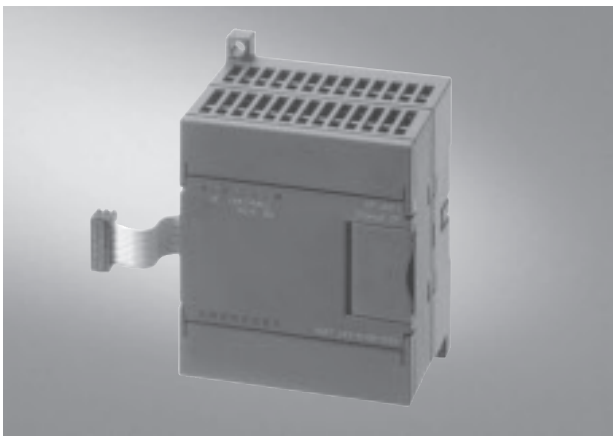
for CPU 222/224/224 XP/226, for connecting to PROFIBUS DP (slave) and MPI

- For connection of the S7-22x to PROFIBUS DP (as slave) and MPI
- Can be simultaneously operated as MPI slave and DP slave
- Transmission rate max. 12 Mbps
- Can be used with CPU from version 6ES722xxxx21xxxx

SIMATIC S7-200 Communication Modules

CP 243-2, CP 243-1, CP 243-1 IT

Overview



Ordering Data

Order No.

CP 243-2 communications processor

6GK72432AX010XA0

For connection of SIMATIC S7-200 (2nd generation) to AS-Interface with bus connector

Manual for CP 243-2

Including AS-Interface fundamentals and diskette with program examples - paper version

- English

6GK72432AX008BA0

The CP 243-2 is the AS-Interface master for the innovated generation of SIMATIC S7-200. The communications processor (6GK1 243-2AX01-0AX0) supports the extended AS-Interface specification V2.1 and has the following functions:

- Up to 62 AS-Interface slaves can be connected and integrated analog value transfer (according to the extended AS-Interface specification V2.1)
- Supports all AS-Interface master functions in accordance with the extended AS-Interface specification V2.1
- Status displays for operating states and display of the functional readiness of connected slaves with LEDs in the front panel
- Indication of errors (incl. AS-Interface voltage errors, configuration errors) with LEDs in the front panel
- Compact enclosure designed to match the new generation of SIMATIC S7-200

CP 243-1 communications processor

6GK72431EX000XE0

for connection of SIMATIC S7-200 to Industrial Ethernet; for S7 communication, PG communication with electronic manual on CD-ROM, German, English, French, Italian, Spanish

- Connection of SIMATIC S7-200 to Industrial Ethernet with
 - 10/100 Mbit/s
 - Half/full duplex
 - RJ 45 socket
 - TCP/IP
- Configuration, remote programming and service is possible with STEP 7-Micro/WIN through Industrial Ethernet (program upload and download, status)
- CPU/CPU communication is possible through Industrial Ethernet (Client + Server, 8 S7 connections + 1 PG connection)
- Thanks to integration in S7-OPC, further processing of PLC data in PC applications is possible
- Modules can be replaced without the need for a programming device

CP 243-1 IT communications processor

6GK72431GX000XE0

for connection of SIMATIC S7-200 to Industrial Ethernet; for S7 communication, PG communication E-mail and WWW server; with electronic manual on CD-ROM German, English, French, Italian, Spanish

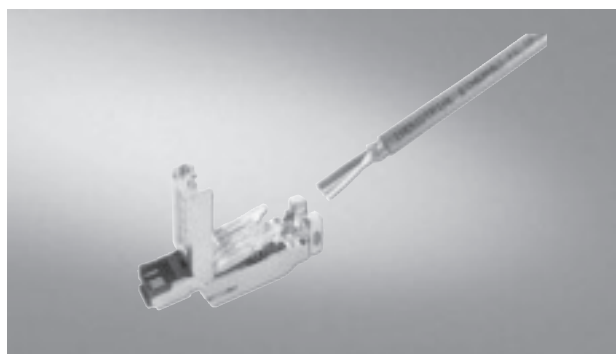
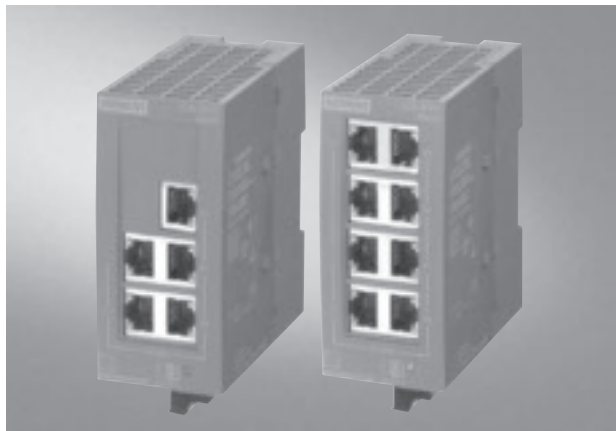
- Connection of SIMATIC S7-200 to Industrial Ethernet with
 - 10/100 Mbit/s
 - Half/full duplex
 - RJ45 socket
 - TCP/IP
- Configuration, remote programming and service is possible with STEP 7-Micro/WIN through Industrial Ethernet (program upload and download, status)
- CPU/CPU communication is possible through Industrial Ethernet (Client + Server, 8 S7 connections + 1 PG connection)
- IT communication
 - Web function
 - E-mail function
 - FTP Client function for program-controlled data exchange (e.g. DOS, UNIX, LINUX, embedded systems)
- FTP server with 8 Mbyte memory
- OPC enables further processing of PLC data in PC applications

SIMATIC NET

Ethernet Infrastructure Components

X005, X108, X208,
FC RJ45 plugs and FC cables

Overview



Ordering Data

Order No.

XB005 (5 RJ45 ports)

6GK50050BA001AB2

XB008 (8 RJ45 ports)

6GK50080BA001AB2

Scalance Unmanaged Industrial Ethernet Switches

The SCALANCE unmanaged Industrial Ethernet switch with up to eight RJ45 10/100 Mbit/s ports. These products provide a cost-optimized solution for the design of small star or line structures with switching functionality in isolated machines or plant sections. These SCALANCE switches are designed for space saving installation on standard DIN rail and include a removable terminal block for the 24 VDC power connection.

X208 (8 RJ45 Ports)

6GK52080BA102AA3

Scalance Managed Industrial Ethernet Switch

The SCALANCE managed Industrial Ethernet switch is offered with on-site diagnostics via LEDs. The unit can be included in network management systems via SNMP. SCALANCE X-208 switch has an integrated redundant ring manager. The SCALANCE X-208 product has a redundant voltage supply (2 x 24 V DC) and a fault-signalling contact on the front of the housing. For diagnostics purposes the unit can also be accessed via a Web Browser.

1 pack = 1 item

6GK19011BB102AA0

1 pack = 10 items

6GK19011BB102AB0

1 pack = 50 items

6GK19011BB102AE0

Industrial Ethernet FastConnect RJ45 Plugs

The compact and rugged design of the plug-in connectors allow the FC RJ45 Plugs to be used in the industrial environment.

FC Stripping Tool

6GK19011GA00

Industrial Ethernet FastConnect Stripping Tool

Preadjusted stripping tool for fast stripping of Industrial Ethernet FC cables.

General Purpose

6XV18402AH10

Flexible Cable

6XV18702B

Trailing Cable

6XV18702D

Torsion Cable

6XV18702F

Marine Cable

6XV18404AH10

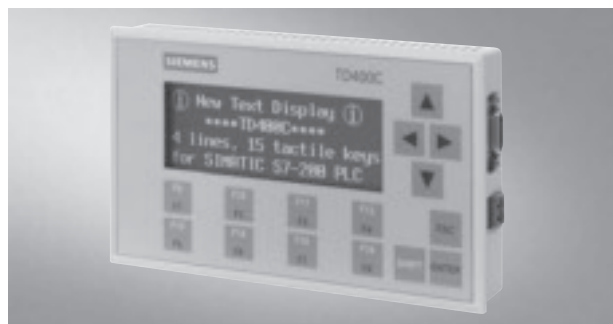
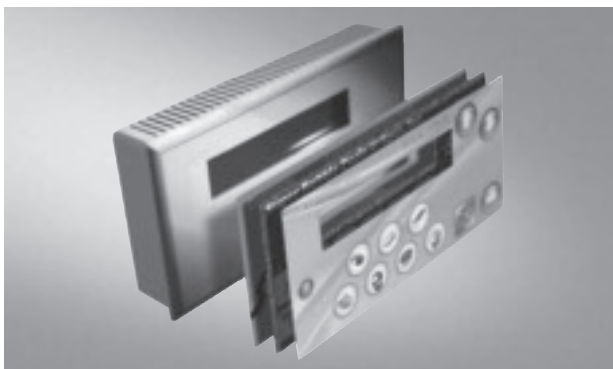
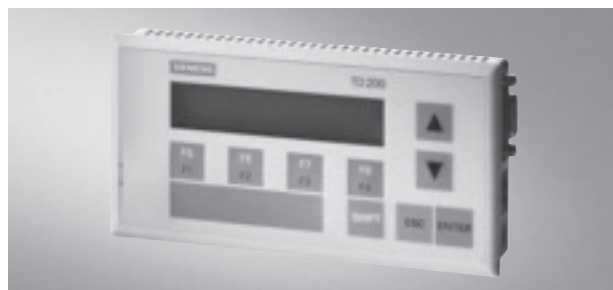
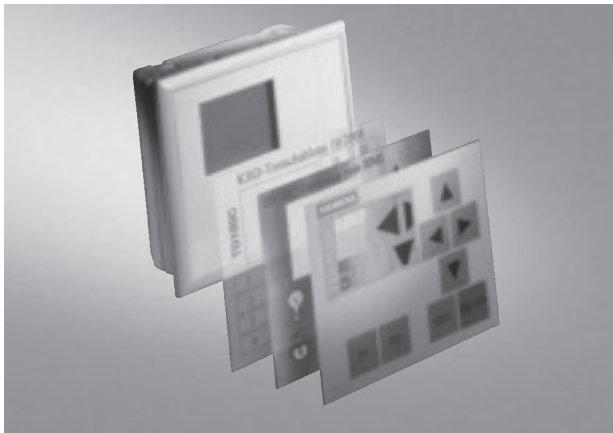
Industrial Ethernet FastConnect Cable (2x2)

4-core shielded TP installation cable for connection to Industrial FastConnect RJ45 plugs.

SIMATIC S7-200 Human Machine Interface

TD 100C, TD 200, TD 200C, TD 400C

Overview



Ordering Data

Order No.

Text Display TD 100C

With individually configurable control elements on the front of the device; for connecting to SIMATIC S7-200; can be used with STEP 7 Micro/WIN V4 SP2 and higher.

6ES72721BA100YA0

TD 100C Connecting Cable

6ES79013EB100XA0

Blank Template Sheets

6ES72721BF007AA0

- The user-friendly text display for the S7-200 with customizable display
- For control and monitoring: Message text display, intervention in PLC program, setting of inputs and outputs
- Direct connection to CPU interface using optional cable or incorporation into network (also via EM 277)
- No separate power supply required
- No separate configuration software required
- Front panel design can be individually selected

Text Display TD 200

for connecting to SIMATIC S7-200; used with STEP 7 Micro/WIN V3.2 SP4 and higher.

6ES72720AA300YA0

- The user-friendly text display for the S7-200
- For control and monitoring: Message text display, intervention in PLC program, setting of inputs and outputs
- Direct connection to CPU interface using supplied cable or incorporation into network (also via EM 277)
- No separate power supply required
- No separate configuration software required

Text Display TD 200C

With individually configurable control elements on the front of the device; for connecting to SIMATIC S7-200; can be used with STEP 7-Micro/WIN V4 and higher

6ES72721AA100YA0

Blank Template Sheets

6ES72721AF007AA0

- The user-friendly text display for the S7-200 supporting customized overlays
- For control and monitoring: Message text display, intervention in PLC program, setting of inputs and outputs
- Direct connection to CPU interface using supplied cable or incorporation into network (also via EM 277)
- No separate power supply required
- No separate configuration software required

Text Display TD 400C

Bright white-on-blue 4-line text panel on 3.7-inch backlight LCD for connecting to SIMATIC S7-200; can be used with STEP 7-Micro/WIN V4 and higher

6AV66400AA000AX1

Blank Template Sheets

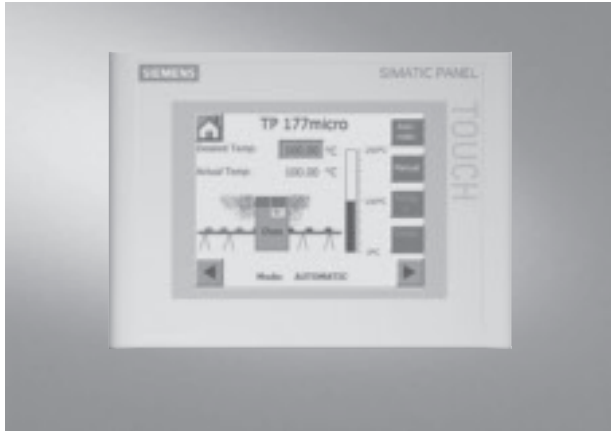
6AV66710AP000AX0

- User-friendly text display for the S7-200 supporting customized overlays
- Direct connection to CPU interface using supplied cable or incorporation into network (also via EM 277)
- 24 text characters per line, 8 configurable user function buttons
- No separate power supply required
- No separate configuration software required

SIMATIC S7-200 Human Machine Interface

TP 177micro, OP 73micro

Overview



- Touch panel for operator control and monitoring of small machines and plants
- Low-cost starter unit in the category of touch panels with graphics capability complete with all the basic functions required for simple tasks
- Pixel graphics 5.7" STN Touch Screen (analog/resistive), Blue-mode (4 levels)
- Specifically for SIMATIC S7-200:
Communication to the PLC is performed via the integrated interface over a point-to-point connection
- Connected to the PLC via MPI or PROFIBUS DP cable
- The SIMATIC TP 177micro is the innovative successor to the SIMATIC TP 070/TP 170micro Touch Panels



- Operator panel for operator control and monitoring of small machines and plants
- A new dimension in graphics: small and clever
- Pixel graphics 3" LCD, monochrome
- 8 system keys, 4 freely configurable function keys
- Specifically for SIMATIC S7-200:
Communication with the controller is point-to-point using the integral interface
- Connected to the PLC via MPI or PROFIBUS DP cable

Documentation (to be ordered separately)

Instruction manual OP 73micro, TP 177micro

- English **6AV66911DF010AB0**

User manual WinCC flexible Micro

- English **6AV66911AA010AB0**

Ordering Data

Order No.

SIMATIC TP 177micro

6AV66400CA110AX0

Touch Panel for connection to the SIMATIC S7-200, 5.7" STN display

Starter pack TP 177micro

6AV66500DA010AA0

comprising:

- TP 177micro touch panel
- SIMATIC WinCC flexible Micro engineering software
- SIMATIC HMI Manual Collection, 5 languages (English, German, French, Italian, Spanish) comprising all currently available user manuals, product manuals and communication manuals for SIMATIC HMI
- MPI cable (5 m)

Configuration

Configuring is carried out with the engineering software SIMATIC WinCC flexible Micro, Compact, Standard or Advanced.

WinCC flexible Micro engineering software

Single license

6AV66100AA011CA8

Upgrade single license

6AV66100AA011CE8

Importing of TP-Designer projects (TP 070) into WinCC flexible is not possible.

A PC/PPI adaptor cable is needed to download the configuration.

SIMATIC OP 73micro

6AV66400BA110AX0

Operator Panel for connecting to the SIMATIC S7-200, with 3" display, mono incl. installation accessories

Starter pack OP 73micro

6AV66500BA010AA0

comprising:

- Operator Panel OP 73micro
- SIMATIC WinCC flexible Micro engineering software
- SIMATIC HMI Manual Collection, 5 languages (English, German, French, Italian, Spanish), comprising all currently available user manuals, product manuals and communication manuals for SIMATIC HMI
- MPI cable (5 m)

Configuration

Configuring is carried out with the engineering software SIMATIC WinCC flexible Micro, Compact, Standard or Advanced.

WinCC flexible Micro engineering software

Single license

6AV66100AA011CA8

Upgrade single license

6AV66100AA011CE8

Importing of TP-Designer projects (TP 070) into WinCC flexible is not possible.

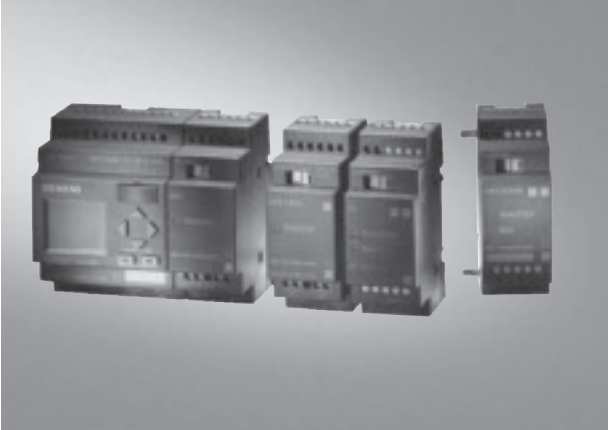
A PC/PPI adaptor cable is needed to download the configuration.

LOGO! Programmable Relay

Introduction

LOGO! programmable relay

Overview



LOGO! Programmable Relay

- The compact, easy-to-use and low-cost solution for simple control tasks
- Compact, easy to operate, universally applicable without accessories
- "All in one": Integrated display and operator panel
- 38 different functions can be linked by pressing a key or with PC software; up to a total of 200 blocks
- Functions can be changed easily at the touch of a button. No need for complex and time-consuming rewiring
- LOGO! TD 4-line backlit LCD, for text and numeric display, timer/counter set point changes, bar-graph and text ticker features



- The space-saving basic versions
- With interface for connection of expansion modules

| Ordering Data | Order No. | Order No. |
|--|-------------------------|---|
| <p>LOGO! 24</p> <p>Power supply 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A; 200 function blocks connectable, expandable by modular system</p> | 6ED10521CC000BA6 | |
| <p>LOGO! 12/24RC logic module</p> <p>Power supply 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used in analog mode (0 to 10 V), 4 relay outputs 10 A, integral time switch; 200 function blocks connectable, expandable by modular system</p> | 6ED10521MD000BA6 | |
| <p>LOGO! 24RC logic module</p> <p>Power supply 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch; 200 function blocks connectable, expandable by modular system</p> | 6ED10521HB000BA6 | |
| <p>LOGO! 230RC logic module</p> <p>Power supply 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integral time switch; 200 function blocks connectable, expandable by modular system</p> | 6ED10521FB000BA6 | |
| | | <p>Accessories</p> |
| | | <p>LOGO! Manual</p> <p>English</p> |
| | | 6ED10501AA000BE7 |
| | | <p>LOGO! Memory cards</p> <p>Memory only card, Battery card and Memory/Battery card. Supports copying and know-how protection</p> |
| | | 6ED10561DA000BA0 |
| | | 6ED10566XA000BA0 |
| | | 6ED10567DA000BA0 |
| | | <p>LOGO!Soft Comfort V6</p> <p>for programming on the PC in LAD/FBD; executes with Windows 98 onwards, Linux, MAC OSX; on CD-ROM</p> |
| | | 6ED10580BA020YA0 |
| | | <p>LOGO!Soft Comfort Upgrade</p> <p>V1.0 upwards to V6</p> |
| | | 6ED10580CA020YE0 |
| | | <p>LOGO! USB PC cable</p> <p>for program transmission between LOGO! and PC</p> |
| | | 6ED10571AA010BA0 |
| | | <p>LOGO! Modem Cable</p> <p>DB9 RS232 external modem connection</p> |
| | | 6ED10571CA000BA0 |
| | | <p>LOGO! Bus Expansion Cable</p> <p>2nd row expansion module cable</p> |
| | | 6ED10571BA000BA0 |
| | | <p>LOGO! Starter Kit, 12/24 V</p> <p>contains LOGO! 12/24RC, LOGO! PC-USB cable, LOGO!Soft Comfort V6, user manual, screwdriver</p> |
| | | 6ED10573BA000BA5 |
| | | <p>LOGO! Starter Kit, 230 V</p> <p>contains LOGO! 230RC, LOGO! PC-USB cable, LOGO!Soft Comfort V6, user manual, screwdriver</p> |
| | | 6ED10573AA020BA0 |
| | | <p>LOGO! 12/24RC_o & TD Starter Kit</p> <p>contains LOGO! 12/24RC_o, LOGO! TD w/2.5m cable, LOGO!Soft Comfort V6, PC-USB cable, user manual, and screwdriver</p> |
| | | 6ED10573BA100BA0 |

LOGO! Programmable Relay

LOGO! Modular

LOGO! modular pure variants

Overview



- The basic versions at optimum cost
- With integrated interface for connection of expansion modules

Ordering Data

Order No.

LOGO! 24o logic module

6ED10522CC000BA6

Power supply 24 V DC,
8 digital inputs 24 V DC, of which
4 can be used in analog mode (0
to 10 V),
4 digital outputs 24 V DC, 0.3 A;
without display and keyboard;
200 function blocks connectable,
expandable by modular system

LOGO! 12/24RCo logic module

6ED10522MD000BA6

Power supply 12/24 V DC,
8 digital inputs 12/24 V DC, of
which 4 can be used in analog
mode (0 to 10 V),
4 relay outputs 10 A,
integral time switch;
without display and keyboard;
200 function blocks connectable,
expandable by modular system

LOGO! 24RCo logic module

6ED10522HB000BA6

Power supply 24 V AC/DC,
8 digital inputs 24 V AC/DC,
4 relay outputs 10 A,
integral time switch;
without display and keyboard;
200 function blocks connectable,
expandable by modular system

LOGO! 230RCo logic module

6ED10522FB000BA6

Power supply 115/230 V AC/DC,
8 digital inputs 115/230 V AC/DC,
4 relay outputs 10 A,
integral time switch;
without display and keyboard;
200 function blocks connectable,
expandable by modular system

Order No.

Accessories

LOGO! Manual

English

6ED10501AA000BE7

LOGO! Memory cards

Memory only card, Battery card
and Memory/Battery card.
Supports copying and
know-how protection

6ED10561DA000BA0

6ED10566XA000BA0

6ED10567DA000BA0

LOGO!Soft Comfort V6

for programming on the PC in
LAD/FBD; executes with
Windows 98 onwards, Linux,
MAC OSX; on CD-ROM

6ED10580BA020YA0

LOGO!Soft Comfort Upgrade

V1.0 upwards to V6

6ED10580CA020YE0

LOGO! USB PC cable

for program transmission
between LOGO! and PC

6ED10571AA010BA0

LOGO! Modem Cable

DB9 RS232 external modem
connection

6ED10571CA000BA0

LOGO! Bus Expansion Cable

2nd row expansion module cable

6ED10571BA000BA0

LOGO! Starter Kit, 12/24 V

contains LOGO! 12/24RC,
LOGO! PC-USB cable,
LOGO!Soft Comfort V6, user
manual, screwdriver

6ED10573BA000BA5

LOGO! Starter Kit, 230 V

contains LOGO! 230RC, LOGO!
PC-USB cable,
LOGO!Soft Comfort V6, user
manual, screwdriver

6ED10573AA020BA0

LOGO! 12/24RCo & TD Starter Kit

contains LOGO! 12/24RCo,
LOGO! TD w/2.5m cable,
LOGO!Soft Comfort V6, PC-USB
cable, user manual, and
screwdriver

6ED10573BA100BA0

Overview



- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs or analog inputs and outputs

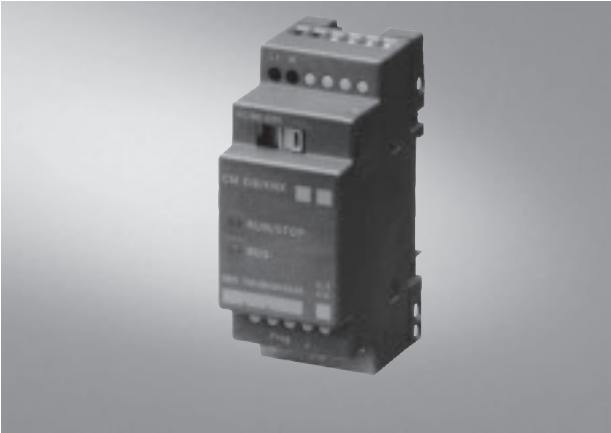
| Ordering Data | Order No. | Order No. |
|---|-------------------------|--|
| LOGO! DM8 24 24 V DC supply voltage, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A | 6ED10551CB000BA0 | |
| LOGO! DM8 12/24R 12/24 V DC supply voltage, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A | 6ED10551MB000BA1 | |
| LOGO! DM8 24R 24 V AC/DC supply voltage, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A | 6ED10551HB000BA0 | |
| LOGO! DM8 230R 115/230 V AC/DC supply voltage, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A | 6ED10551FB000BA1 | |
| LOGO! DM16 24 24 V DC supply voltage, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A | 6ED10551CB100BA0 | |
| LOGO! DM16 24R 24 V DC supply voltage, 8 digital inputs 24 V DC, 8 relay outputs 5 A | 6ED10551NB100BA0 | |
| LOGO! DM16 230R 115/230 V AC/DC supply voltage, 8 digital inputs 115/230 V AC/DC, 8 relay outputs 5 A | 6ED10551FB100BA0 | |
| LOGO! AM2 12/24 V DC supply voltage, 2 analog inputs 0 to 10 V or 0 to 20 mA, 10-bit resolution | 6ED10551MA000BA0 | |
| LOGO! AM2 PT 100 12/24 V DC supply voltage, 2 Pt100 analog inputs, tempera- ture range -50 °C to 200 °C | 6ED10551MD000BA0 | |
| LOGO! AM2 AQ 12/24 V DC supply voltage, 2 analog outputs 0 to 10 V, 10-bit resolution | 6ED10551MM000BA1 | |
| | | Accessories |
| | | LOGO! Manual English |
| | | 6ED10501AA000BE7 |
| | | LOGO! Memory cards Memory only card, Battery card and Memory/Battery card. Supports copying and know-how protection |
| | | 6ED10561DA000BA0 6ED10566XA000BA0 6ED10567DA000BA0 |
| | | LOGO!Soft Comfort V6 for programming on the PC in LAD/FBD; executes with Windows 98 onwards, Linux, MAC OSX; on CD-ROM |
| | | 6ED10580BA020YA0 |
| | | LOGO!Soft Comfort Upgrade V1.0 upwards to V6 |
| | | 6ED10580CA020YE0 |
| | | LOGO! USB PC cable for program transmission between LOGO! and PC |
| | | 6ED10571AA010BA0 |
| | | LOGO! Modem Cable DB9 RS232 external modem connection |
| | | 6ED10571CA000BA0 |
| | | LOGO! Bus Expansion Cable 2nd row expansion module cable |
| | | 6ED10571BA000BA0 |
| | | LOGO! Starter Kit, 12/24 V contains LOGO! 12/24RC, LOGO! PC-USB cable, LOGO!Soft Comfort V6, user manual, screwdriver |
| | | 6ED10573BA000BA5 |
| | | LOGO! Starter Kit, 230 V contains LOGO! 230RC, LOGO! PC-USB cable, LOGO!Soft Comfort V6, user manual, screwdriver |
| | | 6ED10573AA020BA0 |
| | | LOGO! 12/24RCo & TD Starter Kit contains LOGO! 12/24RCo, LOGO! TD w/2.5m cable, LOGO!Soft Comfort V6, PC-USB cable, user manual, and screwdriver |
| | | 6ED10573BA100BA0 |

LOGO! Programmable Relay

LOGO! Modular

LOGO! modular communication modules

Overview



Ordering Data

Order No.

LOGO! CM EIB KNX communication module

6BK17000BA000AA1

For connecting to *EIB*, 24 V DC supply voltage

- Expansion module for LOGO! basic versions
- For communication between LOGO! master and external *EIB* components through *EIB*

Overview



Ordering Data

Order No.

LOGO! CM AS-Interface communication module

3RK14000CE100AA2

An intelligent slave can be integrated into the AS-Interface system with the AS-Interface for LOGO!. The modular interface allows the different basic units to be integrated into the system depending on the required functionality. In addition, the functionality can be quickly and simply adapted to changed requirements by replacing the basic unit.

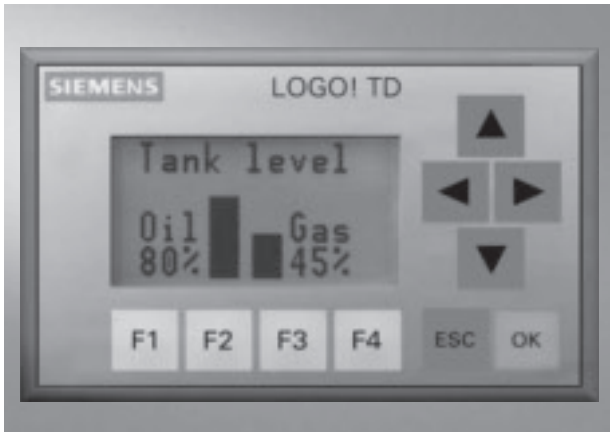
The interface provides four inputs and four outputs for the system. These I/Os, however, are not implemented in hardware, but are only virtually available via the interface.

LOGO! Programmable Relay

LOGO! Modular

LOGO! contact & LOGO! TD

Overview



Ordering Data

Order No.

LOGO!Contact

Module for direct switching of resistive consumers up to 20 A and motors up to 4 kW

Switching voltage 24 V

Switching voltage 230 V

6ED10574CA000AA0

6ED10574EA000AA0

- Switching module for the direct switching of resistive loads and motors

LOGO! TD Text Display

6ED10554MH000BA0

- 4-line backlit LCD, 128x64 pixel resolution
- 24 VDC/VAC input voltage, includes connecting cable (2.5M) & mounting hardware
- 6 screen navigation keys and 4 user function buttons
- Power-on screen and backlight activate function
- Text, numeric display and timer/counter set point changes
- Advanced bar-graph and text ticker features

LOGO! Programmable Relay

LOGO! Modular

LOGO! software

Overview



- The user-friendly software for creating control programs on a PC
- Creation of control programs in Control System Flowchart (CSF) or Ladder Diagram (LAD)
- Plus testing, simulation, online testing and archiving of control programs
- Professional documentation via numerous comment and print functions

Minimum system requirements

Windows 98, NT 4.0, ME, 2000 or XP

- Pentium PC
- 90 MB free disk space
- 64 MB RAM
- SVGA graphics card with minimum resolution 800x600 (256 colors)

Mac OS X

- PowerMac G3, G4, G4 Cube, iMac, PowerBook G3, G4 or iBook

Linux (tested using Caldera OpenLinux 2.4)

- Will function on all Linux distributions on which Java 2 SDK version 1.3.1 is running
- Please refer to your respective Linux distribution for the hardware requirements.

Ordering Data

Order No.

LOGO!Soft Comfort V6

For programming on the PC in LAD/SFC; executes on Windows 98 and higher, Linux, MAC OS X; on CD-ROM

6ED10580BA020YA0

LOGO!Soft Comfort Upgrade

V1.0 upwards to V6

6ED10580CA020YE0

SITOP Power Supplies

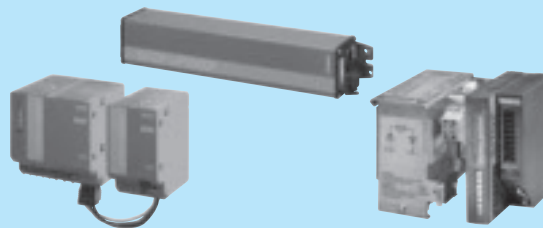
Switched Mode Regulated Technology

DC power supplies for single-phase applications from 9 watts to 100 watts



- Wide input voltage range meets worldwide single-phase networks
- Green LED for power OK indication
- Wide operating temperature range from -20° to +55° C
- Worldwide agency approvals allow universal applications

DC UPS solutions up to 960 watts



- A DC UPS maintains the 24 VDC output voltage for a selected period of time in case of a power loss
- Depending on the required back-up current and hold up time different DC UPS solutions are available
- Battery back-up to ride thru longer lasting power failures, or maintenance free capacitor back-up for applications, which require a defined shutdown of the process
- The DC UPS takes care of battery/capacitor management and provides monitoring functions to the upper level control system

24 VDC power supplies for single-phase applications from 60 watts to 960 watts



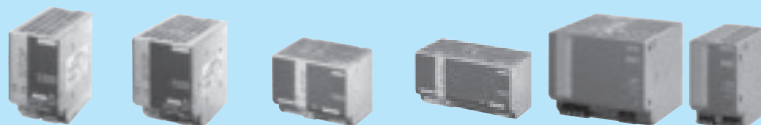
- Reduced width meets customers space requirements
- Power boost function allows to supply loads with high inrush current requirements
- Power security components can be added
- Use SITOP Smart if ATEX and/or UL Haz log is required
- Use SITOP Modular if a wide input voltage range or load sharing is needed
- SITOP Modular 5 and 10A units provide capability to be used for single and 3-phase networks in one unit

Power security components



- Signaling module provides monitoring of the input voltage and output voltage status of the power supply and remote power supply on/off switching capability from an upper level control system
- Electronic diagnostic module quickly identifies and isolates individual faulty 24 VDC load circuits in case shorts occur
- Buffer module protects against brownouts and short voltage fluctuations by maintaining 24 VDC up to 3 s
- Redundancy module creates a redundant power supply system if added to two parallel operating power supplies

24 VDC power supplies for 3-phase applications from 120 watts to 960 watts



- Available in 24 VDC from 5 A up to 40 A
- SITOP Modular 5 and 10 A units provide capability to be used for single and 3-phase networks in one unit
- Power boost function allows to supply loads with high inrush current requirements
- Power security components can be added
- Extremely robust due to metal housing and metal DIN rail clip
- SITOP Modular 20 and 40 A also available in space saving slim design

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

LOGO! Power,
single phase

Overview

LOGO! power supplies come in output voltages of 5 VDC, 12 VDC, 15 VDC, and 24 VDC. Each voltage comes in two different current levels with the exception of 24 VDC with three different current levels to choose from.

The primary switched mode power supplies can be used for a wide range of different applications: In automation systems for industrial and building applications, solar technology applications, measurement and control sensor applications and for supplying electronic circuits in TTL technology, etc.

Advantages of LOGO! power supplies:

- 2 performance classes, each with 5 VDC, 12 VDC and 15 VDC; 3 performances classes with 24 VDC
- Compact design with a width of 54 mm, 72 mm or 90 mm
- Flat step profile, ideal also for mounting in small distribution boards
- Design adapted to LOGO! microcontrollers
- Constant current in case of overloading, for reliable connection of difficult loads such as solenoids and DC motors
- Large setting range for the output voltage, using potentiometers which are easy to reach from the front
- Green LED indicator for "output voltage OK"
- For universal use – in industry and public low-voltage systems – worldwide
- Wide input voltage range from 85 to 264 VAC for virtually any single phase network in the world
- Large temperature range from –20 °C to +55 °C for universal use
- High EMC standards
- Extensive agency approvals and certifications according to CE, UL/cUL, FM and shipbuilding (GL and ABS)
- Constant regulated output voltage protects connected loads
- Parallel operation permitted to increase performance

Selection and ordering data

| Version | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Current rated value I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|------------------------------|--|-------------------------------------|------------------------------------|------------------------------|----|-----------------------|----------------------|-------------------|--------|-----|-----------------------------|
| Power supplies 5 VDC | | | | | | | | | | | |
| 3 A | 100 ... 240 V AC (85 ... 264 V) | 5 V DC ±3 % | 3 A | 54 x 90 x 55 | ▶ | 6EP1 311-1SH02 | | 1 | 1 unit | 401 | 0.170 |
| 6.3 A | 100 ... 240 V AC (85 ... 264 V) | 5 V DC ±3 % | 6.3 A | 72 x 90 x 55 | ▶ | 6EP1 311-1SH12 | | 1 | 1 unit | 401 | 0.250 |
| Power supplies 12 VDC | | | | | | | | | | | |
| 1.9 A | 100 ... 240 V AC (85 ... 264 V) | 12 V DC ±3 % | 1.9 A | 54 x 90 x 55 | ▶ | 6EP1 321-1SH02 | | 1 | 1 unit | 401 | 0.170 |
| 4.5 A | 100 ... 240 V AC (85 ... 264 V) | 12 V DC ±3 % | 4.5 A | 72 x 90 x 55 | ▶ | 6EP1 322-1SH02 | | 1 | 1 unit | 401 | 0.250 |
| Power supplies 15 VDC | | | | | | | | | | | |
| 1.9 A | 100 ... 240 V AC (85 ... 264 V) | 15 V DC ±3 % | 1.9 A | 54 x 90 x 55 | ▶ | 6EP1 351-1SH02 | | 1 | 1 unit | 401 | 0.170 |
| 4 A | 100 ... 240 V AC (85 ... 264 V) | 15 V DC ±3 % | 4 A | 72 x 90 x 55 | ▶ | 6EP1 352-1SH02 | | 1 | 1 unit | 401 | 0.250 |
| Power supplies 24 VDC | | | | | | | | | | | |
| 0.375 A | 48 ... 220 V DC (30 ... 264 V DC, 30 ... 187 V AC) | 24 V DC ±3 % | 0.375 A | 22.5 x 80 x 91 | ▶ | 6EP1 731-2BA00 | | 1 | 1 unit | 400 | 0.140 |
| 0.5 A | 120 ... 230 V AC (93 ... 264 V AC) | 24 V DC ±3 % | 0.5 A | 22.5 x 80 x 91 | ▶ | 6EP1 331-2BA10 | | 1 | 1 unit | 400 | 0.110 |
| 1.3 A | 100 ... 240 V AC (85 ... 264 V) | 24 V DC ±3 % | 1.3 A | 54 x 90 x 55 | ▶ | 6EP1 331-1SH02 | | 1 | 1 unit | 401 | 0.170 |
| 2.5 A | 100 ... 240 V AC (85 ... 264 V) | 24 V DC ±3 % | 2.5 A | 72 x 90 x 55 | ▶ | 6EP1 332-1SH42 | | 1 | 1 unit | 401 | 0.250 |
| 4 A | 100 ... 240 V AC (85 ... 264 V) | 24 V DC ±3 % | 4 A | 90 x 90 x 55 | ▶ | 6EP1 332-1SH51 | | 1 | 1 unit | 401 | 0.340 |



For other units and versions, see Catalog KT 10.1.

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

SITOP smart,
single-phase and three-phase






Overview

Small in size, big in performance. The SITOP smart series of power supplies is one third smaller in the width than its predecessor, while its overload behavior has been improved to short-time max. 150 % of the rated output current. Numerous agency approvals make the power supplies suitable for universal use worldwide.



- Choice of power levels from 60 watts to 240 watts for universal use
- Compact design with a width of only 32.5 mm, 50 mm and 70 mm for a small mounting surface
- Easy DIN rail mounting
- Smooth start up of loads with high inrush current such as DC/DC converters and motors

- Improved performance due to 120% overload capability for ambient temperatures up to 45 °C
- Adjustable output voltage range from 24 VDC to 28 VDC, using a potentiometer easily accessible from the front of the unit
- Parallel operation permitted to increase performance
- Extensive certifications according to UL, CSA, GL (German Lloyd), ATEX directives (Atmosphère Explosible) and class 1, div. 2
- For universal use – in industry and residential low-voltage systems – worldwide
- Can be combined with SITOP add-on modules: redundancy module, SITOP select diagnostic module, DC UPS with battery or capacitor back-up

Selection and ordering data

| | Version | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Rated current I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|--|-------------------------------------|------------------------------|------------------------------|----|-----------------------|----------------------|-------------------|--------|-----|--------------------------|
| | Power supplies 24 VDC | | | | | | | | | | | |
| | Limitation of input current harmonics according to EN 61000-3-2 | | | | | | | | | | | |
|  | 2.5 A | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 24 V DC ±3 % | 2 A | 32.5 x 125 x 125 | ▶ | 6EP1 332-2BA10 | | 1 | 1 unit | 400 | 0.320 |
| | Limitation of input current harmonics according to EN 61000-3-2 | | | | | | | | | | | |
|  | 5 A | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 24 V DC ±3 % | 5 A | 50 x 125 x 125 | ▶ | 6EP1 333-2BA01 | | 1 | 1 unit | 400 | 0.500 |
|  | 5 A | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 24 V DC ±3 % | 5 A | 50 x 125 x 125 | ▶ | 6EP1 333-2AA01 | | 1 | 1 unit | 400 | 0.500 |
| | Limitation of input current harmonics according to EN 61000-3-2 | | | | | | | | | | | |
|  | 10 A | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 24 V DC ±3 % | 10 A | 70 x 125 x 125 | ▶ | 6EP1 334-2BA01 | | 1 | 1 unit | 400 | 0.800 |
|  | 10 A | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 24 V DC ±3 % | 10 A | 70 x 125 x 125 | ▶ | 6EP1 334-2AA01 | | 1 | 1 unit | 400 | 0.750 |

The following SITOP versions provide solutions for applications with unusual voltages.

| | Version | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Rated current I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|--|--|-------------------------------------|------------------------------|------------------------------|----|-----------------------|----------------------|-------------------|--------|-----|--------------------------|
| | Power supplies 3 ... 52 VDC | | | | | | | | | | | |
| | Limitation of input current harmonics according to EN 61000-3-2; adjustable output voltage 3 ... 52 VDC, output max. 10 A or 120 W | | | | | | | | | | | |
|  | max. 10 A or 120 W | 120/230 V AC (85 ... 132 V/ 170 ... 264 V) | 3 ... 52 V DC ±1 % | 10 A | 75 x 125 x 125 | ▶ | 6EP1 353-2BA00 | | 1 | 1 unit | 400 | 0.900 |
| | Power supplies 48 VDC | | | | | | | | | | | |
| | Limitation of input current harmonics according to EN 61000-3-2 | | | | | | | | | | | |
|  | 10 A | 3Ph 400/480 VAC (360-550 V) | 48 V DC ±3 % | 10 A | 70 x 125 x 125 | A | 6EP1 456-2BA00 | | 1 | 1 unit | 400 | 1.200 |

For other units and versions, see Catalog KT 10.1.

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

**SITOP modular,
single-phase, two-phase and three-phase**

Overview







Compact basic units for single-phase, two-phase or three-phase connections and output currents from 5 A to 40 A form the basis of the SITOP Modular line. Depending on the requirements, SITOP power security components can be added.

The compact design of the primary switched mode power supply requires only a small mounting surface. The rugged metal enclosure is also suitable for the harshest industrial applications. The standard mounting rail fixture is made likewise of metal. Mounting is therefore fast, easy and vibration-proved. Reliability and quality are further characteristics of the electronic design.

The large input voltage range and the international agency approvals enable operation in virtually any network worldwide. The single-phase basic units 5 A and 10 A have an ultra-wide input voltage range up to 550 VAC, which even enables connection to 2 hot wires.

- DIN rail mounting
- 5 A and 10 A units with single-phase and two-phase connection (L1 and N, L1 and L2)
- Degree of noise suppression Class B
- Limitation of input current harmonics according to EN 61 000-3-2; (except 6EP1 337-3BA00)
- Adjustable output voltage up to 28.8 VDC
- 3-way status LED
- Selectable short-circuit response, automatic restart or user directed restart
- Parallel operation with load sharing permitted to increase performance or to create a redundant power supply
- 20 A and 40 A units with single-phase and three-phase connection
- 3-phase 20 and 40 A power supplies now also available in slim versions
- Can be combined with SITOP power security modules: signaling module, redundancy module, SITOP select diagnostic module, buffer module, DC UPS with battery or capacitor back-up

Selection and ordering data

| Version | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Rated current I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | |
|---|---------------------------------|--|---------------------------|------------------------------|-----------------|-----------|------------------------|-------------------|-----|--------|-----------------------------|-------|
| Power supplies 24 V | | | | | | | | | | | | |
|  6EP1 333-3BA00 | 5 A | 120/230 V ... 500 V AC (85 V ... 264 V/ 176 V ... 550 V) | 24 V DC ±3 % | 5 A | 70 x 125 x 125 | ▶ | 6EP1 333-3BA00* | | 1 | 1 unit | 400 | 1.200 |
|  6EP1 334-3BA00 | 10 A | 120/230 V ... 500 V AC (85 V ... 264 V/ 176 V ... 550 V) | 24 V DC ±3 % | 10 A | 90 x 125 x 125 | ▶ | 6EP1 334-3BA00* | | 1 | 1 unit | 400 | 1.400 |
|  6EP1 .36-3BA00 | 20 A | 120/230 V AC (85 V ... 132 V/ 176 V ... 264 V) | 24 V DC ±3 % | 20 A | 160 x 125 x 125 | ▶ | 6EP1 336-3BA00* | | 1 | 1 unit | 400 | 2.200 |
|  6EP1 436-3BA10 | 20 A | 3 AC 400 V ... 500 V (320 V ... 550 V) | 24 V DC ±3 % | 20 A | 160 x 125 x 125 | ▶ | 6EP1 436-3BA00* | | 1 | 1 unit | 400 | 2.000 |
|  6EP1 .37-3BA00 | 40 A | 120/230 V AC (85 V ... 132 V/ 176 V ... 264 V) | 24 V DC ±3 % | 40 A | 240 x 125 x 125 | ▶ | 6EP1 337-3BA00 | | 1 | 1 unit | 400 | 2.900 |
|  6EP1 437-3BA10 | 40 A | 3 AC 400 ... 500 V (320 ... 550 V) | 24 V DC ±3 % | 40 A | 240 x 125 x 125 | ▶ | 6EP1 437-3BA00* | | 1 | 1 unit | 400 | 3.200 |
| | 40 A | 3 AC 400 ... 500 V (320 ... 575 V) | 24 V DC ±3 % | 40 A | 150 x 125 x 150 | ▶ | 6EP1 437-3BA10 | | 1 | 1 unit | 400 | 3.400 |

*Also available in a SITOP Modular Plus version, which provides a coated PCB to enable the power supply for applications in rugged environments. More details for the SITOP Modular Plus Line can be found in the general SITOP power brochure or in the current catalog KT10.1

For other units and versions, see Catalog KT 10.1

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

Power security components

Overview

SITOP power security components help to minimize downtime and increase the efficiency of production

The signaling module can be snapped onto the left side of each SITOP modular power supply (with the exception of 6EP1 436-3BA10 & 6EP1 437-3BA10) and provides floating signaling contacts "Output voltage OK" and "Operator Readiness OK"; as well as a signal input for remote ON/OFF switching of the basic unit.



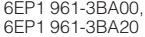

The redundancy module builds a redundant power supply by de-coupling two power supplies in parallel operation.

The electronic diagnostic module isolates and identifies faulty 24 VDC load circuits, while circuits without faults continue to operate normally. The electronic diagnostic module can be used with

every switched mode power supply and allows protecting up to 4 circuits per module. The tripping current of each circuit can be individually set between 2 to 10 A. In case an overload occurs in one of the protected load circuits an auxiliary contact provides status notification to the upper level control system. On the unit multi-color LEDs for each output immediately indicate the affected circuit.

The buffer module added to a SITOP Modular power supply is able to provide a maximum current back up for up to 3 s (for example: 100 ms at 40 A load current up to 800 ms at 5A load current). It is the ideal solution for brownouts or short voltage fluctuations.

Selection and ordering data

| | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Rated current I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|------------------------------------|-------------------------------------|------------------------------|---------------------------------|----|-----------------------|-------------------------|----------------------------|--------|-----|-----------------------------------|
|  | -- | -- | -- | 25 x 125 x 125 | ▶ | 6EP1 961-3BA10 | | 1 | 1 unit | 400 | 0.150 |
|  | 24 V DC (24 V ... 28.8 V) | U_e -- approx. 0.5 V | 20 A | 70 x 125 x 125 | ▶ | 6EP1 961-3BA20 | | 1 | 1 unit | 400 | 1.000 |
|  | 24 V DC (24 V ... 28.8 V) | 23.5 V DC | 2 A ... 10 A | 72 x 90 x 90 | ▶ | 6EP1 961-2BA00 | | 1 | 1 unit | 400 | 0.400 |
|  | 24 V DC (24 V ... 28.8 V) | U_e -- approx. 1 V | 40 A | 70 x 125 x 125 | ▶ | 6EP1 961-3BA00 | | 1 | 1 unit | 400 | 1.200 |

For other units and versions, see Catalog KT 10.1.

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

Uninterruptible 24VDC solutions

Overview





A DC UPS option can be added to 24 VDC SITOP power supplies to back up critical control circuits against longer lasting power failures. There are two different back up solutions available:

Back up with battery modules, which allow extended hold up times in the minute/ hour range or back-up with maintenance-free double-layer capacitors in the second/ minute range. The realizable back-up time depends on the required back up current. Battery back up is the more preferred solution if the requirement is to ride through power disruption and to avert slightest process blips. Back up with capacitors is chosen for applications, which require a defined shutdown with the proper saving of vital process data (for example orderly shut down of industrial PCs).

Battery management is part of all battery based DC UPS modules and assures the maximum service life of lead gel batteries.

Double layer capacitors, which are part of the maintenance free SITOP UPS 500 modules, provide a substantially longer service life as batteries even in ambient temperature environments of 50 to 60 °C. Back up with capacitors has also the benefit that there are no restrictions to use them in a control cabinet since there is no risk of gas build-up in normal operation or after a fault. The hold up time of the basic unit SITOP UPS 500S can be extended with up to 3 extension modules SITOP UPS 501S hooked up in parallel connection. For applications, which require a higher degree of protection, a SITOP DC UPS 501P in degree of protection IP 65 can be selected. A connector set, which includes a connector for input, output and pre-assembled USB cable, needs to be ordered separately.










Selection and ordering data

| Version | Input Rated voltage U_e Rated | Output Rated voltage U_a Rated | Rated current I_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | |
|---|---------------------------------------|-------------------------------------|--|------------------------------|------------------|-----------|-----------------------|-------------------|-----|--------|-----------------------------|-------|
| DC UPS modules for battery back-up | | | | | | | | | | | | |
|  6EP1 931-2.C.. | 6 A | 24 V DC (22 ... 29 V) | 24 V DC (mains operation: 21.5 V ... 28.5 V, battery operation: 27.0 V ... 18.5 V) | 6 A | 50 x 125 x 125 | ▶ | 6EP1 931-2DC21 | | 1 | 1 unit | 400 | 0.400 |
| | With serial interface | | | | 50 x 125 x 125 | ▶ | 6EP1 931-2DC31 | | 1 | 1 unit | 400 | 0.450 |
| | With USB interface | | | | 50 x 125 x 125 | ▶ | 6EP1 931-2DC42 | | 1 | 1 unit | 400 | 0.450 |
|  | 15 A | 24 V DC (22 ... 29 V) | 24 V DC (mains operation: 21.5 V ... 28.5 V, battery operation: 27.0 V ... 18.5 V) | 15 A | 50 x 125 x 125 | ▶ | 6EP1 931-2EC21 | | 1 | 1 unit | 400 | 0.400 |
| | With serial interface | | | | 50 x 125 x 125 | ▶ | 6EP1 931-2EC31 | | 1 | 1 unit | 400 | 0.450 |
| | With USB interface | | | | 50 x 125 x 125 | ▶ | 6EP1 931-2EC42 | | 1 | 1 unit | 400 | 0.450 |
|  6EP1 931-2FC.. | 40 A | 24 V DC (22 ... 29 V) | 24 V DC (mains operation: 21.5 V ... 28.5 V, battery operation: 27.0 V ... 18.5 V) | 40 A | 102 x 125 x 125 | ▶ | 6EP1 931-2FC21 | | 1 | 1 unit | 400 | 1.100 |
| | With USB interface | | | | 102 x 125 x 125 | ▶ | 6EP1 931-2FC42 | | 1 | 1 unit | 400 | 1.100 |
| Back-up of 12 VDC circuits | | | | | | | | | | | | |
|  6EP1 621-2BA00 | DC/DC converter 24/12VDC/2.5 A | 24 V DC (18.5 ... 30.2V) | 12 V DC (12 ... 14V) | 2.5 A | 32.5 x 125 x 125 | | 6EP1 621-2BA00 | | 1 | 1 unit | 400 | 0.320 |

6EP Regulated Power Supplies

SITOP 6EP Power Supplies

Uninterruptible 24VDC solutions

| Version | Charging voltage At +25 °C U_{Charge} | Output Rated voltage U_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|--|---|------------------------------------|-----------------------|----------------------------|----------------------------|--------|-----|---------------------------------------|
| Battery modules | | | | | | | | | | |
| <i>For DC UPS modules 6 A and 15 A</i> | | | | | | | | | | |
|  6EP1 935-6MC01 | 1.2 Ah | 27.0 V DC | 24 V DC (end of charge voltage: 27.0 V, exhaustive dis- charge protection: 18.5 V) | 96 x 106 x 108 ▶ | 6EP1 935-6MC01 | | 1 | 1 unit | 400 | 1.650 |
|  6EP1 935-6MD31 | 2.5 Ah/ high temperature rechargeable battery | 27.7 V DC | 24 V DC (end of charge voltage: 27.7 V, exhaustive dis- charge protection: 18.5 V) | 265 x 151 x 91 ▶ | 6EP1 935-6MD31 | | 1 | 1 unit | 400 | 3.800 |
|  6EP1 935-6MD11 | 3.2 Ah | 27.0 V DC | 24 V DC (end of charge voltage: 27.0 V, exhaustive dis- charge protection: 18.5 V) | 190 x 151 x 82 ▶ | 6EP1 935-6MD11 | | 1 | 1 unit | 400 | 3.200 |
| <i>For DC UPS modules 6 A to 40 A</i> | | | | | | | | | | |
|  6EP1 935-6ME21 | 7 Ah | 27.0 V DC | 24 V DC (end of charge voltage: 27.0 V, exhaustive dis- charge protection: 18.5 V) | 186 x 168 x 121 ▶ | 6EP1 935-6ME21 | | 1 | 1 unit | 400 | 6.000 |
|  6EP1 935-6MF01 | 12 Ah | 27.0 V DC | 24 V DC (end of charge voltage: 27.0 V, exhaustive dis- charge protection: 18.5 V) | 253 x 168 x 121 ▶ | 6EP1 935-6MF01 | | 1 | 1 unit | 400 | 9.000 |
| Version | Input Rated voltage At +25 °C U_e Rated | Output Rated voltage U_a Rated | Dimensions (W x H x D) mm | DT | Order No. | List Price \$ per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
| DC UPS modules with integrated capacitor back-up | | | | | | | | | | |
|  6EP1 933-2EC41 | DC UPS 500S 15A, 2.5 KWs | 24 V DC (22...29 VDC) | 24 V DC ±3 % | 120 x 125 x 125 ▶ | 6EP1 933-2EC41 | | 1 | 1 unit | 400 | 1.000 |
|  6EP1 933-2EC51 | DC UPS 500S 15A, 5 KWs | 24 V DC (22...29 VDC) | 24 V DC ±3 % | 120 x 125 x 125 ▶ | 6EP1 933-2EC51 | | 1 | 1 unit | 400 | 1.000 |
|  6EP1 935-5PG01 | DC UPS 501S Expansion Module, 5 KWs | | | 70 x 125 x 125 ▶ | 6EP1 935-5PG01 | | 1 | 1 unit | 400 | 0.700 |
|  6EP1 933-2NC11 | DC UPS 50P 7A, 10 KWs | 24 V DC (22...29 V DC) | 24 V DC ±3 % | 470 w/o con- nector x 80 x 80 ▶ | 6EP1 933-2NC11 | | 1 | 1 unit | 400 | 2.200 |
| | Connector set for SITOP UPS 500P | | | 2 m length ▶ | 6EP1 975-2ES00 | | 1 | 1 unit | 400 | 0.500 |

For other units and versions, see Catalog KT 10.1.

6EP Regulated Power Supplies

Notes

