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Introduction

The product range at a glance

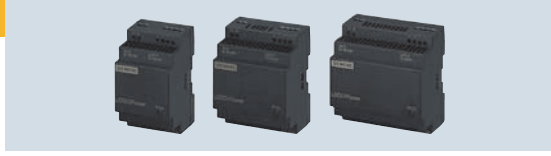
SITOP compact

The slim power supply unit for control boxes



LOGO!Power

The flat power supply unit for distribution boards



SITOP lite

The low-cost basic power supply



SITOP smart

The powerful standard power supply



SITOP modular

The technology power supply for demanding solutions

Power supply system SITOP PSU8600 with Ethernet/PROFINET and complete integration in TIA



SITOP power supplies in SIMATIC design

The optimum supply for SIMATIC S7 and more



SITOP in special designs, made for special tasks

Well prepared for special tasks and conditions



Expansion modules

Redundancy modules

Protection against failure of a power supply by means of redundant configuration of the power supply unit

Selectivity modules

Protection against overload and short circuit by means of electronic protection of 24 V feeds

Buffer module

Protection against power failure for a few seconds



SITOP DC UPS

SITOP UPS500 with capacitors

Protection against power failure on the input side through buffering for a few minutes

SITOP UPS1600 with battery modules

Protection against power failure on the input side through buffering for a few hours.

DC UPS with Ethernet/PROFINET – open and integrated in TIA



Overview

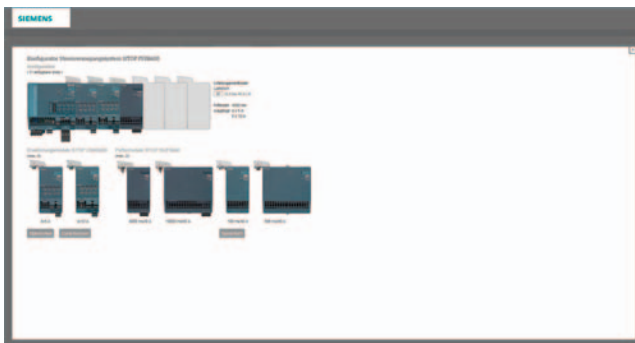
SITOP Selection Tool - get to the right power supply simply and quickly

With the SITOP Selection Tool, you can select not only your DC power supply, but now also the appropriate uninterruptible power supply (DC UPS) with capacitor or battery technology. Entering just a few technical specifications will automatically select the relevant parameters and show the matching products. Selection parameters can be changed at any time.

You can individually configure the PSU8600 power supply system using drag-and-drop to select additional modules for extra outputs or add-on modules for bridging power failures, for example. With the help of mandatory fields such as load current, buffer time and buffer voltage, an appropriate DC UPS is selected and then displayed with its performance characteristics.

The Selection Tool checks the reliability of each production selection or configuration automatically. The user can then save the selected products in the product list and export the list, including performance data, into several file formats, or directly to the Industry Mall shopping cart. More detailed information about the selected products can be found in the form of product data sheets, 3D data and operating instructions. The product data can also be requested directly by means of the CAX Download Manager.

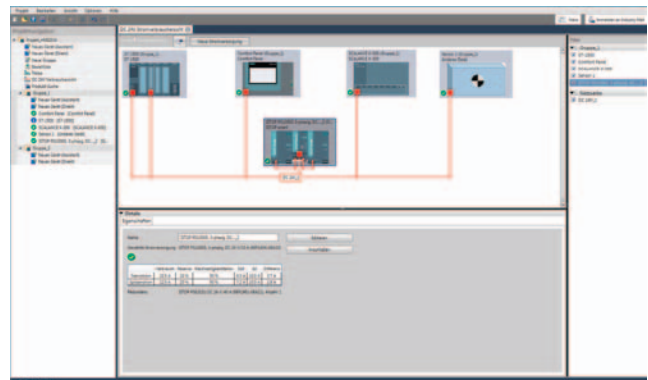
The tool is available on the Internet and in the Industry Mall:
www.siemens.com/sitop-selection-tool
www.siemens.com/industrymall



Selection assistant for the SITOP PSU8600 power supply system

TIA Selection Tool - makes it easy to choose the right power supply for 24 V loads

The "24 V DC power consumer view" of the TIA Selection Tool shows all automation products with 24 V infeed which have already been selected. Using drag-and-drop, the loads can be connected to one or more SITOP power supplies. The total of the required rated and peak currents is automatically calculated and taken into account when selecting power supplies. Other loads such as sensors or actuators which were not selected with the Tool can also be assigned. Only those power supplies are offered which supply the total power demand of the load to be supplied. It is also possible to define additional power reserves for other loads, rated diversity factors or redundant designs. Finally, the required power supplies are transferred into the order list in the Industry Mall and any additional product data can be requested from the CAX Download Manager.



24 V DC power consumer view of the TIA Selection Tool

For more information about the "24 V DC power consumer view" of the TIA Selection Tool, visit:
www.siemens.com/sitop-tst

Introduction

Selection tables for power supplies

Part number selection table

	Input voltage	Output current	SITOP compact	LOGO!Power	SITOP lite	SITOP smart	
Output voltage 24 V DC	1-phase AC						
	1-phase 120 V AC, 230 V AC	0.6 A	6EP1331-5BA00				
		1.3 A	6EP1331-5BA10		6EP1331-1SH03		
		2 A					
		2.5 A	6EP1332-5BA00		6EP1332-1SH43	6EP1332-1LB00	6EP1332-2BA20
		3 A					
		3.7 A	6EP1332-5BA20				
		4 A	6EP1332-5BA10		6EP1332-1SH52		
		5 A				6EP1333-1LB00	6EP1333-2BA20
		6.2 A					
		8 A					
		10 A				6EP1334-1LB00	6EP1334-2BA20 6EP1334-2AA01-0AB0
		12.5 A					
		20 A				6EP1336-1LB00	6EP1336-2BA10
		40 A					
	1-phase DC						
	48 ... 220 V	0.375 A					
	48 ... 110 V	2 A					
	24 ... 110 V	2 A					
	110 ... 300 V	0.6 A	6EP1331-5BA00		6EP3330-6SB00-0AY0		
		1.3 A	6EP1331-5BA10		6EP1331-1SH03		
		2.5 A	6EP1332-5BA00		6EP1332-1SH43		
		3.7 A	6EP1332-5BA20				
4 A		6EP1332-5BA20		6EP1332-1SH52			
300 ... 900 V	20 A						
3-phase AC							
3-phase 400 – 500 V AC	5 A					6EP1433-2BA20	
	8 A						
	10 A					6EP1434-2BA20	
	17 A						
	20 A					6EP1436-2BA10	
	20 A / 4 x 5 A						
	30 A						
	40 A					6EP1437-2BA20	
	40 A / 4 x 10 A						
Output voltage 5, 12, 15, 48, ... V DC	1-phase AC						
	1-phase 120 V AC, 230 V AC	5 V/3 A			6EP1311-1SH03		
		5 V/6.3 A			6EP1311-1SH13		
		12 V/1.9 A			6EP1321-1SH03		
		12 V/2.0 A	6EP1321-5BA00				
		12 V/3.0 A					
		12 V/4.5 A			6EP1322-1SH03		
		12 V/6.5 A	6EP1322-5BA10				
		12 V/7 A					6EP1322-2BA00
		12 V/8.3 A					
		12 V/14 A					6EP1323-2BA00
		15 V/1.9 A			6EP1351-1SH03		
		15 V/4 A			6EP1352-1SH03		
		3 – 52 V/2 – 10 A					
		2 x 15 V/3.5 A					
	1-phase DC						
	24 V	12 V/2.5 A					
	110 ... 300 V	5 V/3 A			6EP1311-1SH03		
		5 V/6.3 A			6EP1311-1SH13		
		12 V/1.9 A			6EP1321-1SH03		
		12 V/2 A	6EP1321-5BA00				
		12 V/4.5 A			6EP1322-1SH03		
		12 V/6.5 A	6EP1322-5BA10				
15 V/1.9 A				6EP1351-1SH03			
15 V/4 A				6EP1521-1SH03			
3-phase AC							
400 ... 500 V	12 V/20 A						
	36 V/13 A						
	48 V/10 A						
	48 V/20 A						

Introduction

Selection tables for power supplies

Part number selection table (cont.)

	Input voltage	Output current	SITOP modular	SIMATIC Design	“Special design, special use”	
Output voltage 24 V DC	1-phase AC					
	1-phase 120 V AC, 230 V AC	0.6 A				
		1.3 A				
		2 A			6ES7307-1BA01-0AA0	6EP1331-1LD00 (2.1 A)
		2.5 A	6EP1332-1SH71		6EP1332-1SH71	
		3 A			6EP1332-4BA00	6EP1332-1LD00 (3.1 A)
		3.7 A				
		4 A				6EP1332-1LD10 (4.1 A)
		5 A	6EP3333-8SB00-0AY0 6EP1333-3BA10		6ES7307-1EA01-0AA0 6ES7307-1EA80-0AA0	6EP1333-1AL12 6EP1333-7CA00 6EP1333-1LD00
		6.2 A				6EP1333-1LD00
		8 A			6EP1333-4BA00	6EP1334-7CA00
		10 A	6EP3334-8SB00-0AY0 6EP1334-3BA10		6ES7307-1KA02-0AA0	6EP1334-1AL12
		12.5 A				6EP1334-1LD00
		20 A	6EP1336-3BA10			
		40 A	6EP3337-8SB00-0AY0 6EP1337-3BA00			
		1-phase DC				
	48 ... 220 V	0.375 A				6EP1731-2BA00
	48 ... 110 V	2 A				6EP1732-0AA00
	24 ... 110 V	2 A		6ES7305-1BA80-0AA0		
	110 ... 300 V	0.6 A				
		1.3 A				
		2.5 A				
		3.7 A				
		4 A				
	300 ... 900 V	20 A				6EP1536-3AA00
	3-phase AC					
	3-phase 400 – 500 V AC	5 A	6EP1333-3BA10 ¹⁾			
		8 A			6ES7148-4PC00-0HA0	6ES7 148-4PC00-0HA0
		10 A	6EP1334-3BA10 ¹⁾			
		17 A				
		20 A	6EP3436-8SB00-0AY0 6EP3436-8SB00-2AY0			
		20 A / 4 x 5 A	6EP3436-8MB00-2CY0			
		30 A				6EP1437-3BA20
40 A		6EP1437-3BA10				
		6EP3437-8SB00-2AY0				
40 A / 4 x 10 A		6EP3437-8MB00-2CY0				
Output voltage 5, 12, 15, 48, ... V DC	1-phase AC					
	1-phase 120 V AC, 230 V AC	5 V/3 A				
		5 V/6.3 A				
		12 V/1.9 A				
		12 V/2.0 A				
		12 V/3.0 A				6EP1321-1LD00
		12 V/4.5 A				
		12 V/6.5 A				
		12 V/7 A				
		12 V/8.3 A				6EP1322-1LD00
		12 V/14 A				
		15 V/1.9 A				
		15 V/4 A				
		3 – 52 V/2 – 10 A				6EP1353-2BA00
		2 x 15 V/3.5 A				6EP1353-0AA00
		1-phase DC				
	24 V	12 V/2.5 A				6EP1621-2BA00
	110 ... 300 V	5 V/3 A				
		5 V/6.3 A				
		12 V/1.9 A				
		12 V/2 A				
		12 V/4.5 A				
		12 V/6.5 A				
		15 V/1.9 A				
	15 V/4 A					
	3-phase AC					
	400 ... 500 V	12 V/20 A				6EP3424-8UB00-0AY0
		36 V/13 A	6EP3446-8SB10-0AY0			
		48 V/10 A	6EP1456-3BA00			
		48 V/20 A	6EP1457-3BA00			

1) Connection to 2 phases 230 – 500 V AC – see data sheet SITOP modular 1-/2-phase

Overview

*The slim power supply unit for control boxes*

The single-phase SITOP compact are power supplies for the lower performance range. Thanks to the extremely space-saving slim design, they are especially suited to distributed applications in control boxes or in small control cabinets. The series is characterized by low power losses throughout the entire load range. The losses are extremely low even during idling, which means they are perfectly suited for applications that are frequently in stand-by mode. The SITOP PSU100C power supplies have a wide-range input for AC and DC networks; plug-in terminals facilitate the electrical connection.

To further increase the 24 V availability, the SITOP compact power supplies can be combined with **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 24 V DC/ 0.6 A, 1.3 A, 2.5 A, and 4 A as well as 12 V DC/ 2 A and 6.5 A
- 24 V DC/3.7 A for the supply of NEC class 2 circuits with limited output power (100 VA)
- 1-phase wide-range input from 85 V to 264 V AC or 110 V to 300 V DC
- Small mounting surface thanks to its slim design
- High efficiency across the entire load range: up to 28 % energy savings in comparison with similar devices
- Low energy consumption during no-load operation or stand-by: Energy savings of up to 53 % are possible
- Adjustable output voltage for compensating voltage drops
- Green LED for "Output voltage OK"
- Plug-in connecting terminals for pre-fabricated wiring and fast electrical connection
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as UL, ATEX or GL

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

SITOP compact

1-phase, 12 V DC

Overview



The single-phase SITOP compact are power supplies for the lower performance range. Thanks to the extremely space-saving slim design, they are especially suited to distributed applications in control boxes or in small control cabinets. The series is characterized by low power losses throughout the entire load range. The losses are extremely low even during idling, which means they are perfectly suited for applications that are frequently in stand-by mode. The SITOP PSU100C power supplies have a wide-range input for AC and DC networks; plug-in terminals facilitate the electrical connection.

Main product highlights

- 12 V DC, 2 A and 6.5 A
- 1-phase wide-range input from 85 V to 264 V AC or 110 V to 300 V DC
- Small mounting surface thanks to its slim design
- High efficiency across the entire load range.
- Low energy consumption during no-load operation or stand-by
- Adjustable output voltage for compensating voltage drops
- Green LED for "12 V OK"
- Plug-in connecting terminals for pre-fabricated wiring and fast electrical connection
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as UL, ATEX or GL

Ordering data**Article No.****SITOP PSU100C 1-phase,
12 V DC/2 A****6EP1321-5BA00**

Stabilized power supply
 Input:
 100 ... 230 V AC (110 ... 300 V DC)
 Output: 12 V DC/2 A

**SITOP PSU100C 1-phase,
12 V DC/6.5 A****6EP1322-5BA10**

Stabilized power supply
 Input:
 100 ... 230 V AC (110 ... 300 V DC)
 Output: 12 V DC/6.5 A

Accessories**Article No.****SITOP Power PSU100C
accessories****6EP1971-5BA00**

Removable spring-loaded terminal,
 100 units, for SITOP PSU100C

Overview



The single-phase SITOP compact are power supplies for the lower performance range. Thanks to the extremely space-saving slim design, they are especially suited to distributed applications in control boxes or in small control cabinets. The series is characterized by low power losses throughout the entire load range. The losses are extremely low even during idling, which means they are perfectly suited for applications that are frequently in stand-by mode. The SITOP PSU100C power supplies have a wide-range input for AC and DC networks; plug-in terminals facilitate the electrical connection.

To further increase the 24 V availability, the SITOP compact power supplies can be combined with **DC UPS, redundancy** and **selectivity modules**.

Main product highlights

- 24 V DC/ 0.6 A, 1.3 A, 2.5 A and 4 A
- 24 V DC/3.7 A for the supply of NEC class 2 circuits with limited output power (100 VA)
- 1-phase wide-range input from 85 V to 264 V AC or 110 V to 300 V DC
- Small mounting surface thanks to its slim design
- High efficiency across the entire load range.
- Low energy consumption during no-load operation or stand-by
- Adjustable output voltage for compensating voltage drops (starting at 1.3 A)
- Green LED for "24 V OK"
- Plug-in connecting terminals for pre-fabricated wiring and fast electrical connection
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as UL, ATEX or GL

Ordering data**Article No.****SITOP PSU100C 1-phase,
24 V DC/0.6 A**

6EP1331-5BA00

Stabilized power supply
Input:
100 ... 230 V AC (110 ... 300 V DC)
Output: 24 V DC/0.6 A

**SITOP PSU100C 1-phase,
24 V DC/1.3 A**

6EP1331-5BA10

Stabilized power supply
Input:
100 ... 230 V AC (110 ... 300 V DC)
Output: 24 V DC/1.3 A

**SITOP PSU100C 1-phase,
24 V DC/2.5 A**

6EP1332-5BA00

Stabilized power supply
Input:
100 ... 230 V AC (110 ... 300 V DC)
Output: 24 V DC/2.5 A

**SITOP PSU100C 1-phase,
24 V DC/3.7 A**

6EP1332-5BA20

Stabilized power supply
Input:
100 ... 230 V AC (110 ... 300 V DC)
Output: 24 V DC/3.7 A
limited output power NEC Class 2

**SITOP PSU100C 1-phase,
24 V DC/4 A**

6EP1332-5BA10

Stabilized power supply
Input:
100 ... 230 V AC (110 ... 300 V DC)
Output: 24 V DC/4 A

Accessories**Article No.****SITOP PSE202U
redundancy module**

6EP1962-2BA00

Input/output: 24 V DC/NEC Class 2
suitable for decoupling two SITOP
power supplies output power
limited < 100 VA

**SITOP PSE202U
redundancy module**

6EP1964-2BA00

Input/output: 24 V DC/10 A
suitable for decoupling two SITOP
power supplies
with a maximum of 5 A output
current

**SITOP PSE200U 3 A
selectivity module**

4-channel selectivity module
Input: 24 V DC
Output: 24 V DC/3A per each
channel
output current adjustable 0.5 ... 3 A

- With common alarm signal
- With single-channel signaling

6EP1961-2BA11
6EP1961-2BA31**SITOP Power PSU100C
accessories**

6EP1971-5BA00

Removable spring-loaded terminal,
100 units, for SITOP PSU100C

Overview



The flat power supply unit for distribution boards

Our miniature power supply units in the same design as the logic modules offer great performance in the smallest space: The excellent efficiency across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

To further increase the 24 V availability, the LOGO!Power power supplies can be combined with **DC UPS, redundancy and selectivity modules**.

Main product highlights

- 5 V DC/ 3 A and 6.3 A, 12 V DC/ 1.9 A and 4.5 A, 15 V DC/ 1.9 A and 4 A as well as 24 V DC/ 1.3 A, 2.5 A and 4 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



Our miniature power supply units in the same design as the logic modules offer great performance in the smallest space: The excellent efficiency across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

Main product highlights

- 5 V DC/ 3 A and 6.3 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

Ordering data

Article No.

LOGO!Power 1-phase, 5 V DC/3 A

Stabilized power supply
 Input:
 100 ... 240 V AC (110 ... 300 V DC)
 Output: 5 V DC/3 A

6EP1311-1SH03

LOGO!Power 1-phase, 5 V DC/6.3 A

Stabilized power supply
 Input:
 100 ... 240 V AC (110 ... 300 V DC)
 Output: 5 V DC/6.3 A

6EP1311-1SH13

Overview



Our miniature power supply units in the same design as the logic modules offer great performance in the smallest space: The excellent efficiency across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

Main product highlights

- 12 V DC, 1.9 A and 4.5 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

Ordering data

Article No.

**LOGO!Power 1-phase,
12 V DC/1.9 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 12 V DC/1.9 A

6EP1321-1SH03**LOGO!Power 1-phase,
12 V DC/4.5 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 12 V DC/4.5 A

6EP1322-1SH03

Overview



Our miniature power supply units in the same design as the logic modules offer great performance in the smallest space: The excellent efficiency across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

Main product highlights

- 15 V DC/ 1.9 A and 4 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, ATEX, cCSAus Class I Div. 2, GL and ABS

Ordering data**Article No.****LOGO!Power 1-phase,
15 V DC/1.9 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 15 V DC/1.9 A

6EP1351-1SH03**LOGO!Power 1-phase,
15 V DC/4 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 15 V DC/4 A

6EP1352-1SH03

Overview



Our miniature power supply units in the same design as the logic modules offer great performance in the smallest space: The excellent efficiency across the entire load range, and the low power losses in no-load operation ensure efficient operation. The wide-range input for 1-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use. These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

To further increase the 24 V availability, the LOGO!Power power supplies can be combined with **DC UPS, redundancy** and **selectivity modules**.

Main product highlights

- 24 V DC/ 1.3 A, 2.5 A, and 4 A
- 1-phase, wide-range input for 85 V to 264 V AC or 110 V to 300 V DC
- Flat LOGO! design with an installation depth of only 55 mm
- High efficiency across the entire load range, low no-load losses
- Power reserve on starting up through 1.5 times the rated current for capacitive loads
- Wide temperature range from -20 to +70 °C
- Comprehensive certifications, such as cULus, CB, FM, SEMI F47, ATEX, CCSAus Class I Div. 2, GL, ABS, DNV, BV and LRS

Ordering data**Article No.****LOGO!Power 1-phase, 24 V DC/1.3 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 24 V DC/1.3 A

6EP1331-1SH03**LOGO!Power 1-phase, 24 V DC/2.5 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 24 V DC/2.5 A

6EP1332-1SH43**LOGO!Power 1-phase, 24 V DC/4 A**

Stabilized power supply
Input:
100 ... 240 V AC (110 ... 300 V DC)
Output: 24 V DC/4 A

6EP1332-1SH52**Accessories****Article No.****SITOP PSE202U redundancy module**

Input/output:
24 V DC/NEC Class 2
suitable for decoupling two SITOP power supplies output power limited < 100 VA

6EP1962-2BA00**SITOP PSE202U redundancy module**

Input/output:
24 V DC/10 A
suitable for decoupling two SITOP power supplies with a maximum of 5 A output current

6EP1964-2BA00**SITOP PSE200U 3 A selectivity module**

4-channel selectivity module
Input: 24 V DC
Output: 24 V DC/3A per each channel output current adjustable 0.5 ... 3 A

- With common alarm signal
- With single-channel signaling

6EP1961-2BA11
6EP1961-2BA31

SITOP lite

1-phase, 24 V

Overview



The single-phase SITOP lite power supplies are designed for basic requirements in industrial environments and offer all the key functions at an attractive price. Thanks to the slim design, the power supplies require little space on the standard mounting rail, and their excellent efficiency ensures low thermal losses in the control cabinet.

To further increase 24 V availability, the SITOP lite power supplies can be combined with **DC UPS, redundancy and selectivity modules**.

Main product highlights

- 24 V DC/ 2.5 A, 5 A and 10 A
- 1-phase wide-range input with manual switchover
- Slim design - no lateral installation clearances required
- High degree of efficiency
- Green LED for "24 V OK"
- Adjustable output voltage for compensating voltage drops
- Parallel connection possible
- Ambient temperature range of 0 °C to 60 °C (above 45 °C with derating)
- Short-circuit and overload protection
- Certification to CE, cULus and CD

Ordering data	Article No.	Accessories	Article No.
SITOP PSU100L 1-phase, 24 V DC/2.5 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/2.5 A	6EP1332-1LB00	SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies output power limited < 100 VA	6EP1962-2BA00
SITOP PSU100L 1-phase, 24 V DC/5 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/5 A	6EP1333-1LB00	SITOP PSE202U redundancy module Input/output: 24 V DC/10 A suitable for decoupling two SITOP power supplies with a maximum of 5 A output current	6EP1964-2BA00
SITOP PSU100L 1-phase, 24 V DC/10 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/10 A	6EP1334-1LB00	SITOP PSE200U 3 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/3A per each channel output current adjustable 0.5 ... 3 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA11 6EP1961-2BA31
		SITOP PSE200U 10 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA21 6EP1961-2BA41

Overview

*The powerful standard power supply*

The one-phase and three-phase SITOP smart are the universal and powerful standard power supplies for machinery and plant engineering. Despite their compact design, they offer an excellent overload response: Thanks to an extra power of 150 %, loads with high power consumption can be connected without any problems and the permanent overload capability of 120% offers power reserves in case of expansions. The high degree of efficiency results in low energy consumption and minimal heat generation inside the control cabinet.

To further increase the 24 V availability, the SITOP smart power supplies can be combined with **buffer**, **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 1-phase, 24 V DC/2.5 A, 5 A, 10 A and 20 A as well as 12 V/7 A and 14 A
- 3-phase, 24 V DC/5 A, 10 A, 20 A and 40 A
- Compact design - no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Permanent overload capability with 1.2 times the rated current up to 45 °C ambient temperature (24 V versions)
- High degree of efficiency up to 91.5 %
- Adjustable output voltage for compensating voltage drops
- Signaling contact for easy integration in the plant monitoring system
- Wide temperature range from -25 or -10 to +70 °C
- Comprehensive certifications, such as cULus, cCSAus, ATEX, IECEx and GL

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



The one-phase SITOP smart are the universal and powerful standard power supplies for machinery and plant engineering. Despite their compact design, they offer an excellent overload response: Thanks to an extra power of 150 %, loads with high power consumption can be connected without any problems. The high degree of efficiency results in low energy consumption and minimal heat generation inside the control cabinet.

Main product highlights

- 1-phase, 12 V DC/7 A and 14 A
- Input voltage 120 V and 230 V AC with automatic range switching
- Compact design - no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Adjustable output voltage for compensating voltage drops
- Signaling contact for easy integration in the plant monitoring system
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, cCSAus, ATEX, IECEx and GL

Ordering data

Article No.

**SITOP PSU100S 1-phase,
12 V DC/7 A**

Stabilized power supply
Input: 120/230 V AC
Output: 12 V DC/7 A

6EP1322-2BA00**SITOP PSU100S 1-phase,
12 V DC/14 A**

Stabilized power supply
Input: 120/230 V AC
Output: 12 V DC/14 A

6EP1323-2BA00

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



The one-phase SITOP smart are the universal and powerful standard power supplies for machinery and plant engineering. Despite their compact design, they offer an excellent overload response: Thanks to an extra power of 150 %, loads with high power consumption can be connected without any problems

and the permanent overload capability of 120% offers power reserves in case of expansions. The high degree of efficiency results in low energy consumption and minimal heat generation inside the control cabinet.

To further increase 24 V availability, the SITOP smart power supplies can be combined with **buffer**, **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 1-phase, 24 V DC/2.5 A, 5 A, 10 A and 20 A
- Input voltage 120 V and 230 V AC with automatic range switching
- Compact design - no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Permanent overload capability with 1.2 times the rated current up to 45 °C ambient temperature
- Adjustable output voltage for compensating voltage drops
- Signaling contact for easy integration in the plant monitoring system
- Wide temperature range from -25 or 0 to +70 °C
- Comprehensive certifications, such as cULus, cCSAus, ATEX, IECEx and GL

Ordering data	Article No.
SITOP PSU100S 1-phase, 24 V DC/2.5 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/2.5 A	6EP1332-2BA20
SITOP PSU100S 1-phase, 24 V DC/5 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/5 A	6EP1333-2BA20
SITOP PSU100S 1-phase, 24 V DC/10 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC / 10 A	6EP1334-2BA20
SITOP PSU100S 1-phase, 24 V DC/20 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/20 A	6EP1336-2BA10

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Accessories	Article No.
SITOP PSE202U redundancy module Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current	6EP1961-3BA21
SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies output power limited < 100 VA	6EP1962-2BA00
SITOP PSE202U redundancy module Input/output: 24 V DC/10 A suitable for decoupling two SITOP power supplies with a maximum of 5 A output current	6EP1964-2BA00
SITOP PSE200U 3 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/3A per each channel output current adjustable 0.5 ... 3 A • With common alarm signal • With single-channel signaling	6EP1961-2BA11 6EP1961-2BA31
SITOP PSE200U 10 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A • With common alarm signal • With single-channel signaling	6EP1961-2BA21 6EP1961-2BA41
SITOP PSE201U buffer module For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	6EP1961-3BA01

Overview



The three-phase SITOP smart are the universal and powerful standard power supplies for machinery and plant engineering. Despite their compact design, they offer an excellent overload response: Thanks to an extra power of 150 %, loads with high power consumption can be connected without any problems

and the permanent overload capability of 120% offers power reserves in case of expansions.

The high degree of efficiency results in low energy consumption and minimal heat generation inside the control cabinet.

To further increase 24 V availability, the SITOP smart power supplies can be combined with **buffer**, **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 3-phase, 24 V DC/5 A, 10 A, 20 A and 40 A
- Wide-range input from 340 to 550 V AC for global use
- Compact design - no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Permanent overload capability with 1.2 times the rated current up to 45 °C ambient temperature
- Adjustable output voltage for compensating voltage drops
- Signaling contact for easy integration in the plant monitoring system
- Wide temperature range from -25 or 0 to +70 °C
- Comprehensive certifications, such as cULus, cCSAus, ATEX, IECEx and GL

Ordering data	Article No.
SITOP PSU300S 3-phase, 24 V DC/5 A Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/5 A	6EP1433-2BA20
SITOP PSU300S 3-phase, 24 V DC/10 A Stabilized power supply Input: 3 AC 400 ... 500 V Output: 24 V DC/10 A	6EP1434-2BA20
SITOP PSU300S 3-phase, 24 V DC/20 A Stabilized power supply Input: 3 AC 400 ... 500 V Output: 24 V DC/20 A	6EP1436-2BA10
SITOP PSU300S 3-phase, 24 V DC/40 A Stabilized power supply Input: 3 AC 400 ... 500 V Output: 24 V DC/40 A	6EP1437-2BA20

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Accessories	Article No.
Device labeling plates	3RT1900-1SB20
SITOP PSE202U redundancy module Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current	6EP1961-3BA21
SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies output power limited < 100 VA	6EP1962-2BA00
SITOP PSE202U redundancy module	6EP1964-2BA00
SITOP PSE200U 3 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/3A per each channel output current adjustable 0.5 ... 3 A	6EP1961-2BA11 6EP1961-2BA31
SITOP PSE200U 10 A selectivity module 4-channel selectivity module Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A	6EP1961-2BA21 6EP1961-2BA41
SITOP PSE201U buffer module For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	6EP1961-3BA01

Overview



The technology power supply for demanding solutions

The one, two and three-phase SITOP modular units are the technology power supplies for demanding solutions. They offer maximum functionality for use in complex plants and machines. The wide-range input allows a connection to almost any electrical power system worldwide and ensures a high degree of safety even if there are large voltage fluctuations. They offer outstanding overload characteristics: Power boost delivers up to three-times the rated current for short periods of time, and with extra power of 150%, loads with high power consumption can be connected without any problems. And in the event of an overload, you can choose between constant current or latching shut-down. The extremely high efficiency keeps energy consumption and heat buildup in the control cabinet low, and the compact metal enclosure also saves space.

To further increase the 24 V availability, the SITOP smart power supplies can be combined with **buffer**, **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 1-phase, 24 V DC / 5 A, 10 A, 20 A, 40 A
- 1-phase and 2-phase, 24 V DC / 5A, 10 A
- 3-phase, 24 V DC/ 20 A, 40 A, 36 V/ 13 A and 48 V/ 10 A, 20 A
- Extremely slim design – no lateral installation clearances required
- Power boost with 3 times rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times rated current (5 s/min) for brief functional overload
- Selectable short-circuit response between constant current and latching shutdown
- Symmetrical load distribution can be selected for parallel operation
- Operating state on 3 LEDs
- Extremely high efficiency up to 94 %
- Large temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX, IECex and GL

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



The 1-phase SITOP modular are technology power supplies for sophisticated solutions and offer maximum functionality for use in complex plants and machines. The wide-range input allows a connection to almost any electrical power system worldwide and ensures a high degree of safety even if there are large voltage fluctuations. The power boost provides up to three times the rated current for brief periods. In case of overload, you can

choose between constant current with automatic restart or latching shutdown.

The high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

To further increase the 24 V availability, the SITOP modular power supplies can be combined with **buffer**, **DC UPS**, **redundancy** and **selectivity modules**.

Main product highlights

- 24 V DC/ 5 A, 10 A, 20 A and 40 A
- 1-phase wide-range input for connection to any supply system and for safety in case of voltage supply deviations
- Extremely slim design – no lateral installation clearances required
- Power Boost with 3 times the rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Selectable short-circuit response between constant current and latching shutdown
- Optional symmetrical load distribution for parallel operation
- Operating status on 3 LEDs
- Extremely high efficiency to 94 %
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX and GL

Ordering data	Article No.	Accessories	Article No.
SITOP PSU8200 1-phase, 24 V DC/5 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/5 A	6EP3333-8SB00-0AY0	SITOP PSE201U buffer module For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	6EP1961-3BA01
SITOP PSU8200 1-phase, 24 V DC/10 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/10 A	6EP3334-8SB00-0AY0	SITOP modular signaling module For 6EP1XXX-3BA00 signaling contacts: Output voltage OK, readiness for operation OK, remote ON/OFF	6EP1961-3BA10
SITOP PSU8200, 1-phase, 24 V DC/20 A Stabilized power supply Input: 120 ... 230 V AC/ 110-220 V DC Output: 24 V DC/20 A	6EP1336-3BA10	SITOP PSE202U redundancy module Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current	6EP1961-3BA21
SITOP PSU100M 1-phase, 24 V DC/40 A Stabilized power supply Input: 120/230 V AC Output: 24 V DC/40 A	6EP1337-3BA00	SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies; output power limited < 100 VA	6EP1962-2BA00
		SITOP PSE202U redundancy module Input/output: 24 V DC/10 A suitable for decoupling two SITOP power supplies with a maximum of 5 A output current	6EP1964-2BA00
		SITOP PSE200U selectivity module 3 A 4-channel Input: 24 V DC Output: 24 V DC/3 A per channel Adjustable output current 0.5 ... 3 A • With common alarm signal • With single-channel signaling	6EP1961-2BA11 6EP1961-2BA31
		SITOP PSE200U selectivity module 10 A 4-channel Input: 24 V DC Output: 24 V DC/10 A per channel Adjustable output current 3 ... 10 A • With common alarm signal • With single-channel signaling	6EP1961-2BA21 6EP1961-2BA41
		Device labeling plates	3RT1900-1SB20

Overview



The 1-phase and 2-phase SITOP modular are technology power supplies for sophisticated solutions and offer maximum functionality for use in complex plants and machines. The ultra-wide input range allows connections to almost any 1-phase power supply system or directly between the line conductors of three-phase networks (2-phase) and ensures a high degree of safety even if there are large voltage fluctuations. The power boost provides up to three times the rated current for brief

periods. In case of overload, you can choose between constant current with automatic restart or latching shutdown. The high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

To further increase 24 V availability, the SITOP modular power supplies can be combined with **buffer, DC UPS, redundancy and selectivity modules**.

Main product highlights

- 24 V/5 A and 10 A, also available as version with PCB with protective coating.
- 1-phase and 2-phase ultra-wide input range
- Extremely slim design – no lateral installation clearances required
- Power Boost with 3 times the rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Selectable short-circuit response between constant current and latching shutdown
- Optional symmetrical load distribution for parallel operation
- Operating status on 3 LEDs
- High degree of efficiency up to 91 %
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX and GL

Ordering data	Article No.
SITOP PSU200M 1-phase and 2-phase, 24 V DC/5 A Stabilized power supply Input: 120 ... 230/230 ... 500 V AC Output: 24 V DC/5 A	6EP1333-3BA10
SITOP modular 1-phase and 2-phase, 24 V DC /5 A Stabilized power supply Input: 120 ... 230/230 ... 500 V AC Output: 24 V DC/5 A Version with protective coating	6EP1333-3BA10-8AC0
SITOP PSU200M 1-phase and 2-phase, 24 V DC/10 A Stabilized power supply Input: 120 ... 230 V/ 230 ... 500 V AC Output: 24 V DC/10 A	6EP1334-3BA10
SITOP modular 1-phase and 2-phase, 24 V DC /10 A Stabilized power supply Input: 120 ... 230/230 ... 500 V AC Output: 24 V DC/10 A version with protective coating	6EP1334-3BA10-8AB0

Accessories	Article No.
SITOP PSE201U buffer module For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	6EP1961-3BA01
SITOP PSE202U redundancy module Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current	6EP1961-3BA21
SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies; output power limited < 100 VA	6EP1962-2BA00
SITOP PSE202U redundancy module Input/output: 24 V DC/10 A suitable for decoupling two SITOP power supplies with a maximum of 5 A output current	6EP1964-2BA00
SITOP PSE200U selectivity module 3 A 4-channel; Input: 24 V DC Output: 24 V DC/3 A per channel output current adjustable 0.5 ... 3 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA11 6EP1961-2BA31
SITOP PSE200U selectivity module 10 A 4-channel; Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA21 6EP1961-2BA41
Device labeling plates	3RT1900-1SB20

Overview



The 3-phase SITOP modular are technology power supplies for sophisticated solutions and offer maximum functionality for use in complex plants and machines. The wide-range input allows a connection to almost any electrical power system worldwide and ensures a high degree of safety even if there are large voltage fluctuations. The power boost provides up to three times the rated current for brief periods. In case of overload, you can

choose between constant current with automatic restart or latching shutdown. The high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

To further increase 24 V availability, the SITOP modular power supplies can be combined with **buffer, DC UPS, redundancy and selectivity modules**.

Main product highlights

- 24 V DC/ 20 A and 40 A
- 3-phase wide-range input from 320 to 575 V AC for global use
- Extremely slim design – no lateral installation clearances required
- Power Boost with 3 times the rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Selectable short-circuit response between constant current and latching shutdown
- Optional symmetrical load distribution for parallel operation
- Operating status on 3 LEDs
- Extremely high efficiency up to 94%
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX, IECEx and GL

Ordering data	Article No.
SITOP PSU8200, 3-phase, 24 V DC/20 A Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/20 A	6EP3436-8SB00-0AY0
SITOP PSU8200 3-phase, 24 V DC/40 A Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/20 A	6EP1437-3BA10

Accessories	Article No.
SITOP PSE201U buffer module For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	6EP1961-3BA01
SITOP PSE202U redundancy module Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current	6EP1961-3BA21
SITOP PSE202U redundancy module Input/output: 24 V DC/NEC Class 2 suitable for decoupling two SITOP power supplies; output power limited < 100 VA	6EP1962-2BA00
SITOP PSE202U redundancy module Input/output: 24 V DC/10 A suitable for decoupling two SITOP power supplies with a maximum of 5 A output current	6EP1964-2BA00
SITOP PSE200U selectivity module 3 A 4-channel; Input: 24 V DC Output: 24 V DC/3 A per channel output current adjustable 0.5 ... 3 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA11 6EP1961-2BA31
SITOP PSE200U selectivity module 10 A 4-channel; Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A <ul style="list-style-type: none"> • With common alarm signal • With single-channel signaling 	6EP1961-2BA21 6EP1961-2BA41
Device labeling plates	3RT1900-1SB20

SITOP modular

3-phase, 36 V DC

Overview



The 3-phase SITOP modular are technology power supplies for sophisticated solutions and offer maximum functionality for use in complex plants and machines. The wide-range input allows connection to almost any electrical power system worldwide and ensures a high degree of safety, even if there are large voltage

fluctuations. The power boost provides up to three times the rated current for brief periods. In case of overload, you can choose between constant current with automatic restart or latching shutdown. The high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

Main product highlights

- 36 V DC/13 A
- 3-phase AC input 400 to 500 volts
- Extremely slim design – no lateral installation clearances required
- Power Boost with 3 times the rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Choice of constant current or latching shutdown short-circuit response
- Optional symmetrical load distribution for parallel operation
- Operating state on 3 LEDs
- Extremely high efficiency up to 94%
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX

Ordering data	Article No.
SITOP PSU8200 3-phase, 36 V DC/13 A Stabilized power supply Input: 400 ... 500 V 3 AC Output: 36 V DC/13 A	6EP3446-8SB10-0AY0

Accessories	Article No.
Device labeling plates	3RT1900-1SB20

Overview



The 3-phase SITOP modular are technology power supplies for sophisticated solutions and offer maximum functionality for use in complex plants and machines. The wide-range input allows a connection to almost any electrical power system worldwide and ensures a high degree of safety even if there are large voltage

fluctuations. The power boost provides up to three times the rated current for brief periods. In case of overload, you can choose between constant current with automatic restart or latching shutdown. The high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

Main product highlights

- 48 V DC / 10 A and 20 A
- 3-phase wide-range input
- Extremely slim design – no lateral installation clearances required
- Power Boost with 3 times the rated current (for 25 ms) for tripping protective devices
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Selectable short-circuit response between constant current and latching shutdown
- Optional symmetrical load distribution for parallel operation
- Operating status on 3 LEDs
- Extremely high efficiency to 94 %
- Wide temperature range from -25 to +70 °C
- Comprehensive certifications, such as cULus, ATEX and GL

Ordering data	Article No.
SITOP PSU300M 3-phase, 48 V DC/10 A Stabilized power supply Input: 3 AC 400 ... 500 V Output: 48 V DC / 10 A	6EP1456-3BA00
SITOP PSU300M 3-phase, 48 V DC / 20 A Stabilized power supply Input: 3 AC 400 ... 500 V Output: 48 V DC/20 A	6EP1457-3BA00

Accessories	Article No.
Device labeling plates	3RT1900-1SB20

Overview



As a unique power supply system with complete integration in Totally Integrated Automation (TIA), SITOP PSU8600 sets new standards in industrial power supplies. The benefits of this integration are not only apparent during engineering in TIA Portal but also result in reliable operation. Voltage and current response thresholds can be set individually for each output of the power supply system, and selective monitoring of each output for overload results in fast fault location. Depending on requirements additional modules from the modular system, such as are used for buffering short power failures, can be added without wiring overhead.

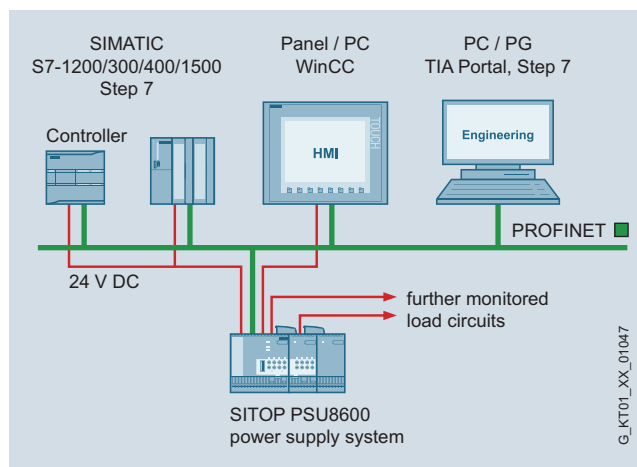
Comprehensive diagnostic and maintenance information is available via PROFINET. It can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC. Optimal support is also provided for energy management of plant or machines: From the acquisition of energy data from individual outputs, the specific activation and deactivation of outputs via PROFlenergy, to direct integration in power management systems.

Benefits

- Reduced space requirement and costs due to multiple integrated outputs with selective monitoring
- Individually configurable outputs (no need for additional power supply for 5 V, 12 V or 15 V)
- Compensation for power losses can be set separately for each output
- Narrow width without lateral installation clearances
- Low temperature rise in the control cabinet due to very high efficiency
- If required, extra units from the modular system (more outputs, buffer module) can be added without wiring effort
- Reliable operation due to bridging of short-term power failures
- Two integrated Ethernet/PROFINET ports (no external switch required)
- Complete integration in TIA requires less time and reduces costs during configuration (TIA Portal) and in operation
- SIMATIC S7 function blocks for easy integration in STEP 7 user programs
- Fast integration in operator control and monitoring with WinCC faceplates
- Preventive maintenance reduces downtimes
- Energy savings during breaks through targeted switching of outputs
- Easy integration in energy management systems (PROFlenergy protocol)

Application

The SITOP PSU8600 power supply system is used as the central DC power supply of larger plants or machines with networked automation systems. The PSU8600 can be directly integrated into the LAN infrastructure by means of the two integrated PROFINET ports.



An extremely high level of reliability is achieved for the DC voltage supply by monitoring the individual DC branches for overload and bridging short-term power failures (brownouts). Complete transparency and fast fault localization are achieved by providing comprehensive diagnostic and maintenance information (e.g. load states of the outputs, phase/network failure, overtemperature) via PROFlenergy.

Energy-optimized operation is supported by measuring the current power and voltage values of the individual outputs as well as the individual activation and deactivation of the DC outputs via PROFlenergy during break times.

Design

Basic devices

- SITOP PSU8600, 3-phase power supply, 24 V DC/20 A/4x 5 A with four outputs (max. 5 A per output) and two Ethernet/PROFINET ports
- SITOP PSU8600, 3-phase power supply, 24 V DC/20 A with one output and two Ethernet/PROFINET ports
- SITOP PSU8600, 3-phase power supply, 24 V DC/40 A/4x 10 A with four outputs (max. 10 A per output) and two Ethernet/PROFINET ports
- SITOP PSU8600, 3-phase power supply, 24 V DC/40 A with one output and two Ethernet/PROFINET ports

Modular system, consisting of:

- SITOP CNX8600 4x 5 A (expansion module with 4 outputs at 5 A each)
- SITOP CNX8600 4x 10 A (expansion module with 4 outputs at 10 A each)
- SITOP BUF8600 100 ms/40 A (buffer module with 100 ms at 40 A)
- SITOP BUF8600 300 ms/40 A (buffer module with 300 ms at 40 A)
- SITOP BUF8600 4 s/40 A (buffer module with 4 s at 40 A)
- SITOP BUF8600 10 s/40 A (buffer module with 10 s at 40 A)

You can connect up to four CNX8600 expansion modules as well as up to two BUF8600 buffer modules to the PSU8600 basic device. Connection takes place on top of the modules without any wiring by means of the System Clip Link, a connecting plug for system data and power supply. The order of the up to six possible add-on modules is random so that an existing configuration does not have to be altered if a module is added later.

Function**Supply of connected loads**

An individual supply voltage can be set at each output of the power supply system. This means you can supply loads with different rated voltages simultaneously with only one device. Plus the voltage drop caused by the different cable lengths can be compensated individually, which means each load can be supplied with the optimum voltage.

Monitoring of the outputs for overload

Each output of the power supply system is individually monitored for overload. If the load current exceeds the set response threshold, the output is shut down according to specified time-current characteristics. All other outputs continue to be supplied reaction-free.

Enabling and disabling the outputs

Each output can be manually enabled or disabled directly on the device (e.g. for commissioning or service) and an overload tripping can be reset. Outputs disabled due to overload can also be reset remotely using a remote signal (24 V input).

In addition, program-controlled enabling and disabling of the outputs is possible using the integrated Ethernet/PROFINET interface. This also means you can disable individual outputs by means of PROFIenergy during breaks to save energy.

Function (continued)**Communication**

Comprehensive diagnostic information can be queried and processed via the integrated Ethernet/PROFINET interface during operation for both the device status as well as the status of the individual outputs. This results in complete transparency, minimal downtimes and quick fault location. The integrated web server also permits remote monitoring of the power supply system.

Buffering

In case of short-term power failure, the buffer module supplies the load current for supplying the outputs by means of its energy storage units. Maintenance-free electrolytic capacitors or double-layer capacitors are used as energy-storage units.

Integration**Software for TIA-based automation systems**

Different software components are available to facilitate easy integration of the SITOP PSU8600 in the TIA environment.

Engineering is simple via the TIA Portal. Special function blocks for SIMATIC S7-300, S7-400, S7-1200 and S7-1500 also support integration in the STEP 7 user program.

The comprehensive operating and diagnostic data of the power supply system can be visualized using ready-to-use PSU8600 faceplates for WinCC.

TIA Portal

- User-friendly, failsafe integration of SITOP PSU8600 in the PROFINET network by means of drag-and-drop
- Convenient configuration of the PSU8600 basic units and CNX8600 and BUF8600 add-on modules through simple selection from the TIA Portal hardware catalog
- Free download of HSP (Hardware Support Package) for TIA Portal version V13 or higher available at <http://support.automation.siemens.com/WWW/view/en/102254062>
- Free GSD file (Generic Station Description) for STEP 7 V 5.5 <http://support.automation.siemens.com/WWW/view/en/102254061>



Error-free establishment of the PROFINET connection between the SITOP PSU8600 and the controller is easy with the TIA Portal

Integration (continued)

STEP 7 function blocks

Function blocks are available for STEP 7 user programs on SIMATIC S7-300/400/1200/1500. They allow further processing of the PSU8600 operating data.

- Function blocks for STEP 7 V5.5
- Function blocks for STEP 7 V13

Free download from:

<http://support.automation.siemens.com/WW/view/en/102379345>

Faceplates for WinCC

Ready-to-use faceplates save programming time during visualization of the SITOP PSU8600. The faceplates show all relevant statuses and values of the power supply system and the individual outputs and are available for the following systems:

- Faceplates for WinCC V7.3
- Faceplates for WinCC flexible 2008 SP3
- Faceplates for WinCC Comfort/Advanced/ Professional V13

Free download from:

<http://support.automation.siemens.com/WW/view/en/102379345>

SITOP PSU8600																			
State	Trends	Alarms	PSU																
PSU8600	PSU8600 information																		
CNX8600 #1	Operating state: ■ The power supply system is in normal operation.																		
CNX8600 #2	Input voltage: 390 V																		
CNX8600 #3	System load current: 3.0 A																		
BUF8600 #1	Output information																		
BUF8600 #2	<table border="1"> <tr> <td>Output 1:</td> <td>Uout: 23.9 V</td> <td>Iout: 2.6 A</td> <td>State: ■</td> </tr> <tr> <td>Output 2:</td> <td>Uout: 24.0 V</td> <td>Iout: 0.1 A</td> <td>State: ■</td> </tr> <tr> <td>Output 3:</td> <td>Uout: 24.0 V</td> <td>Iout: 0.1 A</td> <td>State: ■</td> </tr> <tr> <td>Output 4:</td> <td>Uout: 24.0 V</td> <td>Iout: 0.0 A</td> <td>State: ■</td> </tr> </table>			Output 1:	Uout: 23.9 V	Iout: 2.6 A	State: ■	Output 2:	Uout: 24.0 V	Iout: 0.1 A	State: ■	Output 3:	Uout: 24.0 V	Iout: 0.1 A	State: ■	Output 4:	Uout: 24.0 V	Iout: 0.0 A	State: ■
Output 1:	Uout: 23.9 V	Iout: 2.6 A	State: ■																
Output 2:	Uout: 24.0 V	Iout: 0.1 A	State: ■																
Output 3:	Uout: 24.0 V	Iout: 0.1 A	State: ■																
Output 4:	Uout: 24.0 V	Iout: 0.0 A	State: ■																
Information																			

The pre-compiled WinCC faceplates show all the relevant data of the power supply system in an easy-to-understand display.

Web server

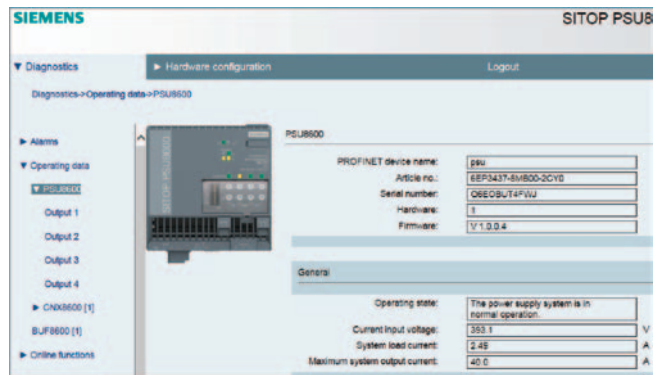
A web server is integrated in the PSU8600 basic unit for remote monitoring of the power supply system.

Remote monitoring of

- Hardware configuration data
- Operating data of the basic unit, all connected add-on modules and the individual outputs
- Alarm messages

Remote access via

- Firefox V29, Internet Explorer 8, 10, 11
- IP address
- User name and password



The password-protected web server offers a view of the configuration and operating data.

More information

Select the appropriate power supply quickly and easily with the PSU8600 SITOP Selection Tool:

<http://www.siemens.de/sitop-selection-tool>

SITOP modular, PSU8600 power supply system

3-phase, basic units 24 V DC (PSU8600)

Overview



The ultra-slim 3-phase basic units of the SITOP PSU8600 power supply system include one Ethernet/PROFINET interface as well as one or four configurable outputs (voltage and current threshold) with selective monitoring. Additional units from the modular system can be added as required to the basic unit, without wiring overhead, in order to increase the number of outputs (CNX8600) or to extend the mains buffering time (BUF8600). Comprehensive diagnostic and maintenance information is available via PROFINET. It can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC. Energy management is also optimally supported by collecting the energy data for each output as well as individual activation and deactivation of the outputs via PROFlenergy.

information is available via PROFINET. It can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC. Energy management is also optimally supported by collecting the energy data for each output as well as individual activation and deactivation of the outputs via PROFlenergy.

Main product highlights

- 3-phase wide-range input 400 to 500 V 3 AC for global use
- Extremely slim design with very high efficiency of up to 94%
- Versions with a configurable output with up to 20 A or 40 A and selective monitoring
- Versions with four integrated, individually configured outputs with up to 5 A or 10 A each and selective monitoring
- Voltage and response threshold can be set separately and are infinitely adjustable for each output
- Extra power with 1.5 times the rated current (5 s/min) for brief, operational overload
- Integrated Ethernet/PROFINET interface (2 ports)
- Easy configuration in the TIA Portal
- Comprehensive diagnostic information during operation
- Outputs can be deactivated and activated in a targeted manner with PROFlenergy
- Individual expansion options from the modular system (expansion modules, buffer modules) without wiring overhead

Technical specifications

Article number	6EP3436-8SB00-2AY0	6EP3437-8SB00-2AY0	6EP3436-8MB00-2CY0	6EP3437-8MB00-2CY0
Product	SITOP PSU8600	SITOP PSU8600	SITOP PSU8600	SITOP PSU8600
Power supply, type	24 V/20 A	24 V/40 A	24 V/20 A/4x 5 A	24 V/40 A/4x 10 A
Input				
Input	3-phase AC	3-phase AC	3-phase AC	3-phase AC
Rated voltage value $V_{in rated}$	400 ... 500 V	400 ... 500 V	400 ... 500 V	400 ... 500 V
Voltage range AC	320 ... 575 V	320 ... 575 V	320 ... 575 V	320 ... 575 V
• Note	Derating 320 ... 360 and 530 ... 575 V	Derating 320 ... 360 and 530 ... 575 V	Derating 320 ... 360 and 530 ... 575 V	Derating 320 ... 360 and 530 ... 575 V
Wide-range input	Yes	Yes	Yes	Yes
Mains buffering at $I_{out rated}$, min.	15 ms; at $V_{in} = 400$ V; Prioritized voltage supply at power failure via DIP switch can be selected (only with expansion module CNX8600)	15 ms; at $V_{in} = 400$ V; Prioritized voltage supply at power failure via DIP switch can be selected (only with expansion module CNX8600)	15 ms; at $V_{in} = 400$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch	15 ms; at $V_{in} = 400$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch
Rated line frequency	50 ... 60 Hz	50 ... 60 Hz	50 ... 60 Hz	50 ... 60 Hz
Rated line range	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz	47 ... 63 Hz
Input current				
• at rated input voltage 400 V	1.4 A	2.75 A	1.4 A	2.75 A
• at rated input voltage 500 V	1.1 A	2.2 A	1.1 A	2.2 A
Switch-on current limiting (+25 °C), max.	14 A	14 A	14 A	14 A
I^2t , max.	1.2 A ² ·s	2.24 A ² ·s	1.2 A ² ·s	2.24 A ² ·s
Built-in incoming fuse	none	none	none	none
Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)	Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)	Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)	Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)

SITOP modular, PSU8600 power supply system

3-phase, basic units 24 V DC (PSU8600)

Technical specifications (continued)

Article number	6EP3436-8SB00-2AY0	6EP3437-8SB00-2AY0	6EP3436-8MB00-2CY0	6EP3437-8MB00-2CY0
Product	SITOP PSU8600	SITOP PSU8600	SITOP PSU8600	SITOP PSU8600
Power supply, type	24 V/20 A	24 V/40 A	24 V/20 A/4x 5 A	24 V/40 A/4x 10 A
Suitability for interaction modular system	Yes	Yes	Yes	Yes
Width of the enclosure	80 mm	125 mm	100 mm	125 mm
Height of the enclosure	125 mm	125 mm	125 mm	125 mm
Depth of the enclosure	150 mm	150 mm	150 mm	150 mm
Required spacing				
• top	50 mm	50 mm	50 mm	50 mm
• bottom	50 mm	50 mm	50 mm	50 mm
• left	0 mm	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm	0 mm
Weight, approx.	1.8 kg	2.6 kg	2 kg	2.6 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15
Electrical accessories	Expansion modules CNX8600, buffer modules BUF8600	Expansion modules CNX8600, buffer modules BUF8600	Expansion modules CNX8600, buffer modules BUF8600	Expansion modules CNX8600, buffer modules BUF8600
Mechanical accessories	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C				226 272 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

SITOP PSU8600 3-phase, 24 V DC/20 A with PN/E connection Stabilized power supply Input: 400 ... 500 V AC 3 AC Output: 24 V DC/20 A	6EP3436-8SB00-2AY0
SITOP PSU8600 3-phase, 24 V DC/40 A with PN/E connection Stabilized power supply Input: 400 ... 500 V AC 3 AC Output: 24 V DC/40 A	6EP3437-8SB00-2AY0
SITOP PSU8600 3-phase, 24 V DC/20 A/4 x 5 A with PN/E connection Stabilized power supply Input: 400 ... 500 V AC 3 AC Output: 24 V DC/20 A/4 x 5 A	6EP3436-8MB00-2CY0
SITOP PSU8600 3-phase, 24 V DC/40 A/4 x 10 A with PN/E connection Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/40 A/4 x 10 A	6EP3437-8MB00-2CY0

Accessories

Article No.

SITOP CNX8600 4 x 5 A expansion module For SITOP PSU8600 Output: 24 V DC/4 x 5 A	6EP4436-8XB00-0CY0
SITOP CNX8600 4 x 10 A expansion module For SITOP PSU8600 Output: 24 V DC/4 x 10 A	6EP4437-8XB00-0CY0
SITOP BUF8600 100 ms buffer module For SITOP PSU8600 Buffer capacity 100 ms/40 A	6EP4297-8HB00-0XY0
SITOP BUF8600 300 ms buffer module For SITOP PSU8600 Buffer capacity 300 ms/40 A	6EP4297-8HB10-0XY0
SITOP BUF8600 4 s buffer module For SITOP PSU8600 Buffer capacity 4 s/40 A	6EP4293-8HB00-0XY0
SITOP BUF8600 10 s buffer module For SITOP PSU8600 Buffer capacity 10 s/40 A	6EP4295-8HB00-0XY0
Device labeling plates	3RT1900-1SB20

SITOP modular, PSU8600 power supply system

Modular system, expansion of outputs (CNX8600)

Overview



The CNX8600 expansion modules are part of the SITOP PSU8600 modular system and expand the basic unit by increasing the number of selectively monitored outputs.

You can connect up to four CNX8600 expansion modules to the PSU8600 basic device. The connection takes place on top of the modules without any wiring by means of the System Clip Link, a connecting plug for system data and power supply.

Main product highlights

- Four integrated outputs with up to 5 A or 10 A each and selective monitoring
- Voltage and response threshold can be set separately and are infinitely adjustable for each output
- Comprehensive diagnostic information during operation via the PSU8600 basic unit
- Outputs can be activated and deactivated in a targeted manner with PROFIenergy via the PSU8600 basic unit
- Easy connection without wiring overhead
- Slim design

Technical specifications

Article number	6EP4436-8XB00-0CY0	6EP4437-8XB00-0CY0
Product	SITOP CNX8600	SITOP CNX8600
Power supply, type	4x 5 A	4x 10 A
Output		
Output	Controlled, isolated DC voltage	Controlled, isolated DC voltage
Number of outputs	4	4
Rated voltage V_{out} DC	24 V	24 V
Output voltage		
• at output 1 at DC Rated value	24 V	24 V
• at output 2 at DC Rated value	24 V	24 V
• at output 3 at DC Rated value	24 V	24 V
• at output 4 at DC Rated value	24 V	24 V
Total tolerance, static \pm	3 %	3 %
Static mains compensation, approx.	0.2 %	0.2 %
Static load balancing, approx.	0.1 %	0.1 %
Residual ripple peak-peak, max.	100 mV	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV	200 mV
Adjustment range	5 ... 28 V	5 ... 28 V
Product function Output voltage adjustable	Yes	Yes
Output voltage setting	via potentiometer; Derating > 24 V: 4%/V; max. 120 W per output	via potentiometer; Derating > 24 V: 4%/V; max. 240 W per output
Status display	3-color LED for operating state module; 3-color LED per output for operating state output	3-color LED for operating state module; 3-color LED per output for operating state output
Signaling	Relay contact (changeover contact, contact current capacity DC 60 V/0.3 A) for "Operating state OK" at power supply unit PSU8600	Relay contact (changeover contact, contact current capacity DC 60 V/0.3 A) for "Operating state OK" at power supply unit PSU8600
On/off behavior	No overshoot of V_{out} (soft start)	No overshoot of V_{out} (soft start)
Startup delay, max.	1.5 s; Without on-delay of the outputs	1.5 s; Without on-delay of the outputs
connection of outputs operating	Simultaneous connecting-in of all outputs after device booting or delay time of 25 ms, 100 ms or "load-optimized" for sequential cutting-in of the outputs via DIP switches at power supply unit PSU8600 can be set	Simultaneous connecting-in of all outputs after device booting or delay time of 25 ms, 100 ms or "load-optimized" for sequential cutting-in of the outputs via DIP switches at power supply unit PSU8600 can be set
Voltage increase time of the output voltage maximum	500 ms	500 ms
Rated current value I_{out} rated	20 A	40 A

Technical specifications (continued)

Article number	6EP4436-8XB00-0CY0	6EP4437-8XB00-0CY0
Product	SITOP CNX8600	SITOP CNX8600
Power supply, type	4x 5 A	4x 10 A
Operating data		
Ambient temperature		
• during operation	-25 ... +60 °C	-25 ... +60 °C
- Note	with natural convection	with natural convection
• during transport	-40 ... +85 °C	-40 ... +85 °C
• during storage	-40 ... +85 °C	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation
Mechanics		
Connection technology	Plug-in terminals with screwed connection	Plug-in terminals with screwed connection
Connections		
• Output	1, 2, 3, 4: Two plug-in terminals (1, 2 and 3, 4) with 2 screwed connections each for 0.2 ... 2.5 mm ² ; Ground: Plug-in terminal with 3 screwed connections for 0.2 ... 2.5 mm ²	1, 2, 3, 4: Two plug-in terminals (1, 2 and 3, 4) with 2 screwed connections each for 0.2 ... 2.5 mm ² ; Ground: Plug-in terminal with 3 screwed connections for 0.2 ... 2.5 mm ²
Product function		
• removable terminal at output	Yes	Yes
Type of connection to system components	Via integrated connector	Via integrated connector
Width of the enclosure	60 mm	60 mm
Height of the enclosure	125 mm	125 mm
Depth of the enclosure	150 mm	150 mm
Required spacing		
• top	50 mm	50 mm
• bottom	50 mm	50 mm
• left	0 mm	0 mm
• right	0 mm	0 mm
Weight, approx.	1.15 kg	1.15 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15
Mechanical accessories	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	499 861 h	499 861 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data	Article No.	Accessories	Article No.
SITOP CNX8600 4 x 5 A expansion module	6EP4436-8XB00-0CY0	Device labeling plates	3RT1900-1SB20
For SITOP PSU8600 Output: 24 V DC/4 x 5 A			
SITOP CNX8600 4 x 10 A expansion module	6EP4437-8XB00-0CY0		
For SITOP PSU8600 Output: 24 V DC/4 x 10 A			

SITOP modular, PSU8600 power supply system

Modular system, buffer (BUF8600)

Overview



The BUF8600 buffer modules with maintenance free energy storage units are part of the SITOP PSU8600 modular system and are designed to bridge short-term power failures. They automatically take over the DC power supply in case of a line voltage failure. You can connect up to two BUF8600 buffer modules to the PSU8600 basic unit. Connection takes place on top of the modules without any wiring by means of the System Clip Link, a connecting plug for system data and power supply.

Main product highlights

- Reliable bridging of short-term power failures up to maximum 20 s (at 24 V DC and full load)
- Buffer module with maintenance free electrolytic capacitors for bridging short-term power failures (brownouts) between 100 ms and max. 600 ms (at 24 V DC/40 A)
- Buffer module with maintenance free double-layer capacitors for bridging longer power failures between 4 s and max. 20 s (at 24 V DC/40 A)
- The two buffer modules can be combined as required.
- Easy connection without wiring overhead

Technical specifications

Article number	6EP4297-8HB00-0XY0	6EP4297-8HB10-0XY0	6EP4293-8HB00-0XY0	6EP4295-8HB00-0XY0
product brand name	SITOP BUF8600	SITOP BUF8600	SITOP BUF8600	SITOP BUF8600
Type of current supply	100 ms/40 A	300 ms/40 A	4 s/40 A	10 s/40 A
Mains buffering				
Type of energy storage	electrolytic capacitors	electrolytic capacitors	Double-layer capacitors	Double-layer capacitors
Buffering time for rated value of the output current in the event of power failure	100 ms	300 ms	4 s	10 s
Output				
Output current				
• Rated value	40 A	40 A	40 A	40 A
Signaling				
Display version	3-color LED for operating state module	3-color LED for operating state module	3-color LED for operating state module	3-color LED for operating state module
• for normal operation	LED green for "buffer standby exist"	LED green for "buffer standby exist"	LED green for "buffer standby exist"	LED green for "buffer standby exist"
• in buffering mode	LED yellow for "buffered mode"	LED yellow for "buffered mode"	LED yellow for "buffered mode"	LED yellow for "buffered mode"
Interface				
Specification/Interface	Ethernet/PROFINET via power supply unit PSU8600	Ethernet/PROFINET via power supply unit PSU8600	Ethernet/PROFINET via power supply unit PSU8600	Ethernet/PROFINET via power supply unit PSU8600
Safety				
Protection class	Class III	Class III	Class III	Class III
CE marking	Yes	Yes	Yes	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	IECEX nA IIC T5 Gc; ATEX (EX) II 3G Ex nA IIC T5 Gc	IECEX nA IIC T5 Gc; ATEX (EX) II 3G Ex nA IIC T5 Gc	IECEX nA IIC T5 Gc; ATEX (EX) II 3G Ex nA IIC T5 Gc	IECEX nA IIC T5 Gc; ATEX (EX) II 3G Ex nA IIC T5 Gc
CB approval	Yes	Yes	Yes	Yes
Shipbuilding approval	GL (ABS in process)	GL (ABS in process)	GL (ABS in process)	GL (ABS in process)
Protection class (EN 60529)	IP20	IP20	IP20	IP20
EMC				
Emitted interference	EN 55022 Class B	EN 55022 Class B	EN 55022 Class B	EN 55022 Class B
Noise immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2

Technical specifications (continued)

Article number	6EP4297-8HB00-0XY0	6EP4297-8HB10-0XY0	6EP4293-8HB00-0XY0	6EP4295-8HB00-0XY0
product brand name	SITOP BUF8600	SITOP BUF8600	SITOP BUF8600	SITOP BUF8600
Type of current supply	100 ms/40 A	300 ms/40 A	4 s/40 A	10 s/40 A
Operating data				
Ambient temperature				
• during operation	-25 ... +60 °C; with natural convection	-25 ... +60 °C; with natural convection	-25 ... +60 °C; with natural convection	-25 ... +60 °C; with natural convection
• during transport	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C
• during storage	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C	-40 ... +70 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation	Climate class 3K3, no condensation	Climate class 3K3, no condensation	Climate class 3K3, no condensation
Mechanics				
Connection technology	-	-	Plug-in terminal with screw connectors	Plug-in terminal with screw connectors
• input	-	-	-	-
• output	-	-	-	-
• auxiliary contact and signaling contacts	-	-	X1, X2 (control contact) and 13,14, 23, 24 (message signals): 1 screw terminal each for 0.2 ... 1.5 mm ²	X1, X2 (control contact) and 13,14, 23, 24 (message signals): 1 screw terminal each for 0.2 ... 1.5 mm ²
Type of connection to system components	Via integrated connector	Via integrated connector	Via integrated connector	Via integrated connector
Width of the enclosure	60 mm	125 mm	60 mm	125 mm
Height of the enclosure	125 mm	125 mm	125 mm	125 mm
Depth of the enclosure	150 mm	150 mm	150 mm	150 mm
Required spacing				
• top	50 mm	50 mm	50 mm	50 mm
• bottom	50 mm	50 mm	50 mm	50 mm
• left	0 mm	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm	0 mm
Weight, approx.	1.33 kg	2.26 kg	1.25 kg	1.95 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes	Yes
Mounting	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15	Snaps onto DIN rail EN 60715 35x15
Mechanical accessories	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20	Device identification label 20 mm x 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	1 944 258 h	1 944 258 h	-	-
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

SITOP BUF8600 100 ms buffer module

For SITOP PSU8600
Buffer capacity 100 ms/40 A

6EP4297-8HB00-0XY0

SITOP BUF8600 300 ms buffer module

For SITOP PSU8600
Buffer capacity 300 ms/40 A

6EP4297-8HB10-0XY0

SITOP BUF8600 4 s buffer module

For SITOP PSU8600
Buffer capacity 4 s/40 A

6EP4293-8HB00-0XY0

SITOP BUF8600 10 s buffer module

For SITOP PSU8600
Buffer capacity 10 s/40 A

6EP4295-8HB00-0XY0

Accessories

Article No.

Device labeling plates

3RT1900-1SB20

Overview



The optimum supply for SIMATIC S7 and more

The original SIMATIC power supplies harmonize perfectly with the PLC network in terms of their design and functionality. In addition to the following SIMATIC systems, they also supply further loads reliably with 24 V.

- SIMATIC S7-300
- SIMATIC S7-1200
- SIMATIC S7-1500
- SIMATIC ET200M
- SIMATIC ET200MP
- SIMATIC ET 200pro

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



The design and functionality of the SIMATIC PS 307 single-phase load power supply (system and load current supply) with automatic range switchover of the input voltage is an optimal match to the SIMATIC S7-300 PLC. By means of the connecting comb that is supplied with the system and load current supply, the supply to the CPU is quickly established. It is also possible to provide a 24 V supply to other S7-300 system components, input/output circuits of the input/output modules and, if necessary, the sensors and actuators. Comprehensive certifications, such as UL, ATEX or GL facilitate universal use (does not apply to outdoor use).

Design

- The system and load current supplies are screwed directly onto the S7-300 standard mounting rail and can be mounted directly to the left of the CPU (no installation clearance required)
- Diagnostic LED for indicating "Output voltage 24 V DC O.K."
- ON/OFF switches (operation/stand-by) for possible swapping of modules
- Strain-relief assembly for input voltage connection cable

Function

- Connection to all 1-phase 50/60 Hz networks (120 / 230 V AC) through automatic range switching (PS307) or manual switching (PS307, outdoor)
- Short-term power failure backup
- Output voltage 24 V DC, stabilized, short circuit-proof, open circuit-proof
- Parallel connection of two power supplies for enhanced performance

Ordering data

Article No.

Load current supply PS 307, 2A Incl. connection bracket Input: 120/230 V AC Output: 24 V DC/2 A	6ES7307-1BA01-0AA0
SIMATIC S7-300 Outdoor, 2A Stabilized power supply PS305 Input: 24 ... 110 V DC Output: 24 V DC/2 A	6ES7305-1BA80-0AA0
PS 307 load power supply, 5 A Incl. connection bracket Input: 120/230 V AC Output: 24 V DC/5 A	6ES7307-1EA01-0AA0
SIMATIC S7-300 Outdoor, 5A Stabilized power supply PS307 Input: 120/230 V AC Output: 24 V DC/5 A	6ES7307-1EA80-0AA0
PS 307 load power supply, 10 A Input: 120/230 V AC Output: 24 V DC/10 A	6ES7307-1KA02-0AA0

Accessoires

Article No.

SIMATIC S7-300 mounting adapter For snapping the new PS 307 onto a 35 mm DIN rail (EN 60715) Spare part	6EP1971-1BA00
SIMATIC S7-300 mounting adapter for snapping the PS307 onto 35 mm DIN rails	6ES7390-6BA00-0AA0

Overview



In terms of design and functionality, the SIMATIC PM 1207 single-phase load power supply (PM = power module) with automatic range selection of the input voltage is an optimal match to the SIMATIC S7-1200 PLC. It provides the supply to CPUs with 24 V input as well as to signal modules, and to 24 V loads connected to the modules. Comprehensive certifications, such as UL, ATEX and GL facilitate universal use.

Design

- The load current supplies are directly fastened to the S7-1200 mounting rail (without connection to the backplane bus) and can be mounted directly to the left of the CPU (no installation clearance required)
- LED for status indicator "24 V OK"
- Two 24 V DC output terminals for connection of 24 V consumers

Function

- Connection to all 1-phase networks (120 V AC/230 V AC) through automatic range switching
- Short-term power failure backup
- Parallel connection of two load current supplies for enhanced performance

Ordering data

Article No.

SIMATIC S7-1200 PM 1207

6EP1332-1SH71

Input: 120/230 V AC
Output: 24 V DC/2.5 A

SITOP in the SIMATIC Design

1-phase, 24 V DC (for S7-1500 and ET200MP)

Overview



The design and functionality of the SIMATIC PM 1507 single-phase load power supply (PM = power module) with automatic range selection of the input voltage makes it an optimal match to the SIMATIC S7-1500 PLC. It supplies the S7-1500 system components such as CPU, system power supply (PS), I/O circuits of the input and output modules and, if necessary, the sensors and actuators with 24 V DC.

Design

- The load current supplies are directly fastened to the S7-1500 mounting rail (without connection to the backplane bus) and can be mounted directly to the left of the CPU (no installation clearance required)
- Diagnostics LEDs to indicate status and faults: Operation, Fault, Stand-by
- ON/OFF switches (operation/stand-by) in case of swapping modules
- Mains connection plug with touch protection and strain relief for connection of input voltage (enables permanent wiring)
- Plug-in 24 V DC output terminal with reverse polarity protection for connection of 24 V loads (enables permanent wiring)

Function

- Connection to all 1-phase 50/60 Hz networks (120 / 230 V AC) through automatic range switching
- Short-term mains buffering
- Output voltage of 24 V DC that is limited to maximum 28 V DC (prevents any damages in 24 V loads if input voltage is too high)
- 50% "Extra Power" for 5 seconds per minute for short-term overloads, for example, when switching on 24V consumers

Ordering data

Article No.

SIMATIC PM 1507

6EP1332-4BA00

Stabilized power supply for SIMATIC S7-1500
Input: 120/230 V AC
Output: 24 V DC/3 A

SIMATIC PM 1507

6EP1333-4BA00

Stabilized power supply for SIMATIC S7-1500
Input: 120/230 V AC
Output: 24 V DC/8 A

Accessories

Article No.

Power connector

6ES7590-8AA00-0AA0

With coding element for power supply module; spare part, 10 units per packaging unit

Overview



The SIMATIC ET200pro PS power supply unit with degree of protection IP67 is used as the electronics/encoder supply and load voltage supply of the new SIMATIC ET 200pro distributed I/O system for use close to the machine without a cabinet. With a signaling contact for "24 V OK" and "Overtemperature", as well as a second plug-in connector for input voltage loop-through.

Ordering data

Article No.

SIMATIC ET 200pro PS

Stabilized power supply in distributed I/O system design, permitting the loop-through of energy to further modules; with degree of protection IP67; Input: 400-480 V 3 AC Output: 24 V DC/8 A

6ES7148-4PC00-0HA0

Accessories

Article No.

Power connector

For connecting to the distributed I/O system

- For X1 (6 mm²)
- For X2 (4 mm²)

3RK1911-2BE30
3RK1911-2BF10

National Fire Protection Association compatible

These devices are only approved for installation in industrial machinery according to the NFPA79 Electrical Standard for Industrial Machinery.

- for X1 SIMATIC ET200pro PS 61 88 201 1003.xx (AWG10)*
- for X1 SITOP PSU300P 61 88 201 1000.xx / 61 88 201 1002.xx (AWG14)*
- for X2 SIMATIC ET200pro PS 61 88 202 1010.xx (AWG10)* supplied blanking cap for X2
- for X3 Phoenix-Contact SAC-5P-M12-M12FS supplied blanking cap for X3

* <http://www.harting.com/en/home>

3RK1902-0CK00

Sealing cap

For 9-pole power sockets

- X2 (1 unit)
- X2 (10 units)

3RK1902-0CJ0
3RK1902-0CK00

Overview



Well prepared for special tasks and conditions

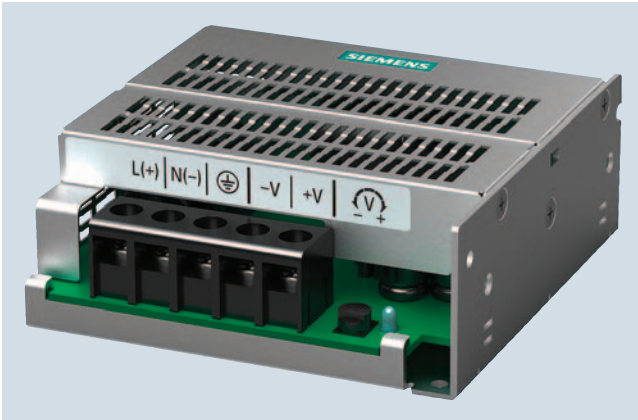
Whether restricted installation conditions, harsh ambient conditions, or special input or output voltages are concerned: These standard power supply units ensure a reliable and efficient supply of power, even when subject to extraordinary demands. Thanks to their compact design they can be integrated perfectly into existing installations.

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview

**Low-cost power supply for wall mounting**

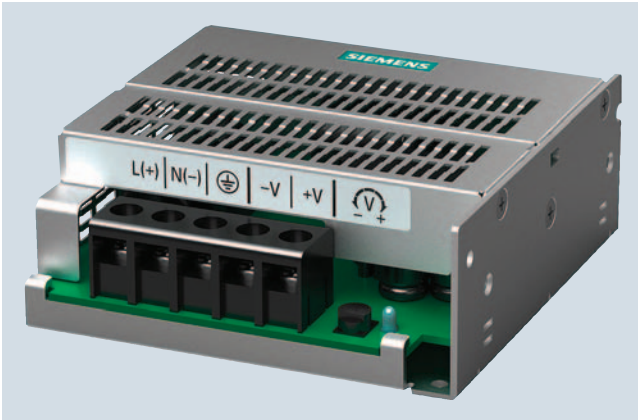
The PSU100D switch mode power supplies extend the Siemens power supply portfolio to include single-phase devices for direct wall mounting using screws. The flat and rugged aluminum enclosure with IP20 degree of protection can be installed in various orientations and is therefore ideal for installation locations with limited space or for mounting in control cabinets and enclosures without a DIN rail. The low-cost devices meet all the basic requirements for a power supply, typical applications being apparatus, automated equipment and automation solutions.

Main product highlights

- For 12-V standard applications from 3 A to 8.3 A
- For 24 V standard applications from 2.1 A to 12.5 A
- Compact metal enclosure
- Wide-range input
- Green LED for "24 V OK"
- Certification in accordance with CE and UL
- Adjustable output voltage from 22 to 28 V or from 11 to 14 V for compensating voltage drops
- Temperature range from -10 °C to +70 °C

Introduction

Overview



The single-phase PSU100Ds are switch mode power supplies for direct wall mounting using screws. The flat and rugged aluminum enclosure with IP20 degree of protection can be installed in various orientations and is therefore ideal for installation locations with limited space or for mounting in control cabinets and enclosures without a DIN rail. The low-cost devices meet all the basic requirements for a power supply, typical applications being apparatus, automated equipment and automation solutions.

Main product highlights

- 12 V DC, 3 A and 8.3 A
- Compact metal enclosure
- Wide-range input
- Green LED for "24 V OK"
- Certification in accordance with CE and UL
- Adjustable output voltage from 22 to 28 V or from 11 to 14 V for compensating voltage drops
- Temperature range from -10 °C to +70 °C

Ordering data

Article No.

PSU100D 1-phase, 12 V DC/3 A**6EP1321-1LD00**

Stabilized power supply 35 W,
for wall mounting
Input: 100 ... 240 V AC
Output: 12 V DC/3 A

PSU100D 1-phase, 12 V DC/8.3 A**6EP1322-1LD00**

Stabilized power supply 100 W,
for wall mounting
Input: 100 ... 240 V AC
Output: 12 V DC/8.3 A

Special designs, special uses—wall mounting

1-phase, 12 V DC (PSU100D)

Overview



The single-phase PSU100Ds are switch mode power supplies for direct wall mounting using screws. The flat and rugged aluminum enclosure with IP20 degree of protection can be installed in various orientations and is therefore ideal for installation locations with limited space or for mounting in control cabinets and enclosures without a DIN rail. The low-cost devices meet all the basic requirements for a power supply, typical applications being apparatus, automated equipment and automation solutions.

Main product highlights

- 24 V DC/ 2.1 A and 3.1 A, 4.1 A, 6.2 A and 12.5 A
- Compact metal enclosure
- Wide-range input
- Green LED for "24 V OK"
- Certification in accordance with CE and UL
- Adjustable output voltage from 22 to 28 V or from 11 to 14 V for compensating voltage drops
- Temperature range from -10 °C to +70 °C

Ordering data

Article No.

Ordering data	Article No.
PSU100D 1-phase, 24 V DC/2.1 A Stabilized power supply 50 W, for wall mounting Input: 100 ... 240 V AC Output: 24 V DC/2.1 A	6EP1331-1LD00
PSU100D 1-phase, 24 V DC/3.1 A Stabilized power supply 75 W, for wall mounting Input: 100 ... 240 V AC Output: 24 V DC/3.1 A	6EP1332-1LD00
PSU100D 1-phase, 24 V DC/4.1 A Stabilized power supply 100 W, for wall mounting Input: 100 ... 240 V AC Output: 24 V DC/4.1 A	6EP1332-1LD10
PSU100D 1-phase, 24 V DC/6.2 A Stabilized power supply 150 W, for wall mounting Input: 100 ... 240 V AC Output: 24 V DC/6.2 A	6EP1333-1LD00
PSU100D 1-phase, 24 V DC/12.5 A Stabilized power supply 300 W, for wall mounting Input: 100 ... 240 V AC Output: 24 V DC/12.5 A	6EP1334-1LD00

Special designs, special uses—high degree of protection

1-phase, 24 V DC (SITOP PSU100P, IP67)

Overview



The SITOP PSU100P 1-phase power supplies for wall mounting, with their rugged design and IP 67 degree of protection are ideal for distributed applications outside the control cabinet.

Main product highlights

- 24 V DC/ 5 A and 8 A
- Automatic switchover of the input voltage
- Temperature range from -25 °C to +60 °C without derating
- High efficiency of 93 % for low internal power consumption
- Isolated relay contact "24 V OK"
- Operation display on the device by means of LED (green = "24 V OK", flashing red = overload)

Ordering data

Article No.

**SITOP PSU100P 1-phase,
24 V DC/5 A**

6EP1333-7CA00

Stabilized power supply with IP67 degree of protection
Input: 120/230 V AC
Output: 24 V DC/5 A

**SITOP PSU100P 1-phase,
24 V DC/8 A**

6EP1334-7CA00

Stabilized power supply with IP67 degree of protection
Input: 120/230 V AC
Output: 24 V DC/8 A

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview



The SIMATIC ET200pro PS power supply unit with degree of protection IP67 is used as the electronics/encoder supply and load voltage supply of the new SIMATIC ET 200pro distributed I/O system for use close to the machine without a cabinet. With a signaling contact for "24 V OK" and "Overtemperature", as well as a second plug-in connector for input voltage loop-through.

Ordering data

SIMATIC ET 200pro PS
 Stabilized power supply in distributed I/O system design, permitting the loop-through of energy to further modules; with degree of protection IP67;
 Input: 400-480 V 3 AC
 Output: 24 V DC/8 A

Article No.

6ES7148-4PC00-0HA0

Accessories

Power connector

For connecting to the distributed I/O system

- For X1 (6 mm²)
- For X2 (4 mm²)

Article No.

3RK1911-2BE30
3RK1911-2BF10

National Fire Protection Association compatible

These devices are only approved for installation in industrial machinery according to the NFPA79 Electrical Standard for Industrial Machinery.

- for X1 SIMATIC ET200pro PS 61 88 201 1003.xx (AWG10)*
- for X1 SITOP PSU300P 61 88 201 1000.xx / 61 88 201 1002.xx (AWG14)*
- for X2 SIMATIC ET200pro PS 61 88 202 1010.xx (AWG10)*

* <http://www.harting.com/en/home>

- supplied blanking cap for X2
- for X3 Phoenix-Contact SAC-5P-M12-M12FS
- supplied blanking cap for X3

3RK1902-0CK00

Sealing cap

- For 9-pole power sockets
- X2 (1 unit)
 - X2 (10 units)

3RK1902-0CJ0
3RK1902-0CK00

Special designs, special uses—battery charging

3-phase, 12 V DC

Overview



The SITOP PSU3800 3-phase power supplies are suitable for battery charging, thanks to their constant-current characteristic. For other applications, the output characteristic can also be switched to latching shutdown. The three-phase, wide-range input enables them to be used worldwide. The slim design requires little space on the DIN rail. Installation gaps are not required.

Ordering data

Article No.

**SITOP PSU3800, 3-phase,
12 V DC/20 A**

6EP3424-8UB00-0AY0

Stabilized power supply
Input: 400 ... 500 V 3 AC
Output: 12 V DC/20 A

Special designs, special uses—battery charging

3-phase, 24 V DC

Overview



SITOP PSU3800 3-phase power supplies (24 V DC/17 A and 30 A) are suitable for battery charging, thanks to their constant-current characteristic. For other applications the output characteristic can also be switched to latching shutdown. The three-phase, wide-range input enables them to be used worldwide. The slim design requires little space on the DIN rail. Installation gaps are not required.

Ordering data

Article No.

**SITOP PSU3800 3-phase,
24 V DC/17 A**

6EP3436-8UB00-0AY0

Stabilized power supply
Input: 400 ... 500 V 3 AC
Output: 24 V DC/17 A

**SITOP PSU300B 3-phase,
24 V DC/30 A**

6EP1437-3BA20

Stabilized power supply
Input: 400 ... 500 V 3 AC
Output: 24 V AC/30 A

Special designs, special uses—alternative output voltages

1-phase, 2 x 15 V DC (SITOP dual)

Overview



The industrial power supply with two 15 V outputs that can be switched in parallel and in series; can be used, for example, to supply electronic loads with ± 15 V.

Ordering data

SITOP power 15 V

Dual output
Stabilized power supply
Input: 120 ... 230 V AC
Output: 2 x 15 V DC/3.5 A

Article No.

6EP1353-0AA00

Special designs, special uses—alternative output voltages

1-phase, 3-52 V DC (SITOP flexi 120 W)

Overview



The power supply with flexible output voltage from 3 to 52 V; suitable for all application areas requiring a special voltage other than 24 V.

Ordering data

SITOP power flexi
Stabilized power supply
Input: 120 ... 230 V AC
Output: 3-52 V DC / 2-10 A, 120 W

Article No.

6EP1353-2BA00

Overview



The optimum power supply for automation solutions in the lower performance range; with wide-range input for **48-220 V DC**; thanks to their compact and slim design, they are particularly suitable for solutions where space is limited and in conjunction with low-voltage switchgear.

Ordering data

SITOP power 0.375 A

DC/DC stabilized power supply
Input: DC 48 ... 220 V
Output: 24 V DC/0.375 A

6EP1731-2BA00

Overview



The DC/DC converter for supply from battery and DC systems; with a wide input voltage range from 38 V to 121 V DC.

Ordering data

SITOP power 2 A
DC/DC stabilized power supply
Input: DC 48/60/110 V
Output: 24 V DC/2 A

Article No.

6EP1732-0AA00

Overview



DC/DC converter for connection to 24 V DC networks. Output voltage 12 V DC; floating, short circuit-proof, open circuit-proof.

Ordering data

SITOP 2.5 A, DC/DC converter

Stabilized power supply
Input: 24 V DC
Output: 12 V DC/2.5 A

Article No.

6EP1621-2BA00

Application



The SITOP PSU400M power supply with a 600 V DC input is suitable as an efficient DC/DC converter for drive and battery systems; large input range and temperature range, high efficiency; slim design; with 50% extra power for 5 s/min.

Ordering data

Article No.

**SITOP PSU 400M 1-phase,
24 V DC/20 A**

6EP1536-3AA00

Stabilized power supply
Input: 600 V AC
Output: 24 V DC/20 A

Accessories

Device labels

3RT1900-1SB20

Special designs, special uses—special applications

1-phase, 24 V DC

Overview



The 24 V/5 A and 10 A power supplies in a compact metal enclosure can be accommodated where only limited installation depth is available. For example, in covered machine supports or hinged frames.

Ordering data	Article No.
SITOP power 1-phase, 24 V DC/5 A Special Line stabilized power supply Input: 120 ... 230 V AC Output: 24 V DC/5 A	6EP1333-1AL12
SITOP power 1-phase, 24 V DC/10 A Special Line Stabilized power supply Input: 120 ... 230 V AC Output: 24 V DC/10 A	6EP1334-1AL12

Accessories	Article No.
SITOP power mounting bracket 90 degree 35 mm DIN rail, M5 fixing screws, for Special Line flat	6EP1971-1AA01

Overview

**Slimline 3-phase power supply for low power ratings**

The SITOP PSU300E 3-phase power supply is designed with a 5 A output current for 24 V applications with low power requirements. The metal enclosure is only 42 mm wide and does not require any lateral gap to other devices on the DIN rail. This is made possible by the low heat dissipation (90% efficiency). The wide-range input from 320 V to 550 V AC permits mains buffering times of 50 ms and thus allows the supply to be used in unstable three-phase networks, thanks to UL certification also in North America. The removable plug-in terminals simplify the AC and DC connection.

Ordering data

**SITOP PSU300E 3-phase,
24 V/5 A DC**

Stabilized power supply
Input: 400 ... 500 V 3 AC
Output: 24 V DC/5 A

Article No.

6EP1433-0AA00

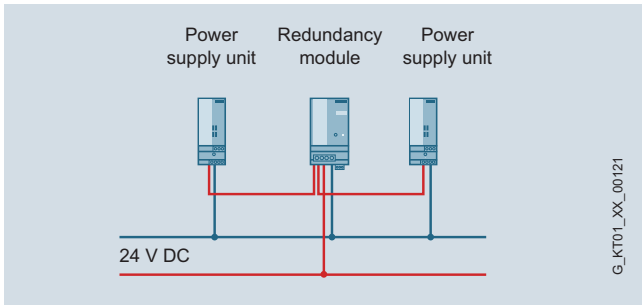
Overview



Expansion modules for increasing system availability

A power supply unit on its own cannot guarantee fault-free 24 V supply. Power failures, extreme variations in the mains voltage, or a faulty load can bring plant operation to a standstill and cause high costs. The add-on modules offer everything from extensive protection against interference on the primary and secondary side right up to complete all-round protection.

Redundancy modules – for doubling system availability

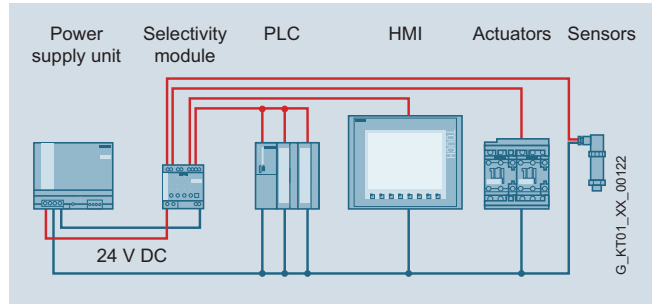


SITOP redundancy module

Advantages of the redundancy modules

- High availability of the 24 V supply thanks to redundant configuration
- Power is reliably supplied even when a power supply fails
- Compact redundancy modules for power supplies up to 40 A
- Redundancy module 24 V/NEC Class 2 with limiting to 100 VA
- Diagnostic signal via LED and signaling contacts
- Adjustable switching threshold for LED and signaling contacts

Selectivity modules – for protection of 24 V feeds

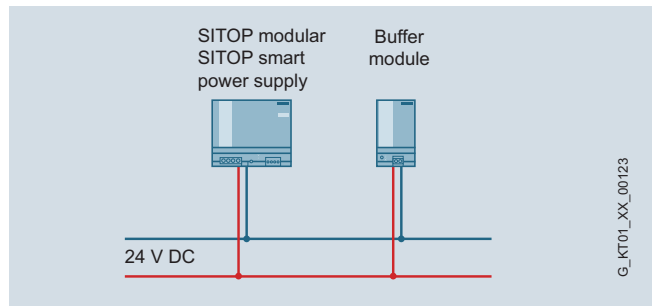


SITOP selectivity module

Advantages of selectivity modules

- Reliable detection of overload or short-circuit in the 24 V circuit
- Reliable shutdown in case of overload regardless of cable lengths or cross-sections
- Four load feeders per module
- Versions with adjustable threshold from 0.5 to 3 A or 3 to 10 A
- Sequential connection of feeds is possible to reduce inrush current
- Diagnostics via group signaling contact or single-channel signaling
- Evaluation via free-of-charge SIMATIC S7 function blocks for modules with single-channel signaling

Buffer module – bridging power failures for as long as seconds



SITOP buffer module

Advantages of the buffer module

Power failures normally only last for fractions of a second, but they can still cause costly and time-consuming damage in sensitive production areas. In combination with SITOP smart and SITOP modular power supply units, the buffer module bridges short voltage dips of this type with its electrolytic capacitors and ensures uninterrupted operation.

More information

Select the appropriate power supply quickly and easily with the SITOP Selection Tool:

<http://www.siemens.com/sitop-selection-tool>

Overview

The SITOP PSE202U redundancy modules are the optimal extension for all 24 V power supplies to ensure additional protection from failure of the 24 V supply. The redundancy module continuously monitors the power supply units and, in the event that one unit fails, the other unit automatically takes over the 24 V power supply. Additionally, a signal is sent via a signaling contact that can be evaluated by a controller, PC, or control system.

Benefits

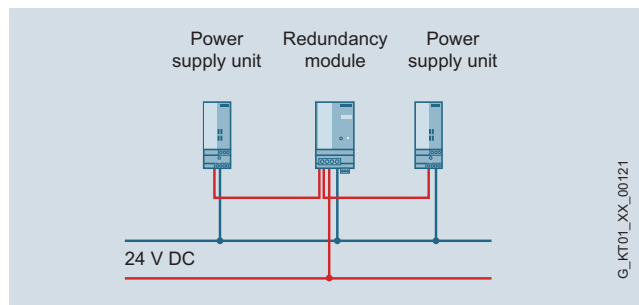
- High availability of the 24 V supply thanks to redundant configuration
- Power is reliably supplied even when a power supply fails
- Compact redundancy modules for power supply units up to 40 A
- Redundancy module 24 V/NEC Class 2 with limiting to 100 VA
- Diagnostic signal via LED and signaling contacts
- Adjustable switching threshold for LED and signaling contacts

Application

The redundancy module decouples two 24 V power supplies of the same type so that the loads are still supplied by the second power supply (1 + 1 redundancy) in case one of the two power supplies fails.

Redundancy modules support parallel switching of power supplies of the same type to increase performance while offering redundancy at the same time (N + 1 redundancy).

You can use the NEC Class 2 redundancy module to implement a redundant 24 V supply limited to an output power of 100 VA.

**Design**

For redundant configuration of a 24 V supply, the redundancy module decouples two SITOP 24 V power supplies of the same type by means of diodes in parallel operation. Depending on the output current of the power supplies, 1 to 2 redundancy modules may be required.

FunctionMonitoring

The redundancy module continuously monitors the output voltage of the connected power supplies. The switching threshold of 20 to 25 V can be set on the device. A signal indicates if the output voltage of one of the two power supplies sinks to the set value or below.

Signaling

The LED on the device and a changeover contact signal a faulty power supply.

Technical specifications (continued)

Article number	6EP1962-2BA00	6EP1964-2BA00	6EP1961-3BA21
Product	SITOP PSE202U	SITOP PSE202U	SITOP PSE202U
Mechanics			
Connection technology	screw-type terminals	screw-type terminals	screw-type terminals
Connections			
• Supply input	Input, output and ground: removable screw terminal, each 1 x 0.5 ... 2.5 mm ² single-core/ finely stranded	Input, output and ground: removable screw terminal, each 1 x 0.5 ... 2.5 mm ² single-core/ finely stranded	Input, output and ground: 1 screw terminal each for 0.33 ... 10 mm ² single-core/finely stranded
• Auxiliary	Relay contact: 2 screw terminal for 0.5 ... 2.5 mm ² single-core/ finely stranded	Relay contact: 2 screw terminal for 0.5 ... 2.5 mm ² single-core/ finely stranded	Relay contact: 3 screw terminal for 0.5 ... 2.5 mm ² single-core/ finely stranded
Width of the enclosure	30 mm	30 mm	70 mm
Height of the enclosure	80 mm	80 mm	125 mm
Depth of the enclosure	100 mm	100 mm	125 mm
Weight, approx.	0.125 kg	0.125 kg	0.5 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Removable spring-type terminal 6EP1971-5BA00	Removable spring-type terminal 6EP1971-5BA00	-
MTBF at 40 °C	678 210 h	3 273 000 h	6 471 654 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

**SITOP PSE202U
redundancy module**

6EP1961-3BA21

Input/output: 24 V DC/40 A
suitable for decoupling two
SITOP power supplies with a
maximum of 20 A output current

**SITOP PSE202U
redundancy module**

6EP1962-2BA00

Input/output: 24 V DC/NEC Class 2
suitable for decoupling two
SITOP power supplies output power
limited < 100 VA

**SITOP PSE202U
redundancy module**

6EP1964-2BA00

Input/output: 24 V DC/10 A
suitable for decoupling two
SITOP power supplies with a
maximum of 5 A output current

Accessories

Article No.

Device labeling plates

3RT1900-1SB20

Overview**Selectivity and rapid fault localization in 24 V feeders**

The SITOP PSE200U and SITOP select selectivity modules are the optimal expansion for all 24 V power supplies to distribute the load current to several feeders and to monitor it. Overload and short-circuit in one or more feeders is reliably detected and signaled.

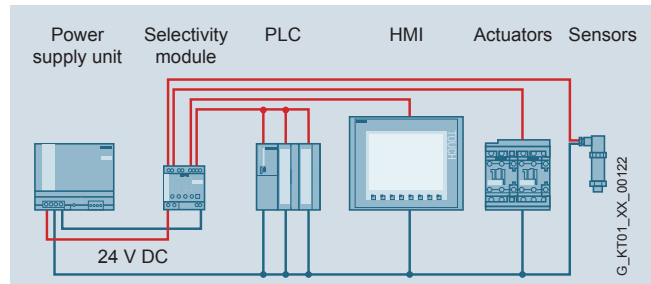
The electronics permit brief current peaks caused, for example, by high inrush currents, but disconnects feeders in the event of an extended overload. This is ensured even on high-resistance lines and in the case of "creeping" short-circuits. In such cases, miniature circuit breakers fail to trip, or trip too late, even if the power supply unit could deliver the required tripping current. The SITOP expansion module continues to supply the intact feeders with 24 V absolutely free of interruptions and feedback – a feature which avoids a possible total system failure.

Benefits

- Reliable shutdown in case of overload regardless of cable lengths or cable cross-sections
- 4 load feeders per module with individually adjustable response threshold for each output
- Two versions for remote diagnostics: Group signaling contact or single-channel signaling
- Evaluation via free-of-charge SIMATIC S7 function blocks (S7-1500/1200/300/400) for modules with single-channel signaling (PSE200U)
- LEDs for rapid on-site fault localization
- Remote reset possible from a central location (PSE200U)
- Simple commissioning thanks to manual switch on/off of outputs (PSE200U)
- Sequential connection of feeders to reduce total inrush current
- Sealable transparent cover over adjusters for currents and times protects against maladjustment (PSE200U)

Application

The selectivity module is used in conjunction with 24 V power supplies to distribute the load current over several feeders and to monitor the individual currents. Faults in individual circuits caused by overload or short-circuit are detected and selectively switched off so that further load current paths remain unaffected by the fault. This achieves fast fault diagnostics and minimizes downtimes.

**Design**

The selectivity module is specially designed for the response of switched-mode power supply units and the 24 V DC feeders to be supplied. Individual setting of the current allows optimum adaptation to the respective feeder.

FunctionMonitoring

The current per output is monitored by the selectivity modules; if the set threshold of the output is exceeded, the output is switched off according to a predefined time-current characteristic curve. In addition, the supplying 24 V input voltage is constantly being monitored. As soon as this voltage threatens to fail, the path with a higher current than the set threshold is disconnected immediately. All other feeders continue to be supplied without interruption.

Signaling

Signaling of the faulty feeder takes place by the LEDs on the device as well as via group signaling contact or single-channel signaling. The selectivity module with single-channel signaling outputs the status of the 4 outputs cyclically by means of a serial code which can be read in by a digital PLC input.

Free function blocks for SIMATIC S7-300/400/1200/1500 for STEP 7 and TIA Portal as well as SIMOTION CPUs with SIMOTION SCOUT are available for evaluation. This enables simple integration into the S7 diagnostics and host control or HMI systems.

More information, as well as the function blocks for download, can be found at:

SIMATIC S7:

<http://support.automation.siemens.com/WW/view/en/61450284>

SIMOTION:

<http://support.automation.siemens.com/WW/view/en/82555461>

Connection and disconnection of the outputs

During device startup you can select between simultaneous connection of all outputs as well as sequential connection or load-dependent connection of the outputs (to reduce the peak inrush currents).

Each output can be manually connected and disconnected on the device (for example, for commissioning or service). Disconnected outputs can be connected by means of remote reset (24 V input). Prerequisite is that the outputs were not disconnected manually on the device.

Technical specifications (continued)

Article number	6EP1961-2BA11	6EP1961-2BA31	6EP1961-2BA21	6EP1961-2BA41	6EP1961-2BA00
Product brand name	SITOP PSE200U	SITOP PSE200U	SITOP PSE200U	SITOP PSE200U	SITOP select
Type of current supply	Selectivity module, 4 x 3 A Common signal contact	Selectivity module, 4 x 3 A Single-channel signaling	Selectivity module, 4 x 10 A Common signal contact	Selectivity module, 4 x 10 A Single-channel signaling	Diagnosis module, 4 x 10 A
Mechanics					
Type of electrical connection	screw-type terminals	screw-type terminals	screw-type terminals	screw-type terminals	screw-type terminals
• at input	+24 V: 2 screw terminals for 0.5 ... 10 mm ² ; 0 V: 2 screw terminals for 0.5 ... 4 mm ²	+24 V: 2 screw terminals for 0.5 ... 10 mm ² ; 0 V: 2 screw terminals for 0.5 ... 4 mm ²	+24 V: 2 screw terminals for 0.5 ... 10 mm ² ; 0 V: 2 screw terminals for 0.5 ... 4 mm ²	+24 V: 2 screw terminals for 0.5 ... 10 mm ² ; 0 V: 2 screw terminals for 0.5 ... 4 mm ²	+24 V: 2 screw terminals for 0.33 ... 10 mm ² ; 0 V: 2 screw terminals for 0.22 ... 4 mm ²
• at output	Output 1 ... 4: 1 screw terminal each for 0.5 ... 4 mm ²	Output 1 ... 4: 1 screw terminal each for 0.5 ... 4 mm ²	Output 1 ... 4: 1 screw terminal each for 0.5 ... 4 mm ²	Output 1 ... 4: 1 screw terminal each for 0.5 ... 4 mm ²	Output 1 ... 4: 1 screw terminal each for 0.22 ... 4 mm ²
• for signaling contact	3 screw terminals for 0.5 ... 4 mm ²	1 screw terminals for 0.5 ... 4 mm ²	3 screw terminals for 0.5 ... 4 mm ²	1 screw terminals for 0.5 ... 4 mm ²	2 screw terminals for 0.22 ... 4 mm ²
• for auxiliary contacts	Remote reset: 1 screw terminal for 0.5 ... 4 mm ²	Remote reset: 1 screw terminal for 0.5 ... 4 mm ²	Remote reset: 1 screw terminal for 0.5 ... 4 mm ²	Remote reset: 1 screw terminal for 0.5 ... 4 mm ²	-
Width of the enclosure	72 mm	72 mm	72 mm	72 mm	72 mm
Height of the enclosure	80 mm	80 mm	80 mm	80 mm	90 mm
Depth of the enclosure	72 mm	72 mm	72 mm	72 mm	90 mm
Installation width	72 mm	72 mm	72 mm	72 mm	72 mm
Mounting height	180 mm	180 mm	180 mm	180 mm	190 mm
Net weight	0.2 kg	0.2 kg	0.2 kg	0.2 kg	0.4 kg
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
Product component belonging to	-	-	-	-	4x blade-type fuse 15 A
Mechanical accessories	Device identification label 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	Device identification label 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	Device identification label 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	Device identification label 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	-
MTBF at 40 °C	755 915 h	755 915 h	540 979 h	540 979 h	378 928 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

SITOP PSE200U 3 A

4-channel selectivity module
 Input: 24 V AC
 Output: 24 V DC/3A per channel
 output current adjustable 0.5 ... 3 A

- With common alarm signal
- With single-channel signaling

6EP1961-2BA11
6EP1961-2BA31

SITOP PSE200U 10 A

4-channel selectivity module
 Input: 24 V AC
 Output: 24 V DC/10 A per channel
 output current adjustable 3 ... 10 A

- With common alarm signal
- With single-channel signaling

6EP1961-2BA21
6EP1961-2BA41

SITOP select

6EP1961-2BA00

4-channel
 Input: 24 V DC
 Output: 24 V DC/10 A per channel
 Adjustable output current 2 ... 10 A

Accessories

Article No.

Device labels

3RT1900-1SB20

Overview

The SITOP PSE201U buffer module bypasses short-term power failures lasting a few seconds and can be used with all 24 V power supplies of the SITOP smart or SITOP modular product lines. The buffer module is equipped with maintenance-free capacitors and automatically takes over the 24 V power supply in case of a power supply failure.

The SITOP DC UPS modules offer protection in the event of extended power failures. The maintenance-free **DC UPS with capacitors** are able to reliably supply 24 V for several minutes, and the **DC UPS with battery modules** for several hours.

Benefits

- Bridging of short-term power failures in the time range of seconds
- Totally maintenance-free capacitors as energy storage
- Short charging times
- Parallel switching of several buffer modules possible
- Fast mounting onto standard rail and simple wiring

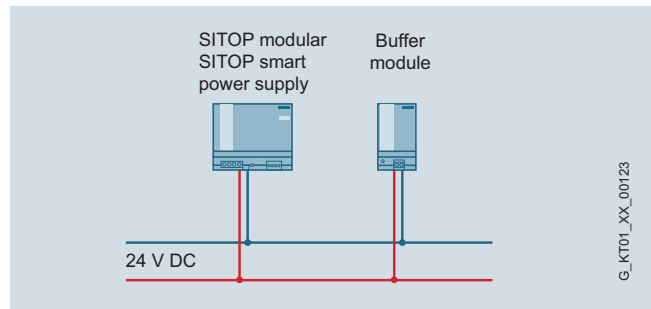
Application

With short-term power failures, the load current is backed up without interruption via the buffer module in combination with a SITOP smart or SITOP modular 24 V stabilized power supply.

Buffer times:

- 200 ms at 40 A
- 400 ms at 20 A
- 800 ms at 10 A

You can connect up to 8 buffer modules in parallel to extend the buffer time (max. 10 s).

**Design**

The buffer module is connected in parallel to the output of the SITOP smart or SITOP modular power supply. The connection to the power supply takes place via only 2 cables.

FunctionBuffering

In case of a power failure, the buffer module supplies the load current for the 24 V power supply by means of its energy storage units. Maintenance-free capacitors are used as energy storage units.

Signaling

The LED on the device signals a supply voltage > 20.5 V.

Technical specifications

Article No.	6EP1961-3BA01 SITOP PSE201U buffer module
Input/Output	Stabilized, isolated DC voltage
Rated voltage $U_{in \text{ rated}}$	24 V DC
Voltage range	24 ... 28.8 V
Control input	-
Rated output voltage $U_{out \text{ rated}}$	U_{in} – approx. 1 V
Rated current $I_{out \text{ rated}}$	40 A
Mains buffering	Backup time: <ul style="list-style-type: none"> • With 40 A load current: 200 ms • With 20 A load current: 400 ms • With 10 A load current: 800 ms • With 5 A load current: 1.6 s Reduces the backup time by 100 ms in combination with 6EP1 437-3BA10.
Buffering time, max.	10 s
Protection and monitoring	
Current limiting, static	Typ. 40 A
Short-circuit protection	Electronically
Signaling/alarm signals	
Status display	Green LED for "Supply voltage > 20.5 V"
Signaling	-
Safety	
Galvanic isolation	Yes, SELV acc. to EN 60950-1
Safety class	Class I
Safety test	Yes
CE marking	Yes
UL/cUL (CSA) approval	UL-Listed (UL 508) File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
Explosion protection	-
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 55022 Class B
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature range	0 ... +60 °C with natural convection
Transport and storage temperature range	-40 ... +85°C
Humidity class	Climate class 3K3 according to EN 60721, no condensation
Mechanics	
Connections	One screw-type terminal, each for + and - for 0.5 ... 10 mm ² solid/finely stranded
Dimensions (W x H x D) in mm	70 x 125 x 125
Weight, approx.	1.2 kg
Mounting	Can be snapped onto standard mounting rail EN 60715 35x7.5/15

Ordering data

Article No.

SITOP PSE201U buffer module	6EP1961-3BA01
For SITOP smart and SITOP modular buffer time 100 ms to 10 s dependent on load current	
Accessories	
Device labeling plates	3RT1900-1SB20

Overview



The SITOP inrush current limiter is used to reliably reduce the starting currents that are caused, for example, by transformers or with pulse-controlled power supplies by the rectifier circuit on the input side with capacitor charging.

In 1-phase AC networks, it is supplied with rated voltages of 100 V, 120 V or 230 V and in 2-phase and 3-phase AC networks with rated voltages of 208 V to 480 V on the line side upstream of transformers or power supplies and it limits the inrush current independent of temperature, for example, up to 10 A at 230 V by means of an installed fixed resistor. In static operation, the limit resistance is bypassed after approx. 120 ms to reduce the power losses generated.

Technical specifications

Article number	6EP1967-2AA00
Input	AC voltage 1-phase, 2-phase, 50/60 Hz
Rated voltage $U_{in \text{ rated}}$	100 ... 480 V AC
Voltage range	85 ... 575 V AC
Output	
Rated voltage $U_{out \text{ rated}}$	In accordance with the supply voltage
Rated current $I_{out \text{ rated}}$	Max. 10 A
Parallel switching for enhanced performance	No
Protection and monitoring	
Current limiting, static	-
Short-circuit protection	Must be ensured with an upstream protective device
Signaling/alarm signals	
Status display	Green LED
Alarm signals	-
Safety	In accordance with EN 60950-1 and EN 50178
Galvanic isolation	No
Safety class	Class II
CE marking	Yes
UL/cUL (CSA) approval	Yes, cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 61000-6-3
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature range	0 ... +60 °C with natural convection
Transport and storage temperature range	-40 ... +85 °C
Humidity class	Climate class 3K3 according to EN 60721, no condensation
Mechanics	
Connections	Input and output (L1, N): One screw terminal each for 0.2 ... 2.5 mm ² , solid/finely stranded
Dimensions (W x H x D) in mm	22.5 x 80 x 91
Weight, approx.	0.12 kg
Mounting	Can be snapped onto standard mounting rail EN 60715 35x7.5/15

Ordering data

Article No.

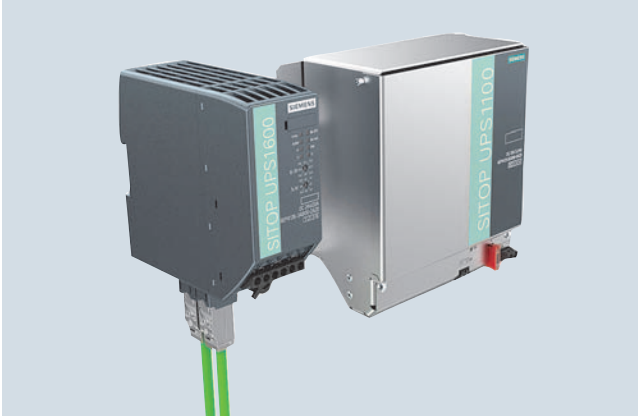
SITOP making current limiter
Ballast for SITOP power supplies
Input:
100 ... 480 V AC, 10 A max
Output:
100 ... 480 V AC, 10 A max

6EP1967-2AA00

SITOP DC UPS uninterruptible power supplies

Introduction

Overview



SITOP offers a comprehensive portfolio to protect against power failures with durations from a few seconds to several hours, ranging from buffer modules to system-integrated DC UPS units. Selection is based on the energy storage unit used, the associated ambient conditions, performance and functionality.

The selection matrix should help you to find the right 24 V buffering for your application:

SITOP modules for 24 V buffering	Buffer module ¹⁾	UPS500	UPS1600	DC UPS
Energy storage units				
24 V buffering up to	10 s	Minutes	Hours	Hours
Storage medium	Electrolytic capacitors	Double-layer capacitors	Lead-gel batteries, rechargeable lithium iron phosphate batteries	Lead-gel batteries
Lifetime dependent on temperature. The specified time refers to a fall to 50 % of the original capacity in the case of lead batteries and 80 % in the case of capacitors.	0 ... +50 °C: > 8 years	0 ... +50 °C: > 8 years	+20 ... +40 °C: 4 ... 1 years (high-temperature rechargeable battery: +20 ... +60 °C: > 10 ... 1 years)	+20 ... +40 °C: 4 ... 1 years (high-temperature rechargeable battery: +20 ... +60 °C: > 10 ... 1 years)
Temperature range	0 ... +60 °C	0 ... +60 °C	0 ... +40 °C (high-temperature rechargeable battery: -40°...+60°C)	0 ... +40 °C (high-temperature rechargeable battery: -40°...+60°C)
Ventilation required	-	-	•	•
Degree of protection	IP20	IP20/ IP65 (UPS500P)	IP00	IP00
UPS module/electronics				
Degree of protection	IP20	IP20/ IP65 (UPS500P)	IP20	IP20
Max. rated output current	40 A	15 A	40 A	40 A
Max. dynamic overload current	40 A (200 ms)	25 A (200 ms)	120 A (30 ms) / 60 A (5 s/min)	56 A (80 ms)
Interfaces	-	I/O, USB	I/O, USB, Ethernet/ PROFINET	I/O, serial, USB
Information about operation and diagnostics via				
• Signaling contact	-	•	•	•
• OPC servers	-	•	•	•
• Web server	-	-	•	-
• S7 function blocks	-	-	•	-
• WinCC faceplate	-	-	•	-
Shutdown of multiple PCs/ PLCs	-	-	•	-
Starting from the battery, without supply voltage (stand-alone mode)	-	-	•	-
Engineering via				
• Software tool (PC)	-	•	•	•
• TIA Portal	-	-	•	-

¹⁾ for SITOP smart and SITOP modular power supply units

More information

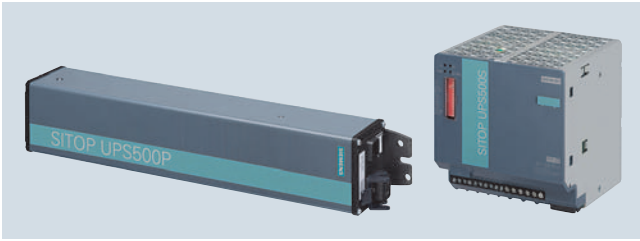
The SITOP Selection Tool offers detailed selection guidance according to criteria such as the required backup time, nominal current or peak current:

<http://www.siemens.com/sitop-selection-tool>

SITOP DC UPS uninterruptible power supplies

DC UPS with capacitors

Overview



SITOP 24 V power supplies can be expanded with a SITOP UPS500 uninterruptible DC power supply (DC UPS) for bridging short-term power failures in the order of minutes. For PC-based automation solutions, the high-capacity double-layer capacitors of the SITOP UPS500 supply enough energy to back up the operation and application data and to shut down software applications in a defined manner. You can increase the buffer times using SITOP PSU501S expansion modules (up to 3).

The IP65 version SITOP UPS500P in long metal housing is ideally suited to distributed use.

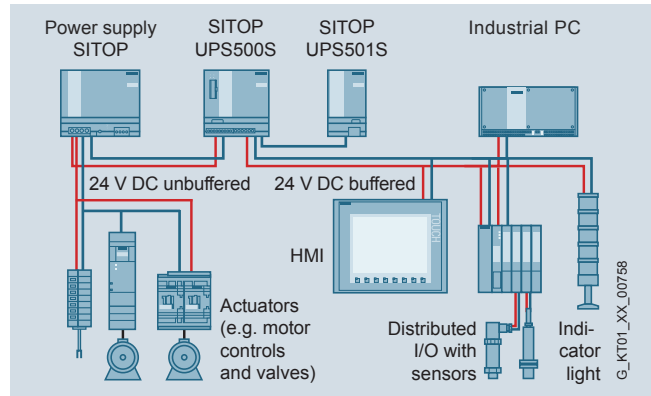
Benefits

- 24 V buffering for a few minutes to allow data to be backed up and applications to be closed.
- Absolutely maintenance-free
- Long lifetime, even at high temperatures
- High ambient temperatures up to +60 °C
- Short charging times
- No ventilation is required since no gas is emitted
- Distributed applications possible without control cabinet
- Software tool, free of charge, for easy configuring and integrating in PC-based systems

Application

The high-capacitance double-layer capacitors bridge power failures for a few minutes. The time is normally sufficient, for example, for the safe shutdown of PC-based automation systems. The USB interface and a free software tool enable easy communication with the PC.

The capacitors have an extremely long life even at high temperature, and can be used at ambient temperatures of up to 60 °C. SITOP UPS500P in IP65 degree of protection can also be installed outside the control cabinet in a distributed configuration.



Configuration with SITOP UPS500S: 24 V buffering for backing up process data and performing a controlled shutdown of a PC. To relieve the load on the UPS, the actuators are supplied directly from the power supply unit.

Design

SITOP UPS500S

- Compact 24 V/ 15 A basic units with integrated energy storage units of 2.5 or 5 kW
- Digital inputs/outputs and USB interface
- For combination with up to three UPS501S expansion modules (5 kW each) to extend the buffering time
- Metal housing in IP20 degree of protection for mounting on standard rails

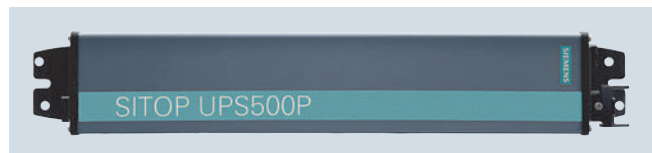


SITOP UPS501S expansion module

- Additional energy storage (5 kW)
- Up to 3 expansion modules can be connected to a SITOP UPS500S to extend the buffer times
- Can be easily connected to SITOP UPS500S via a user-friendly plug-in system
- Complete with balancing and safety circuits

SITOP UPS500P

- 24 V/ 7 A basic units with integrated energy storage units of 5 or 10 kW
- USB interface
- Rugged aluminum housing in IP65 degree of protection for distributed applications
- Screw mounting in all mounting positions



Function

SITOP DC UPS software tool

Via the USB interface, all relevant messages about the status of the uninterruptible DC power supply can be transmitted to a PC (e.g. SIMATIC IPC). The DC UPS can also be configured via the USB interface.

The SITOP DC UPS software provides the user with a free tool that is extremely easy to use for the purpose of monitoring and configuring the DC UPS. Signals sent from the uninterruptible DC power supply can be processed on the PC. In monitoring mode, the statuses of the uninterruptible DC power supply are visualized on the PC.

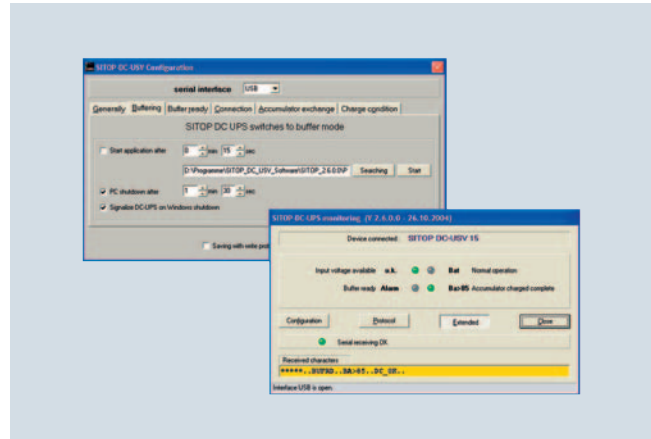
Safe shutdown in the event of a power failure and automatic PC restart are supported. It is also possible to freely define responses to the different operating states of the uninterruptible DC power supply, so that extremely flexible integration into a wide variety of applications is possible.

Overview of configuration possibilities:

- Times for shutting down the PC
- UPS switch-off
- Further processing of all signals, e.g. linking to proprietary software or WinCC flexible
- Monitoring and display of UPS operating status
- OPC server for linking signals to proprietary applications
- Automatic restarting of IPCs when power is restored during shutdown

The software runs under the operating systems Windows 2000, Windows XP, Windows Vista and Windows 7. Free download from:

<http://support.automation.siemens.com/WW/view/en/48946053>



Monitoring and configuration window of software V3 for SITOP DC UPS

SITOP DC UPS uninterruptible power supplies

DC UPS with capacitors

Technical specifications

The UPS500S can be extended to 20 kW using UPS501S expansion modules to extend the buffering time.

The table shows the maximum buffering time for the possible configurations and the two UPS500P units for different load currents.

The charging current can be set to 1 A or 2 A with the UPS500S.

Selection table SITOP UPS500 (optional with SITOP UPS501S expansion module) and mains buffering times

Buffering and charging times										
SITOP UPS500S/501S configurations									UPS500P	
Basic unit	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	5 kW	10 kW
Expansion modules	-	-	1 × 5 KWs	1 × 5 KWs	2 × 5 KWs	2 × 5 KWs	3 × 5 KWs	3 × 5 KWs	-	-
Total energy	2.5 kW	5 kW	7.5 kW	10 kW	12.5 kW	15 kW	17.5 kW	20 kW	5 kW	10 kW
Load current	Buffer times									
0.5 A	134 s	236 s	390 s	478 s	632 s	748 s	851 s	1007 s	284 s	647 s
0.8 A	90 s	167 s	266 s	346 s	440 s	527 s	580 s	706 s	190 s	435 s
1 A	75 s	138 s	219 s	296 s	365 s	414 s	490 s	572 s	153 s	351 s
2 A	38 s	76 s	122 s	156 s	203 s	230 s	265 s	306 s	80 s	152 s
3 A	26 s	52 s	82 s	106 s	136 s	159 s	186 s	213 s	53 s	108 s
4 A	19 s	39 s	61 s	81 s	101 s	120 s	139 s	160 s	40 s	84 s
5 A	15 s	31 s	49 s	65 s	81 s	95 s	111 s	130 s	30 s	68 s
6 A	12 s	26 s	40 s	55 s	67 s	80 s	94 s	106 s	25 s	57 s
7 A	10 s	21 s	34 s	47 s	58 s	69 s	81 s	82 s	21 s	49 s
8 A	8 s	18 s	29 s	40 s	50 s	59 s	69 s	79 s	-	-
10 A	6 s	15 s	23 s	32 s	39 s	47 s	54 s	62 s	-	-
12 A	4 s	12 s	19 s	26 s	32 s	38 s	44 s	52 s	-	-
15 A	3 s	9 s	14 s	20 s	25 s	30 s	35 s	40 s	-	-
Charing current	Charging times									
2 A	54 s	120 s	158 s	223 s	263 s	318 s	355 s	417 s	130 s	360 s
1 A	110 s	205 s	311 s	425 s	503 s	625 s	695 s	816 s	-	-

Important information for selecting the energy storage units:

When the mains buffering times were determined, the discharge period of new or non-aged, completely charged capacitors was used as a basis.

At a continuous ambient temperature of +50 °C, a loss of capacity of approx. 20% must be considered after a service life of 8 years.

SITOP DC UPS uninterruptible power supplies

DC UPS with capacitors

Ordering data

Article No.

SITOP UPS500S

- DC UPS basic device 15 A
- with USB interface and 2.5 kW
 - with USB interface and 5 kW

6EP1933-2EC41
6EP1933-2EC51

SITOP UPS501S

Expansion module 5 kW for
UPS500S

6EP1935-5PG01

SITOP UPS500P

- DC UPS basic device 7 A
- with USB interface and 5 kW
 - with USB interface and 10 kW

6EP1933-2NC01
6EP1933-2NC11

Accessories

Article No.

Connector set for UPS500P

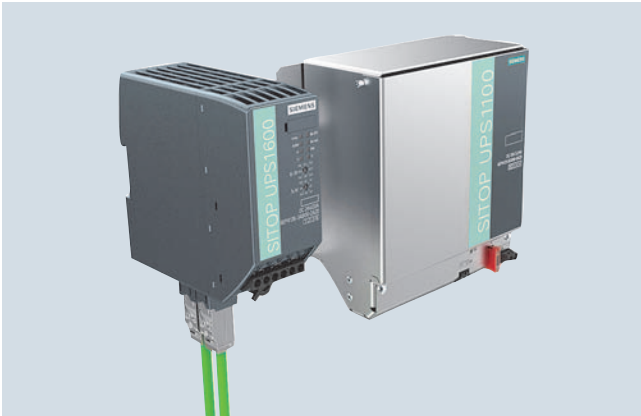
consisting of connector for input
and output with pre-assembled
USB cable (2 m long)

6EP1975-2ES00

More information

The SITOP Selection Tool offers detailed selection guidance according to criteria such as the required backup time, nominal current or peak current. Available at:
<http://www.siemens.com/sitop-selection-tool>

Overview



By combining one DC UPS module SITOP UPS1600 with at least one UPS1100 battery module and a SITOP power supply unit, longer power failures can be bridged without any interruption. The intelligent battery management automatically detects the UPS1100 energy storage unit, ensures optimized temperature-specific charging and continuous monitoring. The compact DC UPS modules have overload capability, for example, to supply the inrush current of industrial PCs. In stand-alone mode, they support starting from the battery.

The DC UPS communicates openly over a USB or Ethernet/PROFINET port. It is easily integrated into the PC or PLC environment over the two Ethernet/PROFINET ports. Total integration in TIA provides user-friendly engineering in the TIA Portal and is supported with ready-to-use function blocks for S7 user programs and WinCC faceplates for fast visualization.

SITOP UPS Manager supports easy monitoring and configuration in PC systems, e.g. shutdown of several PCs in accordance with the master-slave principle. The integrated web server supports remote monitoring of the DC UPS.

Benefits

- 24 V buffering for a few hours for the purpose of continuing processes
- Open communication over USB or two Ethernet/PROFINET ports
- High-performance DC UPS modules in space-saving, slim design
- High overload capability for mains and buffering operation
- Starting from the battery module supports stand-alone mode, e.g. for starting generators
- Easy configuration thanks to automatic detection of battery modules
- High reliability and availability due to monitoring of the operational readiness, battery feeder, aging and charging status
- Battery protecting charging due to temperature-specific charging characteristic
- Defined shutdown of several PCs or controllers on one UPS (versions with Ethernet/PROFINET)
- Remote monitoring via integrated web server (versions with Ethernet/PROFINET)
- Time-saving engineering in PC-based systems via SITOP UPS Manager (versions with USB or Ethernet/PROFINET)
- SITOP UPS Manager with OPC UA server facilitates flexible, multi-vendor communication with other systems
- Full integration in TIA saves time and costs during the planning stage and in operation (versions with Ethernet/PROFINET)
- User-friendly engineering in the TIA Portal
- SIMATIC S7 function blocks for easy integration in STEP 7 user programs
- Fast integration in operator control and monitoring with WinCC faceplates
- Direct integration in SIMATIC PCS 7 via SITOP library

SITOP DC UPS uninterruptible power supplies

UPS1600 DC UPS modules

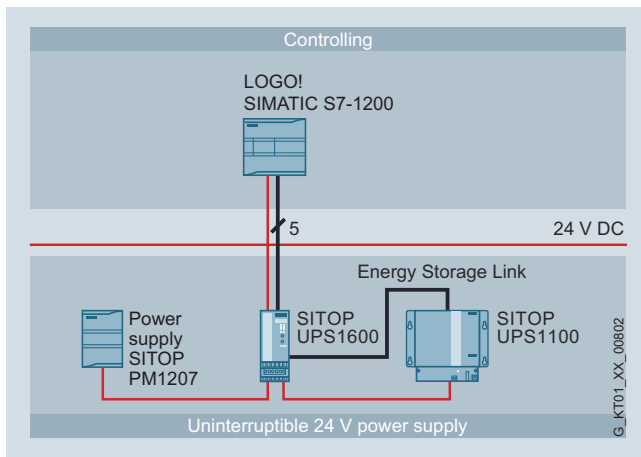
Application

The battery modules that can be connected in parallel bridge power failures for a few hours. This supports the continued operation of processes or parts of them. The function "Starting from the battery" means that the UPS1600 can also be used in stand-alone mode without connection to the supply.

Depending on the communication requirements between the DC UPS and the automation components to be protected against power failure, the version of UPS1600 can be selected accordingly.

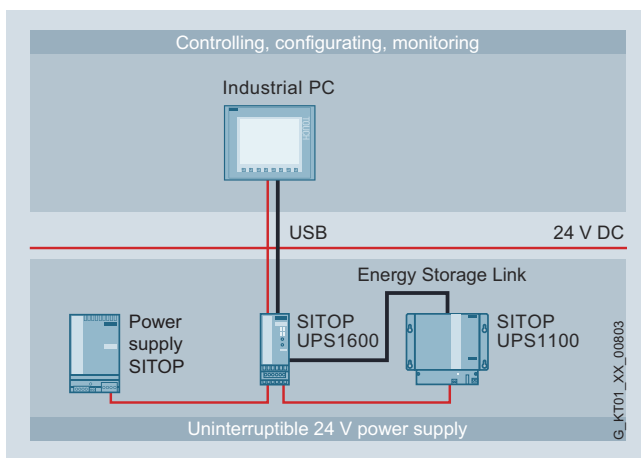
Buffering of simple automation applications

In simple applications with mini PLCs (e.g. obstruction lights, stand-alone hydro-electric plants), 24 V buffering is performed by the UPS1600 without a communications interface. The status messages are transferred to the PLC via the digital outputs (isolated).



Buffering of applications with automation computer

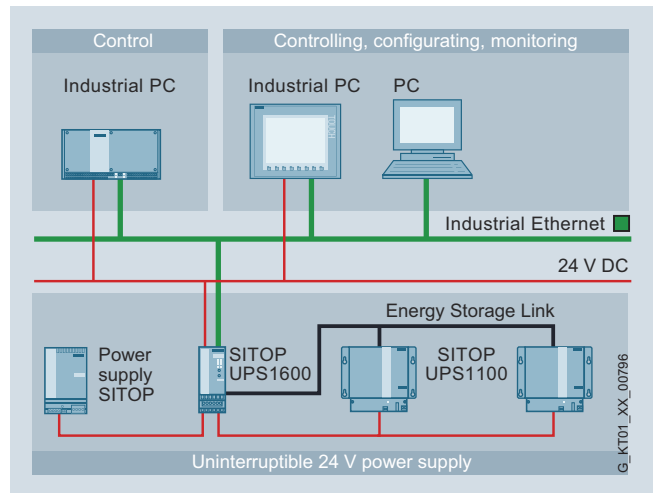
The UPS1600 with a USB interface is used to buffer automation solutions that are controlled by an industrial PC. All operating and configuring data is communicated over the PC interface.



Communication over Ethernet/PROFINET offers the most comprehensive possibilities for diagnostics and system integration. The UPS1600 can be directly integrated into the LAN infrastructure over its two ports.

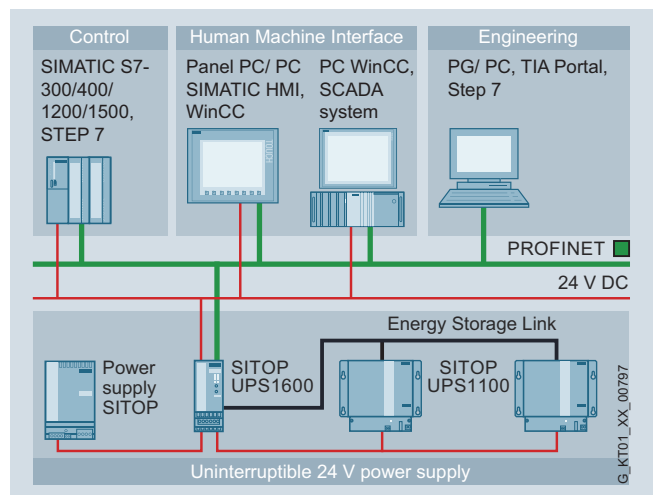
Buffering of applications with networked (Industrial Ethernet) automation computers

The UPS1600 with Industrial Ethernet interface protects complex PC-based applications from power failure. Configuration and monitoring is performed using the PC software SITOP UPS Manager. It also supports defined shutdown of several PCs in accordance with the master-slave principle.



Buffering of applications with networked (PROFINET) automation components

For buffering sensitive plant components (e.g. a pumping station with telecontrol) or complete controller solutions (e.g. machine tools) that are integrated into a networked automation solution, the UPS1600 with PROFINET is the perfect choice. Total integration in TIA offers unique advantages for engineering and operation (e.g. diagnostics or visualization). For example, in buffer mode, several controllers can be brought to a defined independently of each other.



Design



- Compact DC UPS modules UPS1600 24 V/10 A, 20A and 40 A with digital inputs and outputs, optionally with USB interface or two Ethernet/PROFINET ports
- UPS1100 battery modules 1.2 Ah, 3.2 Ah, 7 Ah and 12 Ah with lead rechargeable batteries, UPS1100 2.5 Ah battery module with pure-lead rechargeable batteries and UPS1100 5 Ah battery module with lithium-ion technology.

Function

SITOP UPS1600 web server

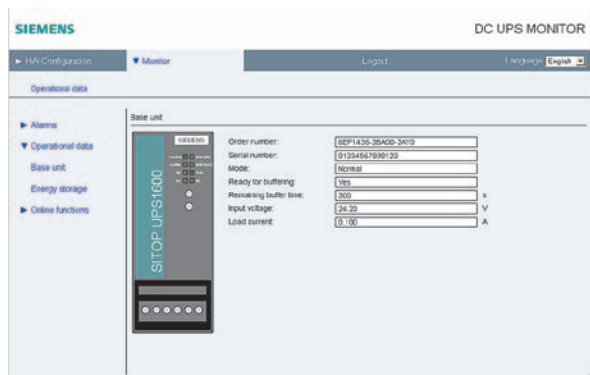
The SITOP UPS1600 with Ethernet/PROFINET has an integrated web server that supports remote monitoring and control of the uninterruptible power supply. Using HTTPS ensures encrypted and safe data transmission.

Remote monitoring and control of:

- Hardware configuration data
- Remote monitoring
- Operating data of the UPS1600 basic unit and the connected UPS1100 battery module
- Alarm messages

Remote access via:

- Firefox 34 or higher, or Internet Explorer 10, 11 (IE 8 with charging of SVG player)
- IP address
- Password



The password-protected web server supports viewing of the configuring and operating data.

SITOP UPS1600 software

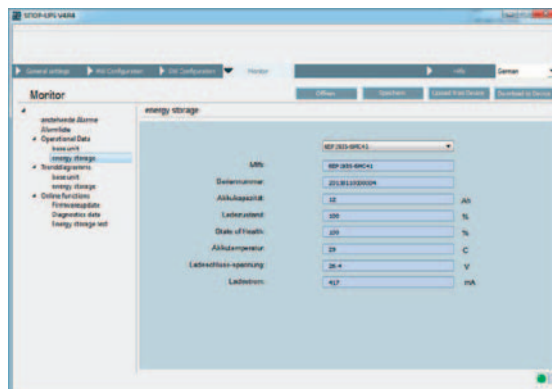
Software tools support convenient integration of the SITOP UPS1600 in both PC-based and PLC-based systems. They make configuring and visualizing the DC UPS easier and the user benefits from the high performance of the SITOP UPS1600.

Software for open, PC-based automation systems

SITOP UPS Manager

Configuration and monitoring is performed easily using the free PC software SITOP UPS Manager. It enables the reactions of the PC to the operating states of the DC UPS to be freely selected and offers comprehensive diagnostic options:

- Configuration
 - Connection via USB or Ethernet
 - All the relevant parameters can be configured in UPS Manager and transferred to the UPS1600
 - Configuration of "non-coded" rechargeable batteries is possible
 - The reactions of the PC to the operating states of the UPS can be freely selected, e.g. termination of software applications
 - Support for reliable downloading of several PCs according to the master-slave principle
 - The configurations can be saved locally
 - Integrated OPC UA server
 - Updating of the UPS1600 firmware is possible
 - Assignment of IP addresses and device names of the UPS1600
 - Can run under Windows XP, Windows 7 (32-bit and 64-bit) operating systems
- Monitoring
 - Readout and display of alarms, statuses and operating variables of the UPS1600 and the connected energy storage unit
 - Tracing of history in trend diagrams



Monitor window for battery status in SITOP UPS Manager



Trend diagram for load current in SITOP UPS Manager

Function (continued)**Software for TIA-based automation systems**

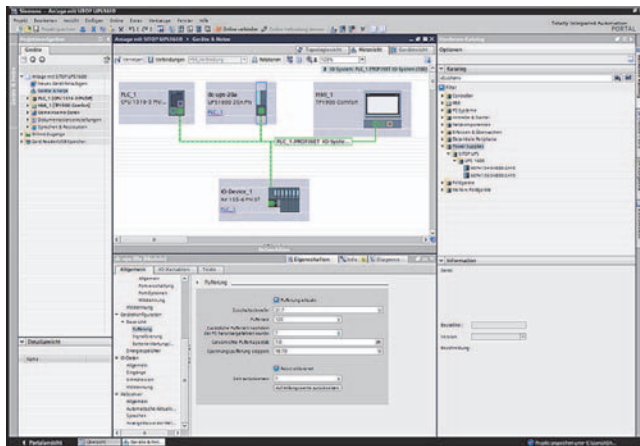
For convenient integration of the DC UPS in the TIA environment, different software modules are available.

Engineering is simple via the TIA Portal. The data for UPS1600 is stored in the hardware catalog version V14 and higher. Special function blocks for SIMATIC S7-300, S7-400, S7-1200 and S7-1500 also support integration in the STEP 7 user program.

The comprehensive diagnostics data of the UPS1600 power supply can be visualized using prepared UPS faceplates for WinCC.

TIA Portal

- Convenient and fail-safe integration of SITOP UPS1600 in the PROFINET network by means of drag-and-drop
- Convenient configuration of SITOP UPS1600 basic units with Ethernet/PROFINET and the UPS1100 battery module simply by selecting from the TIA Portal hardware catalog
- Free download of HSP (Hardware Support Package) for TIA Portal version V12 SP1 or higher available at <http://support.automation.siemens.com/WW/view/en/75854606>
- Free GSD file (Generic Station Description) for STEP 7 V 5.5 <http://support.automation.siemens.com/WW/view/en/75854605>



Establishing the PROFINET connection between the SITOP UPS1600 and the controller is easy and fail-safe in the TIA Portal

STEP 7 function blocks

Function blocks are available for STEP 7 user programs on SIMATIC S7-300/400/1200/1500. They allow further processing of the DC UPS operating data.

- Function blocks for STEP 7 V5.5
- Function blocks from STEP 7 V12 and higher

Free download:

<http://support.automation.siemens.com/WW/view/en/75854608>

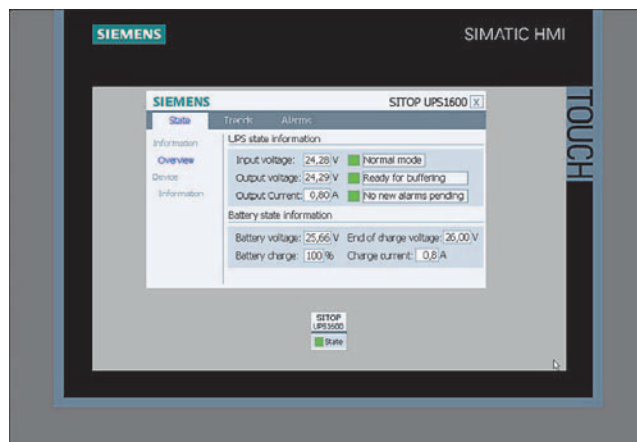
Faceplates for WinCC

Ready-to-use faceplates save programming time for visualization of the uninterruptible power supply. The faceplates show all relevant statuses and values of the DC UPS. They are available for the following systems:

- Faceplates for WinCC V7.2
- Faceplates for WinCC flexible 2008 SP3
- Faceplates for WinCC Comfort/Advanced/Professional V12

Free download:

<http://support.automation.siemens.com/WW/view/en/75854608>



The pre-compiled WinCC faceplates show all the relevant UPS data in a clearly comprehensible display. An icon with color coding for the operating state is also available

Software for SIMATIC PCS 7 process control system

The SITOP library is available with blocks and faceplates for direct integration into SIMATIC PCS 7. The SW blocks in the SIMATIC S7 supply the faceplate on the user interface of the process control system with operating and diagnostics data, generate messages and ensure connection to the maintenance system of PCS 7. This means that PCS 7 users automatically receive information about operating state conditions, maintenance requirements (e.g. battery replacement) and disturbances (e.g. power failures). This ensures constant transparency of the 24V supply in the control system. The SITOP library supports the following SIMATIC PCS 7 versions:

- SIMATIC PCS 7 V8.0 with SP2
- SIMATIC PCS 7 V8.1
- SIMATIC PCS7 V8.1 with SP1
- SIMATIC PCS7 V8.2 available soon

Free download at:

<https://support.industry.siemens.com/cs/ww/en/view/109476154>

SITOP DC UPS uninterruptible power supplies

UPS1600 DC UPS modules

Technical specifications

The table shows the maximum buffering times for the SITOP UPS1100 battery modules for different load currents:

The SITOP Selection Tool offers detailed selection guidance according to criteria such as the required backup time, load current, peak current and battery connection threshold: <http://www.siemens.com/sitop-selection-tool>

Product brand name	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100
Type of power supply	24 V/1.2 Ah	24 V/2.5 Ah high temperature	24 V/3.2 Ah	24 V/5 Ah LiFePo	24 V/7 Ah	24 V/12 Ah
Article No.	6EP4131-0GB00-0AY0	6EP4132-GB00-0AY0	6EP4133-0GB00-0AY0	6EP4133-0JB00-0AY0	6EP4134-0GB00-0AY0	6EP4135-0GB00-0AY0
Load current	Buffer times					
1 A	34 min	1.7 h	2.5 h	5.2 h	5.4 h	10.3 h
2 A	15 min	54.6 min	1 h	2.5 h	2.6 h	4.8 h
3 A	9 min	32.9 min	39 min	1.7 h	1.6 h	3 h
4 A	6 min	20.6 min	27 min	1.25 h	1.2 h	2.3 h
6 A	3.5 min	14.3 min	17.5 min	50.6 min	41 min	1.4 h
8 A	2 min	10.5 min	12 min	37.8 min	28 min	1 h
10 A	1 min	7.2 min	9 min	30.2 min	22 min	48.6 min
12 A	-	6 min	7 min	25.1 min	17 min	40.3 min
14 A	-	4.5 min	5 min	21.6 min	15 min	33.6 min
16 A	-	4.1 min	4 min	18.8 min	12.5 min	26 min
20 A	-	2.9 min	1 min	12.9 min	9.1 min	19.6 min
30 A	-	-	-	-	4.6 min	12.1 min
40 A	-	-	-	-	2.8 min	8.5 min

Important information for selecting the battery capacity:

Determination of the mains buffering times is based on the discharge period of new or non-aged, completely charged battery modules at a battery temperature not below +25 °C to the shut-down of the DC UPS.

Battery aging reduces the still available battery capacity up until the end of the service life to typically around 50% of the original capacity value when new (1.2 Ah/3.2 Ah/7 Ah, etc.) and the internal resistance increases. When the message "Battery charge > 85%" appears, only around 50% x 85% = approx. 43% of the originally available capacity can be assumed at the end of the battery service life.

At battery temperatures below +25 °C, the available capacity drops approximately by another 30% at +5 °C battery temperature, to approximately 70% of the approximately remaining 43%. There is then only around 30% of the original capacity available.

A significantly larger battery capacity must therefore be selected when configuring the plant: A drop to approx. 50% is compensated for by selecting 1 / approx. 0.5 = approx. double the battery capacity (required as per the table for the relevant load current and the relevant buffering time). Available capacity of approx. 43% is compensated for by selecting 1 / approx. 0.43 = approx. 2.33 times the battery capacity. Available capacity of approx. 30% is compensated for by selecting 1 / approx. 0.3 = approx. 3.33 times the battery capacity.

Recommendation:

Instead of installing double the battery capacity, regular battery replacement halfway through the expected service life (reduction of capacity to approx. 50%) can be more advisable for the following reasons: Capacity does not drop below 100% until the halfway point of the expected battery life (or slightly beyond). With regular replacement after this point, only the single battery capacity (instead of double capacity) must be installed due to aging (-> neutral in price with regard to battery module costs, but only requires half the space).

Replacing the battery after half its service life dispenses above all with the large scatter range of the residual capacity at the end of the service life, which is not accurately defined by battery manufacturers (after the full time, many batteries are above, but many are also below the average 50% residual capacity, that is to say, even if double the capacity is installed, the influence of aging at the end of service life is not reliably compensated for, rather only typically) -> When replacing after half the expected service life, the configured buffering time is maintained with considerably greater reliability.

In the case of batteries stored in cool conditions (not above +25 °C) and for not longer than approximately 4 months, the following service life can be assumed, strongly dependent on battery temperature:

Battery temperature	Drop to approx. 50% of residual capacity	Recommendation: Replace (at 100% of residual capacity) all	Alternative recommendation
+20 °C	4 years	2 years	
+30 °C	2 years	1 year	
+40 °C	1 year	0.5 years	Install double capacity and replace (1 x per year)

In normal cases (installation in the coolest location in the control cabinet at approx. +30 °C), the battery should be replaced with single installed battery capacity in accordance with the selection table after 1 year of operation!

After a power failure, the battery module is disconnected from the loads at the end of the selected buffering time either automatically or electronically by opening the On/Off control circuit, and as soon as the 24 V input voltage is available again, it is quickly re-charged with the charge current of the relevant DC UPS module (with I-U charge characteristic: First constant current I for fast charging, and changeover to constant voltage U to maintain the charge when the battery is almost full).

Technical specifications (continued)

Article number	6EP4134-3AB00-0AY0 6EP4134-3AB00-1AY0 6EP4134-3AB00-2AY0	6EP4136-3AB00-0AY0 6EP4136-3AB00-1AY0 6EP4136-3AB00-2AY0	6EP4137-3AB00-0AY0 6EP4137-3AB00-1AY0 6EP4137-3AB00-2AY0
Product brand name	SITOP UPS1600	SITOP UPS1600	SITOP UPS1600
Type of current supply	DC UPS 24 V/10 A	DC UPS 24 V/20 A	DC UPS 24 V/40 A
Mechanics			
Type of electrical connection	screw-type terminals	screw-type terminals	screw-type terminals
• at input	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.5 ... 16 mm ² /20 ... 6 AWG
• at output	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.5 ... 16 mm ² /20 ... 6 AWG
• for battery module	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG	24 V DC: 2 screw terminals for 0.5 ... 16 mm ² /20 ... 6 AWG
• for control circuit and status message	14 screw terminals for 0.2 ... 1.5 mm ² /24 ... 16 AWG	14 screw terminals for 0.2 ... 1.5 mm ² /24 ... 16 AWG	14 screw terminals for 0.2 ... 1.5 mm ² /24 ... 16 AWG
Width of the enclosure	50 mm	50 mm	70 mm
Height of the enclosure	125 mm	125 mm	125 mm
Depth of the enclosure	125 mm	125 mm	150 mm
Required spacing			
• top	50 mm	50 mm	50 mm
• bottom	50 mm	50 mm	50 mm
• left	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm
Net weight	0.38 kg	0.39 kg	0.65 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Battery module	Battery module	Battery module
MTBF at 40 °C	415 574 h	408 654 h	372 738 h
Equipment marking acc. to DIN EN 81346-2	T	T	T
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

SITOP UPS1600 24 V/ 10 A	6EP4134-3AB00-0AY0
• With USB interface	6EP4134-3AB00-1AY0
• With 2 Ethernet/ PROFINET interfaces	6EP4134-3AB00-2AY0
SITOP UPS1600, 24 V/ 20 A	6EP4136-3AB00-0AY0
• With USB interface	6EP4136-3AB00-1AY0
• With 2 Ethernet/ PROFINET interfaces	6EP4136-3AB00-2AY0
SITOP UPS1600 24 V/ 40 A	6EP4137-3AB00-0AY0
• With USB interface	6EP4137-3AB00-1AY0
• With 2 Ethernet/ PROFINET interfaces	6EP4137-3AB00-2AY0

SITOP DC UPS uninterruptible power supplies

UPS1100 battery modules

Overview



SITOP UPS1100 maintenance-free battery module with 1.2 Ah to 12 Ah and choice of different capacitors (lead, pure lead, lithium iron phosphate = LiFePo) for SITOP UPS1600 DC UPS module. The intelligent UPS1600 battery management charges the UPS1100 with the optimal, temperature-controlled charging characteristics and monitors the status (operating data and diagnostics information) via the energy storage link of the connected battery modules. For longer buffer times, up to six battery modules can be connected in parallel. Mounting onto standard mounting rail or directly to the wall.

Technical specifications

Article number	6EP4131-0GB00-0AY0	6EP4132-0GB00-0AY0	6EP4133-0GB00-0AY0	6EP4133-0JB00-0AY0	6EP4134-0GB00-0AY0	6EP4135-0GB00-0AY0
Product	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100	SITOP UPS1100
Product type	Lead battery	Pure-lead battery	Lead battery	LiFePo battery	Lead battery	Lead battery
Battery capacity	1.2 Ah	2.5 Ah	3.2 Ah	5 Ah	7 Ah	12 Ah
Charging current						
charging voltage						
End-of-charge voltage at DC						
• at -10 °C recommended	28.02 V	28.02 V	28.02 V	28.8 V	28.02 V	28.02 V
• at 0 °C recommended	28.02 V	28.02 V	28.02 V	28.8 V	28.02 V	28.02 V
• at 10 °C recommended	27.8 V	27.8 V	27.8 V	28.8 V	27.8 V	27.8 V
• at 20 °C recommended	27.3 V	27.3 V	27.3 V	28.8 V	27.3 V	27.3 V
• at 30 °C recommended	26.8 V	26.8 V	26.8 V	28.8 V	26.8 V	26.8 V
• at 40 °C recommended	26.6 V	26.6 V	26.6 V	28.8 V	26.6 V	26.6 V
• at 50 °C recommended	26.3 V	26.3 V	26.3 V	28.8 V	26.3 V	26.3 V
• at 60 °C recommended	-	26 V	-	-	-	-
Permissible charging current, max.	0.3 A	5 A	0.8 A	2.1 A	1.75 A	3 A
Rated voltage V_{out} DC	24 V	24 V	24 V	24 V	24 V	24 V
Rated current value $I_{out rated}$	10 A	20 A	20 A	20 A	40 A	40 A
Safety						
Short-circuit protection	Battery fuse 15 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 25 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 25 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 25 A/32 V (FKS blade-type fuse + holder); overcurrent switch-off at 60 A > 30 ms/min and 24 A > 5 s/min	Battery fuse 2x 25 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 2x 25 A/32 V (solid-state circuitry blade-type fuse + support)
Design of the overload protection	Valve control	Valve control	Valve control	Valve control	Valve control	Valve control
Status display	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication	LED green: Battery OK; LED flashing green: Error or warning; OFF: No communication

Ordering data	Article No.
SITOP UPS 1100 battery module 1.2 Ah With maintenance-free, sealed lead-acid rechargeable batteries for DC UPS module SITOP UPS1600, 10 A	6EP4131-0GB00-0AY0
SITOP UPS 1100 battery module 3.2 Ah With maintenance-free, sealed lead-acid rechargeable batteries for DC UPS module SITOP UPS1600, 10 A and 20 A	6EP4133-0GB00-0AY0
SITOP UPS 1100 battery module 5 Ah, LiFePo With maintenance-free, sealed rechargeable lithium iron phosphate batteries for DC UPS module SITOP UPS1600, 10 A and 20 A	6EP4133-0JB00-0AY0
SITOP UPS 1100 battery module 7 Ah With maintenance-free, sealed rechargeable lead-acid batteries for DC UPS module SITOP UPS1600, 10 A, 20 A and 40 A	6EP4134-0GB00-0AY0
SITOP UPS 1100 battery module 12 Ah with maintenance-free, sealed rechargeable lead-acid batteries for DC UPS module SITOP UPS1600, 20 A and 40 A	6EP4135-0GB00-0AY0
SITOP UPS 1100 battery module 2.5 Ah, high temperature With maintenance-free, sealed rechargeable pure lead batteries for DC UPS module SITOP UPS1600, 10 A and 20 A	6EP4132-0GB00-0AY0

SITOP DC UPS uninterruptible power supplies

DC UPS with battery modules

Overview



By combining a DC UPS module with at least one 24 V battery module and a SITOP power supply unit, longer power failures can be bridged without any interruption. Even if a greater buffering current is required, the DC UPS with maintenance-free lead battery provides optimum safety. It spans power failures up to several hours long and delivers up to 40 A.

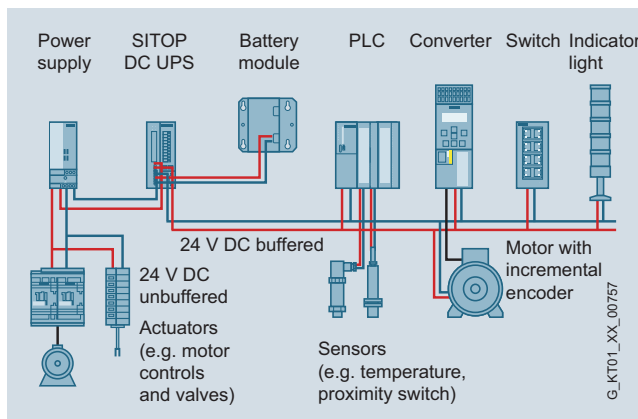
Benefits

- 24 V buffering for a few hours for the purpose of continuing processes
- Maintenance-free battery modules from 1.2 to 12 Ah
- High reliability and availability due to monitoring of the operational readiness, battery feeder, aging and charging status
- Long operating life of loads and batteries due to integrated battery management
- Settings by means of DIP switches: Battery connection threshold, end-of-charge voltage, charging current, bridging time
- SW tool, free of charge, for easy configuring and integrating in PC-based systems

Application

These battery modules that can be connected in parallel bridge power failures for a few hours. This enables processes or parts of them to be continued, measured values to be recorded without interruption and communication to be maintained. High-performance industrial PCs that have to be shut down also have somewhat higher energy demands. Especially if a large panel continues to be operated during the shutdown. The DC UPS is used, for example, in machine tool production, in the textile industry, in all types of production lines, bottling plants or also for the obstacle lights of wind power plants.

The serial or USB interface and a free software tool enable easy communication with a PC.



Configuration with SITOP DC UPS and battery module: 24 V buffering to maintain communication, signaling and sensor measured values. To relieve the load on the UPS, the actuators are supplied directly from the power supply unit.

Design

- DC UPS modules 24 V/6 A, 15 A, 40 A
- Digital inputs/outputs, optionally with serial or USB interface



- Battery modules 1.2 Ah, 3.2 Ah, 7 Ah, 12 Ah with lead rechargeable batteries of corrosion-resistant lead-calcium high-performance grid plates and glass fiber
- Battery module 2.5 Ah with "high-temperature battery" of pure lead



Function

SITOP DC UPS software tool

Via the USB interface, all relevant messages about the status of the uninterruptible DC power supply can be transmitted to a PC (e.g. SIMATIC IPC). The DC UPS can also be configured via the USB interface.

The SITOP DC UPS software provides the user with a free tool that is extremely easy to use for the purpose of monitoring and configuring the DC UPS. Signals sent from the uninterruptible DC power supply can be processed on the PC. In monitoring mode, the statuses of the uninterruptible DC power supply are visualized on the PC.

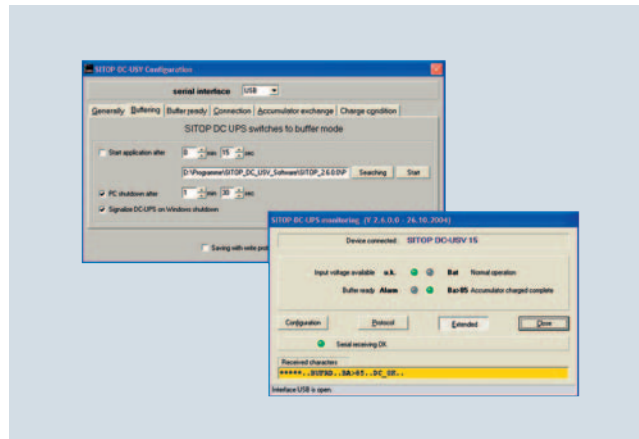
Safe shutdown in the event of a power failure and automatic PC restart are supported. It is also possible to freely define responses to the different operating states of the uninterruptible DC power supply, so that extremely flexible integration into a wide variety of applications is possible.

Overview of configuration possibilities:

- Times for shutting down the PC
- UPS switch-off
- Further processing of all signals, e.g. linking to proprietary software or WinCC flexible
- Monitoring and display of UPS operating status
- OPC server for linking signals to proprietary applications
- Automatic restarting of IPCs when power is restored during shutdown

The software runs under the operating systems Windows 2000, Windows XP, Windows Vista and Windows 7. Free download from:

<http://support.automation.siemens.com/WW/view/en/48946053>



Monitoring and configuration window of software V3 for SITOP DC UPS

Technical specifications

The table shows the maximum buffering times for the battery modules for different load currents.

The SITOP Selection Tool offers detailed selection guidance according to criteria such as the required backup time, load current, peak current and battery connection threshold:
<http://www.siemens.com/sitop-selection-tool>

Load current	Battery module 1.2 Ah (6EP1935-6MC01)	Battery module 3.2 Ah (6EP1935-6MD11)	Battery module 7 Ah (6EP1935-6ME21)	Battery module 12 Ah (6EP1935-6MF01)	Battery module 2.5 Ah (6EP1935-6MD31)
1 A	34.5 min	2.6 h	5.4 h	9 h	2 h
2 A	15 min	1 h	2.6 h	4.6 h	1 h
3 A	9 min	39.3 min	1.6 h	2.9 h	37.5 min
4 A	6.5 min	27.1 min	1.2 h	2.2 h	27 min
6 A	3.5 min	17.5 min	41 min	1.2 h	17.6 min
8 A	2 min	12.1 min	28.6 min	53.3 min	12.5 min
10 A	1 min	9 min	21.8 min	43.5 min	8.8 min
12 A	-	7 min	17.3 min	33.3 min	6.8 min
14 A	-	5 min	15.1 min	27.5 min	5.1 min
16 A	-	4 min	12.5 min	23.8 min	4.3 min
20 A	-	1 min	9.1 min	20.1 min	-
25 A	-	-	-	12.6 min	-
30 A	-	-	-	9.1 min	-
35 A	-	-	-	17.1 min. (2 x 12 Ah)	-
40 A	-	-	-	13.5 min. (2 x 12 Ah)	-

Important information for selecting the battery capacity:

Determination of the mains buffering times is based on the discharge period of new or non-aged, completely charged battery modules at a battery temperature not below +25 °C to the shut-down of the DC UPS.

Battery aging reduces the still available battery capacity up until the end of the service life to typically around 50% of the original capacity value when new (1.2 Ah/3.2 Ah/7 Ah, etc.) and the internal resistance increases. When the message "Battery charge > 85%" appears, only around 50% x 85% = approx. 43% of the originally available capacity can be assumed at the end of the battery service life.

At battery temperatures below +25 °C, the available capacity drops approximately by another 30% at +5 °C battery temperature, to approximately 70% of the approximately remaining 43%. There is then only around 30% of the original capacity available.

A significantly larger battery capacity must therefore be selected when configuring the plant: A drop to approx. 50% is compensated for by selecting 1 / approx. 0.5 = approx. double the battery capacity (required as per the table for the relevant load current and the relevant buffering time). Available capacity of approx. 43% is compensated for by selecting 1 / approx. 0.43 = approx. 2.33 times the battery capacity. Available capacity of approx. 30% is compensated for by selecting 1 / approx. 0.3 = approx. 3.33 times the battery capacity.

Recommendation:

Instead of installing double the battery capacity, regular battery replacement halfway through the expected service life (reduction of capacity to approx. 50%) can be more advisable for the following reasons: Capacity does not drop below 100% until the halfway point of the expected battery life (or slightly beyond). With regular replacement after this point, only the single battery capacity (instead of double capacity) must be installed due to aging (-> neutral in price with regard to battery module costs, but only requires half the space).

Replacing the battery after half its service life dispenses above all with the large scatter range of the residual capacity at the end of the service life, which is not accurately defined by battery manufacturers (after the full time, many batteries are above, but many are also below the average 50% residual capacity, that is to say, even if double the capacity is installed, the influence of aging at the end of service life is not reliably compensated for, rather only typically) -> When replacing after half the expected service life, the configured buffering time is maintained with considerably greater reliability.

In the case of batteries stored in cool conditions (not above +25 °C) and for not longer than approximately 4 months, the following service life can be assumed, strongly dependent on battery temperature:

Battery temperature	Drop to approx. 50% of residual capacity	Recommendation: Replace (at 100% of residual capacity) all	Alternative recommendation
+20 °C	4 years	2 years	
+30 °C	2 years	1 year	
+40 °C	1 year	0.5 years	Install double capacity and replace 1 x per year

In normal cases (installation in the coolest location in the control cabinet at approx. +30 °C), the battery should be replaced with single installed battery capacity in accordance with the selection table after 1 year of operation!

- On the DC UPS module 40 A, at least 2 battery modules of 7 Ah or higher must be connected in parallel for output currents > 30 A. When connecting battery modules in parallel, you must ensure identical capacity and aging.
- After a power failure, the battery module is disconnected from the loads at the end of the selected buffering time either automatically or electronically by opening the On/Off control circuit, and as soon as the 24 V input voltage is available again, it is quickly re-charged with the charging current of the relevant DC UPS module (with I-U charge characteristic: First constant current I for fast charging, and changeover to constant voltage U to maintain the charge when the battery is almost full).

Technical specifications (continued)

Article number	6EP1931-2DC21 6EP1931-2DC31 6EP1931-2DC42	6EP1931-2EC21 6EP1931-2EC31 6EP1931-2EC42	6EP1931-2FC21 6EP1931-2FC42
Product brand name	SITOP DC UPS module	SITOP DC UPS module	SITOP DC UPS module
Type of current supply	DC UPS 24 V/6 A	DC UPS 24 V/15 A	DC UPS 24 V/40 A
Mechanics			
Type of electrical connection	screw-type terminals	screw-type terminals	screw-type terminals
• at input	24 V DC: 2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
• at output	24 V DC: 4 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 4 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
• for battery module	24 V DC: 2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 2 screw terminals for 1 ... 4 mm ² /17 ... 11 AWG	24 V DC: 2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
• for control circuit and status message	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG
Width of the enclosure	50 mm	50 mm	102 mm
Height of the enclosure	125 mm	125 mm	125 mm
Depth of the enclosure	125 mm	125 mm	125 mm
Required spacing			
• top	50 mm	50 mm	50 mm
• bottom	50 mm	50 mm	50 mm
• left	0 mm	0 mm	0 mm
• right	0 mm	0 mm	0 mm
Net weight	0.4 kg	0.4 kg	1.1 kg
Product feature of the enclosure housing for side-by-side mounting	Yes	Yes	Yes
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Battery module	Battery module	Battery module
MTBF at 40 °C	1 085 776 h	791 139 h	522 739 h
Equipment marking acc. to DIN EN 81346-2	T	T	T
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

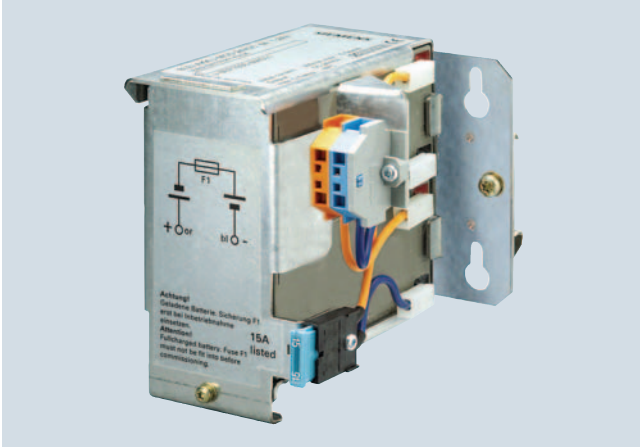
Article No.

DC UPS module 6 A	6EP1931-2DC21
• with serial interface	6EP1931-2DC31
• with USB interface	6EP1931-2DC42
DC UPS module 15 A	6EP1931-2EC21
• with serial interface	6EP1931-2EC31
• with USB interface	6EP1931-2EC42
DC UPS module 40 A	6EP1931-2FC21
• with USB interface	6EP1931-2FC42

SITOP DC UPS uninterruptible power supplies

DC UPS battery modules

Overview



Maintenance-free battery modules with 1.2 Ah up to 12 Ah (lead-gel accumulator) for ambient temperatures from 0 to +40 °C as well as high-temperature battery module with 2.5 Ah (pure-lead accumulator) for ambient temperatures of -40 °C to +60 °C. The battery modules are completely prewired with battery retainer and terminals. For longer buffer times, the battery modules can be connected in parallel. Mounting onto standard mounting rail or directly to the wall.

Technical specifications

Article number	6EP1935-6MC01	6EP1935-6MD31	6EP1935-6MD11	6EP1935-6ME21	6EP1935-6MF01
Product	SITOP Battery module				
Product type	Battery module 1.2 Ah	Battery module 2.5 Ah	Battery module 3.2 Ah	Battery module 7 Ah	Battery module 12 Ah
Charging current charging voltage					
End-of-charge voltage at DC					
• at -10 °C recommended	-	29 V	-	-	-
• at 0 °C recommended	-	28.6 V	-	-	-
• at 10 °C recommended	27.8 V	28.3 V	27.8 V	27.8 V	27.8 V
• at 20 °C recommended	27.3 V	27.9 V	27.3 V	27.3 V	27.3 V
• at 30 °C recommended	26.8 V	27.5 V	26.8 V	26.8 V	26.8 V
• at 40 °C recommended	26.6 V	27.2 V	26.6 V	26.6 V	26.6 V
• at 50 °C recommended	26.3 V	26.8 V	26.3 V	26.3 V	26.3 V
• at 60 °C recommended	-	26.4 V	-	-	-
Permissible charging current, max.	0.3 A	5 A	0.8 A	1.75 A	3 A
Rated voltage V_{out} DC	24 V	24 V	24 V	24 V	24 V
Safety					
Short-circuit protection	Battery fuse 7.5 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 15 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 15 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 20 A/32 V (solid-state circuitry blade-type fuse + support)	Battery fuse 20 A/32 V (solid-state circuitry blade-type fuse + support)
Design of the overload protection	Valve control	Valve control	Valve control	Valve control	Valve control
Safety					
Protection class	Class III	Class III	Class III	Class III	Class III
CE mark	Yes	Yes	Yes	Yes	Yes
UL/cUL (CSA) approval	cURus-Recognized (UL 1778, CSA C22.2 No. 107.1), File E219627	cURus-Recognized (UL 1778, CSA C22.2 No. 107.1), File E219627	cURus-Recognized (UL 1778, CSA C22.2 No. 107.1), File E219627	cURus-Recognized (UL 1778, CSA C22.2 No. 107.1), File E219627	cURus-Recognized (UL 1778, CSA C22.2 No. 107.1), File E219627
Marine approval	GL, ABS	GL, ABS	GL, ABS	GL, ABS	GL, ABS
Degree of protection (EN 60529)	IP00	IP00	IP00	IP00	IP00

Technical specifications (continued)

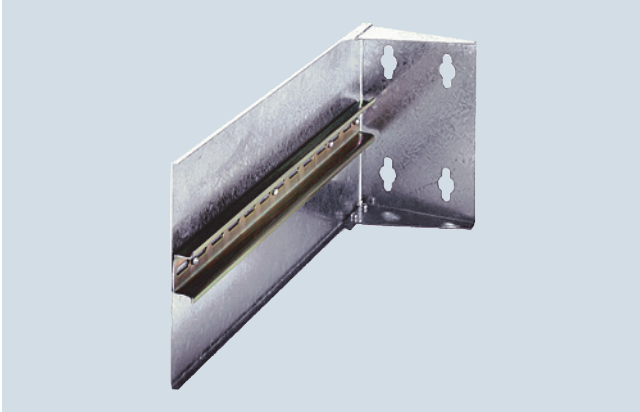
Article number	6EP1935-6MC01	6EP1935-6MD31	6EP1935-6MD11	6EP1935-6ME21	6EP1935-6MF01
Product	SITOP Battery module	SITOP Battery module	SITOP Battery module	SITOP Battery module	SITOP Battery module
Product type	Battery module 1.2 Ah	Battery module 2.5 Ah	Battery module 3.2 Ah	Battery module 7 Ah	Battery module 12 Ah
Mechanics					
Connection technology	spring-loaded terminals	spring-loaded terminals	spring-loaded terminals	spring-loaded terminals	spring-loaded terminals
Connection for power supply unit	1 screw terminal each for 0.08 ... 2.5 mm ² for + BATT and - BATT	1 screw terminal each for 0.08 ... 2.5 mm ² for + BATT and - BATT	1 screw terminal each for 0.08 ... 2.5 mm ² for + BATT and - BATT	1 screw terminal each for 0.08 ... 4 mm ² for + BATT and - BATT	1 screw terminal each for 0.08 ... 4 mm ² for + BATT and - BATT
Product component belonging to	Accessories pack with solid-state circuitry fuse 7.5 A	Accessories pack with solid-state circuitry fuse 15 A	Accessories pack with solid-state circuitry fuse 15 A	Accessories pack with solid-state circuitry fuse 20 A and 30 A	Accessories pack with solid-state circuitry fuse 20 A and 30 A
Width of the enclosure	96 mm	265 mm	190 mm	186 mm	253 mm
Height of the enclosure	106 mm	151 mm	151 mm	168 mm	168 mm
Depth of the enclosure	108 mm	91 mm	82 mm	121 mm	121 mm
Installation width	116 mm	285 mm	210 mm	206 mm	273 mm
Installation height	126 mm	171 mm	171 mm	188 mm	188 mm
Weight, approx.	1.8 kg	3.8 kg	3.2 kg	6 kg	9 kg
Installation	snaps onto DIN rail EN 60715 35x7.5/15 or keyhole mounting for hooking in to M4 screws	snaps onto DIN rail EN 60715 35x15 or keyhole mounting for hooking in to M4 screws	snaps onto DIN rail EN 60715 35x7.5/15 or keyhole mounting for hooking in to M4 screws	can be screwed onto flat surface (keyhole mounting for hooking in to M4 screws)	can be screwed onto flat surface (keyhole mounting for hooking in to M4 screws)
Number of cells	12	12	12	12	12
Equipment marking acc. to DIN EN 81346-2	G	G	G	G	G
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Ordering data

Article No.

Battery module 1.2 Ah for DC UPS module 6 A	6EP1935-6MC01
Battery module 2.5 Ah for DC UPS module 6 A and 15 A	6EP1935-6MD31
Battery module 3.2 Ah for DC UPS module 6 A and 15 A	6EP1935-6MD11
Battery module 7 Ah for DC UPS modules 6 A, 15 A and 40 A	6EP1935-6ME21
Battery module 12 Ah for DC UPS modules 6 A, 15 A and 40 A	6EP1935-6MF01

Overview

**Mounting bracket**

The combination of a SITOP power supply and a 90° mounting bracket results in a minimum surface area requirement on the rear panel of the control cabinet (the width of the power supply becomes the depth, and the depth becomes the width). The mounting bracket is suitable for control cabinets with a depth of 320 mm or more.

Mounting adapter for standard mounting rail

The 1-phase 24 V/2 A (6ES7305-1BA80-0AA0) and 24 V/5 A (6ES7307-1EA80-0AA0) power supplies are special mechanical versions for SIMATIC S7-300 and can be mounted on S7 rails.

A mounting adapter (6ES7390-6BA00-0AA0) for mounting on the standard mounting rail EN 60715 35x15 is separately available as an accessory.

The 24 V/2 A (6ES7307-1BA01-0AA0), 24 V/5 A (6ES7307-1EA01-0AA0) and 10 A (6ES7307-1KA02-0AA0) power supplies are variants for SIMATIC S7-300 and can be mounted on S7 rails.

A mounting adapter (6EP1971-1BA00) for installation on DIN rail EN 60715 35x15/7.5 is separately available as an accessory.

Connection plug for devices with degrees of protection IP65 and IP67

For the maintenance-free SITOP UPS500P DC UPS modules (6EP1933-2NC01, 6EP1933-2NC11) in IP65 degree of protection, a connector set (6EP1975-2ES00) for input and output and with a pre-assembled USB cable (2 m long) is available as an accessory.

Device labels

Blank device labeling plates (20 mm x 7 mm, pastel turquoise) with Art. No.'s 3RT1 900-1SB20 can be used for identification of the power supplies. The package unit comprises 340 labels on frames, 20 labels per frame. For usability, refer to "Accessories" in the technical data of the respective power supplies.

Technical specifications

Mounting bracket 90° for SITOP power Standard 24 V

Mounting bracket	For a depth of 320 mm
Article number	6EP1971-2BA00
Dimensions (W x H x D) in mm	100 x 150 x 320
Sheet thickness	1.5 mm
Mounting rail, attached	Standard mounting rail EN 60715 35x15
Weight, approx.	0.9 kg
Mounting	Can be screwed onto a flat surface (keyhole mounting for hooking onto M6 screws, drill hole distance 90 mm height, 50 mm side)
Accessories, included	4 M6 combi screws
Suitable, for example, for	SITOP 24 V/20 A (6EP1336-3BA00, 6EP1436-3BA00) SITOP 24 V/40 A (6EP1437-3BA00, 6EP1437-3BA00) SITOP 48 V/20 A (6EP1457-3BA00)

Ordering data

Ordering data	Article No.
SITOP modular signaling module For 6EP1XXX-3BA00 signaling contacts: Output voltage ok, operational availability ok, remote ON/OFF	6EP1961-3BA10
SITOP power mounting bracket 90 degrees, for Article No.'s: 6EP1336-3BA00, 6EP1436-3BA00, 6EP1337-3BA00, 6EP1437-3BA00, 6EP1457-3BA00	6EP1971-2BA00
SIMATIC S7-300 mounting adapter For snapping the PS 307 onto standard mounting rail 35x15/7.5 mm suitable for 6ES7307-1BA01*, -1EA01*, -1KA02* and higher	6EP1971-1BA00
Connector set For UPS500P 6EP1933-2NC01 and 6EP1933-2NC11 degree of protection IP65 Contents: input plug, output plug, USB cable connection, length 2 m	6EP1975-2ES00
SIMATIC S7-300 mounting adapter for snapping the PS307 onto 35 mm standard rails	6ES7390-6BA00-0AA0
Device labels	3RT1900-1SB20

Overview



Particularly harsh industrial environments demand products with special characteristics - products that are more rugged than standard products.

Siemens offers the perfect answer to these requirements with SIPLUS extreme. SIPLUS product variants are based on the SITOP, LOGO!Power standard power supplies and the power supplies for SIMATIC S7 and expansion modules, and feature the following characteristics:

- Extended ambient temperature range (e.g. -40 ... +70 °C) and conformal coating as protection against extreme and difficult conditions and contact with substances
- DIN EN 50155:
Conforms with standard for electronic equipment used on rolling stock (EN 50155, temperature T1, category)

Ambient conditions

Conformal coating	Coating of the printed circuit boards and the electronic components
Technical specifications	The technical data of the standard product applies except for the ambient conditions.
Relative humidity	100%, condensation/frost permitted. No commissioning in bedewed state.
Biologically active substances, compliance with EN 60721-3-3	Class 3B2 mold and fungal spores (excluding fauna). The supplied plug covers must remain in place over the unused interfaces during operation!
Chemically active substances, compliance with EN 60721-3-3	Class 3C4 incl. salt spray in accordance with EN60068-2-52 (degree of severity 3). The supplied plug covers must remain in place over the unused interfaces during operation!
Mechanically active substances, compliance with EN 60721-3-3	Class 3S4 incl. conductive sand, dust. The supplied plug covers must remain in place over the unused interfaces during operation!
Air pressure (depending on the highest positive temperature range specified)	1080 ... 795 hPa (-1000 ... +2000 m) see ambient temperature range 795 ... 658 hPa (+2000 ... +3500 m) derating 10 K 658 ... 540 hPa (+3500 ... +5000 m) derating 20 K

For further technical specifications, see the standard products, or visit www.siemens.com/siplus-extreme

Ordering data	Article No.	Ordering data	Article No.
SIPLUS LOGO!Power		SIPLUS S7 design	
SIPLUS LOGO!Power 24 V 1.3 A	6AG1331-1SH03-7AA0	<i>For industrial applications with particularly demanding ambient conditions</i>	
Input: 100 ... 240 V AC Output: 24 V DC, 1.3 A		SIPLUS S7-300 PS 305	6AG1305-1BA80-2AA0
Extended temperature range and exposure to media		Input: 24 ... 110 V DC Output: 24 V DC/2 A	
SIPLUS LOGO!Power 24 V 2.5 A	6AG1332-1SH43-7AA0	Extended temperature range and exposure to media	
Input: 100 ... 240 V AC Output: 24 V DC, 2.5 A		SIPLUS S7-300 PS 305 5 A	6AG1307-1EA01-7AA0
Extended temperature range and exposure to media		Incl. connection bracket Input: 120/230 V AC Output: 24 V DC/5 A	
SIPLUS LOGO!Power 24 V 4 A	6AG1332-1SH52-7AA0	Extended temperature range and exposure to media	
Input: 100 ... 240 V AC Output: 24 V DC, 4 A		SIPLUS S7-300 PS 305 10 A	6AG1307-1KA02-7AA0
Extended temperature range and exposure to media		Incl. connection bracket Input: 120/230 V AC Output: 24 V DC/10 A (dimensions 80 x 125 x 120)	
SIPLUS smart		<i>For rolling stock railway applications</i>	
SIPLUS PSU100S 24 V/10 A	6AG1334-2BA20-4AA0	SIPLUS S7-300 PS 305	6AG1305-1BA80-2AA0
Stabilized power supply Input: 120/230 V AC Output: 24 V DC/10 A		Input: 24 ... 110 V DC Output: 24 V DC/2 A	
Extended temperature range and Exposure to media		Conforms to EN 50155	
SIPLUS PSU300S 3-phase, 24 V DC/10 A	6AG1434-2BA10-7AA0	Extended temperature range and exposure to media	
Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/20 A		SIPLUS S7-1200 PM 1207 power supply	
Exposure to media		Input: 120/230 V AC Output: 24 V DC, 2.5 A; Derating from + 55 °C to + 70 °C 1.2 A output current	
SIPLUS PSU300S 3-phase, 24 V DC/20 A	6AG1436-2BA10-7AA0	• Ambient temperature -25 ... +70 °C	6AG1332-1SH71-7AA0
Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/20 A		• Ambient temperature 0... +60 °C	6AG1332-1SH71-4AA0
Extended Temperature range and exposure To media		Extended temperature range and exposure to media	
SIPLUS modular		SIPLUS S7-1500 PM 1507	
SIPLUS Modular 40 A		Input: 120/230 V AC	
Stabilized power supply Input: 120/230 V AC Output: 24 V DC/40 A		• Output: 24 V DC, 3 A	6AG1332-4BA00-7AA0
• Exposure to media	6AG1337-3BA00-4AA0	• Output: 24 V DC, 8 A	6AG1333-4BA00-7AA0
• Extended temperature range and exposure to media	6AG1337-3BA00-7AA0	Extended temperature range and exposure to media	
SIPLUS PS PSU200M 1-phase and 2-phase, 24 V DC/5 A		SIPLUS S7-1500 system power supply	
Stabilized power supply Input: 120 ... 230 V/230 ... 500 V AC		For supplying the backplane bus of the S7-1500	
• Output: 24 V DC/5 A	6AG1333-3BA10-7AA0	• 24 V DC input voltage, power 25 W	6AG1505-0KA00-7AB0
• Output: 24 V DC / 10 A	6AG1334-3BA10-7AA0	• 24/48/60 V DC input voltage, power 60 W	6AG1505-0RA00-7AB0
Exposure to media		• 120/230 V AC input voltage, power 60 W	6AG1507-0RA00-7AB0
SIPLUS PS PSU8200 3-phase, 24 V DC/40 A	6AG1437-3BA10-7AA0	Extended temperature range and exposure to media	
Stabilized power supply Input: 400 ... 500 V 3 AC Output: 24 V DC/20 A			
Exposure to media			

Ordering data	Article No.	Ordering data	Article No.
<i>SIPLUS DC/DC converter</i>		SIPLUS modular buffer module	
SIPLUS PS 24V/0.375A	6AG1931-2BA00-3AA0	For 6AG1961-3BA01-7AA0; buffer time 100 ms to 10 s, dependent on load current	6AG1961-3BA01-7AA0
DC/DC stabilized power supply Input: 48 ... 220 V DC Output: 24 V DC/0.375 A condensation permissible Exposure to media		SIPLUS PS signaling module modular	6AG1961-3BA10-7AA0
<i>SIPLUS add-on modules</i>		For 6AG1XXX-3BA00 -XXXX signaling contacts: Output voltage ok, operational availability ok, remote ON/OFF Extended temperature range and exposure to media	
SIPLUS PS E202U redundancy module		SIPLUS SITOP signaling module	6AG1961-3BA10-6AA0
Input/output: 24 V DC/40 A suitable for decoupling two SITOP power supplies with a maximum of 20 A output current		Hard gold-plated contacts; for 6AG1XXX-3BA00 -XXXX signaling contacts: Output voltage ok, operational availability ok, remote ON/OFF	
• Extended temperature range and exposure to media	6AG1961-3BA21-7AX0	<i>SIPLUS DC-UPS, uninterruptible power supply</i>	
• Exposure to media	6AG1961-3BA21-4AX0	SIPLUS PS DC UPS module 15 A	6AG1931-2EC21-2AA0
SIPLUS PSE200U 3 A	6AG1961-2BA31-7AA0	Uninterruptible power supply without interface Input: 24 V DC/16 A, Output: 24 V DC/15 A Extended temperature range and exposure to media	
4-channel selectivity module Input: 24 V DC Output: 24 V DC/3A per channel output current adjustable 0.5 ... 3 A Exposure to media		SIPLUS PS DC UPS module 40 A	6AG1931-2FC21-7AA0
SIPLUS PSE200U 10 A	6AG1961-2BA41-7AA0	Uninterruptible power supply without interface; Input: 24 V DC/43 A, Output: 24 V DC/40 A Extended temperature range and exposure to media	
4-channel selectivity module Input: 24 V DC Output: 24 V DC/10 A per channel output current adjustable 3 ... 10 A Exposure to media			

Power supplies for AS interface

1-phase / 1-2-phase / DC, AS-i 30 V (with data decoupling)

Overview



AS-Interface power supply unit for 3 A

AS-Interface power supply units feed 30 V DC into the AS-Interface cable and supply the AS-Interface components. They contain performance-optimized data decoupling for separating communication signals and supply voltage. As the result, AS-Interface is able to convey both data and power along a single line. The power packs are overload and short-circuit proof.

Dimensions

AS-Interface power supply units have compact dimensions in widths of 50 / 70 / 120 mm. No clearance to other devices is required when mounting.

Features

- Higher rating: The power supply units deliver currents of 2.6 to 8 A.
- Integrated data decoupling: As the result, AS-Interface is able to convey both data and power along a single line.
- Integrated ground-fault detection: The power supply units perform the reliable detection and signaling of ground faults according to IEC 60204-1. The AS-Interface voltage can be disconnected automatically in the event of a ground fault.
- Integrated overload detection: An output overload is identified and signaled over a diagnostics LED.
- Diagnostics memory: Any ground faults or overloads on the output side are stored in a diagnostics memory until the device is RESET.
- Remote RESET and remote signaling: A ground fault can be signaled and evaluated by relay contacts over a central control and/or indicator light.
- Diagnostics LEDs: Three different LEDs indicate the status of the AS-Interface power supply locally at the power supply unit.
- Ultra-wide input range / 2-phase connection: The ultra-wide input range of 120 to 500 V of the 8 A version means that the supply units can be used in virtually any network worldwide. In addition, this version dispenses with the need for an N conductor as the device can be connected directly between 2 phases of a network.
- Operation with 24 V DC: The 3 A power supply unit is also available as a version with a 24 V DC input. This power supply unit is suitable for use in battery-operated plants or plants with uninterrupted power supply (UPS).
- Removable terminal blocks in spring-type connection: The power supply units are equipped with three removable terminal blocks for simple device replacement: for the input side, for the output side and for Signal/RESET connections.

Benefits

- Complete solution for supplying AS-Interface networks while making full use of the maximum possible cable length per AS-i segment
- Only AS-i masters and AS-i slaves need to be connected to the AS-Interface cable to operate AS-Interface
- Compact, room-saving footprint
- Reliable power supply even for large numbers of AS-Interface modules with high power requirements
- Increased safety and savings on additional components owing to the integrated ground fault and overload detection
- Fast fault detection and reduced downtimes thanks to diagnostics memory, remote signaling and remote RESET
- Reduced downtimes as the result of removable terminal blocks which enable the fast exchanging of devices
- Ultra-wide input range of the 8 A version permits single-phase and two-phase operation and removes the need for an N conductor
- Can be used world-wide thanks to, for example, UL/CSA approval (UL 508)
- With the 2.6 A version, the output power is restricted to max. 100 W for use in Class 2 circuits in accordance with NEC (National Electrical Code)

Ordering data

Article No.

AS-Interface power supply units, IP20

- AS-i single output 30 V DC
- With integrated ground-fault detection
- With spring-type terminals, removable terminals,
- 2.6 A version with output power restricted to max. 100 W (for Class 2 circuits in accordance with NEC)

Dimensions:

Width:
50 mm (2.6 A / 3 A),
70 mm (5 A),
120 mm (8 A);
Height: 125 mm;
Depth: 125 mm

• Output current: 2.6 A / max. 100 W Input voltage: 120 / 230 V AC (selectable)	3RX9501-2BA00
• Output current: 3 A Input voltage: 120 / 230 V AC (selectable)	3RX9501-0BA00
• Output current: 3 A Input voltage: 24 V DC	3RX9501-1BA00
• Output current: 5 A Input voltage: 120 / 230 V AC (selectable)	3RX9502-0BA00
• Output current: 8 A Input voltage: 120 / 230 ... 500 V AC (selectable)	3RX9503-0BA00

More information

More information on AS-Interface, see Catalog IC 10, Chapter 2 "Industrial Communication".

Power supplies for AS interface

1-phase, 30 V DC (without data decoupling)

Overview



PSN130S 30 V power supply units for 3 A, 4 A and 8 A

The PSN130S 30 V power supplies feed 30 V DC into the AS-Interface cable and supply the AS-Interface components, but do not include data decoupling. Additional data decoupling units are needed to separate communication signals and supply voltage, see "S22.5 Data Decoupling Modules" or "DCM 1271 Data Decoupling Module", see Accessories, [page 14/4](#)

The power supplies are overload and short-circuit proof.

Dimensions

The 30 V power supply units have compact dimensions in widths of 50 and 70 mm. No distances to other devices must be observed during the installation.

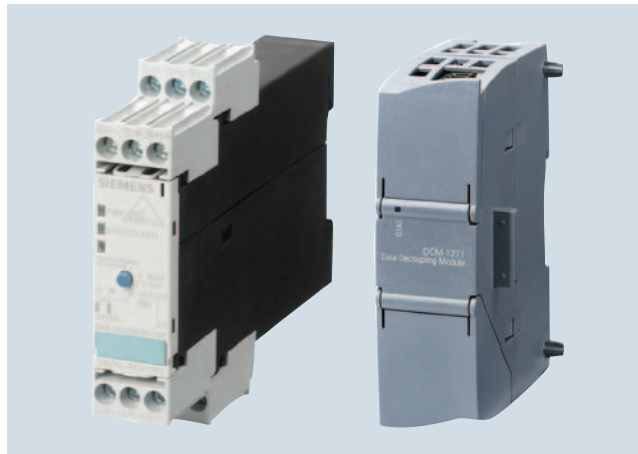
Features

- Primary-clocked power supplies for connecting to a single-phase AC power supply system
- Power for currents of 3 A, 4 A and 8 A
- The output voltage is floating, and resistant to short-circuits and no-load operation. In the event of an overload, the output voltage will be reduced or switched off. After a short-circuit or overload the devices will start up again automatically.
- In the event of a device fault, the output voltage will be limited to max. 37 V.
- Modular installation devices in degree of protection IP20 and safety class I
- Diagnostics: With an output voltage > 26.5 V DC, the green LED (30V O.K.) is lit and the signaling contact 13-14 is closed.

Benefits

- Low-cost alternative solution for supplying AS-Interface networks while making full use of the maximum possible cable length per AS-i segment
- Cost advantage particularly for multiple networks
- Compact, space-saving dimensions
- Reliable power supply even for large numbers of AS-Interface modules with high power requirements
- Can be used worldwide thanks to, for example, UL/CSA approval (UL 508)

Application



Data decoupling modules S22.5 and DCM 1271

A data decoupling module is also required in order to use a PSN130S 30 V power supply unit for AS-Interface.

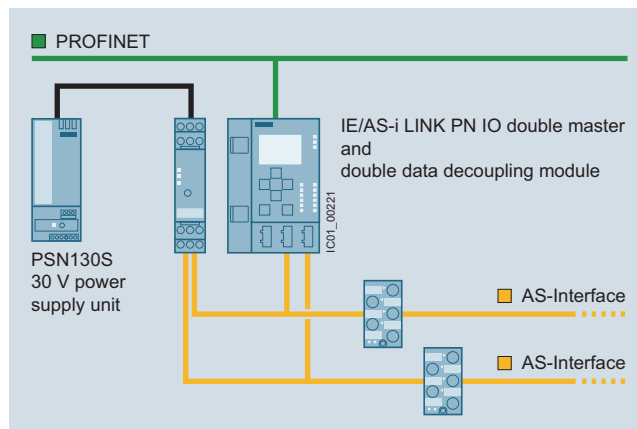
With the aid of the data decoupling module, the AS-Interface network can be supplied with 30 V DC from a standard power supply unit and the transmission of data and power can be realized along one cable.

Alternatively, it is also possible to use a standard 24 V DC power supply unit (AS-i Power24V). However, in this case please note that all components involved must be designed for the reduced voltage and that the maximum length of an AS-i Power24V network is limited to 50 m.

The power supply units must comply with the PELV (Protective Extra Low Voltage) or SELV (Safety Extra Low Voltage) standards, have a residual ripple of < 250 mVpp and in the event of a fault, must limit the output voltage to a maximum of 40 V.

The combination of data decoupling modules and standard power supply units is therefore a cost-efficient alternative to the service-proven AS-Interface power supply units.

The quality of the data signals and the reliable operation of the AS-i network are not negatively affected as the result.

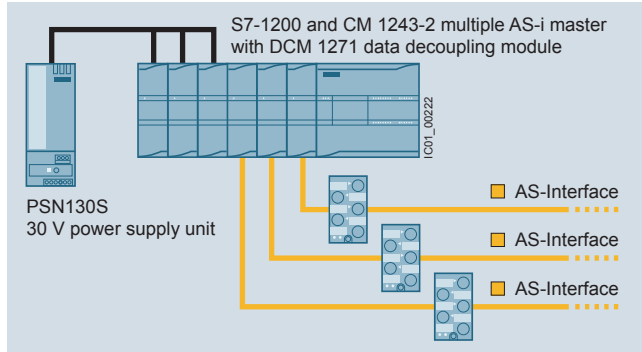
Configuration examples of AS-Interface networks with a 30 V power supply unit

Configuration of AS-Interface multiple networks, each with one PSN130S 30 V power supply unit (examples with schematic representation): Double network based on S22.5 double data decoupling module and double master IE/AS-i LINK PN IO

Power supplies for AS interface

1-phase, 30 V DC (without data decoupling)

Application (continued)



Configuration of AS-Interface multiple networks, each with one PSN130S 30 V power supply unit (examples with schematic representation): Triple network based on SIMATIC S7-1200 with DCM 1271 data decoupling modules and CM 1243-2 communication processors

Technical specifications

Product	PSN130S 30 V DC power supply unit			
	Version	3 A	4 A	8 A
Input data				
• Input voltage, rated value U_e	V AC	120 / 230 V, single-phase, automatic selection		
• Input voltage range	V AC	85 ... 132 / 174 ... 264		
• Mains frequency	Hz	50 / 60		
• Power consumption at full load, typ.	W	103	139	270
Output data				
• Output voltage, rated value U_a	V DC	30		
• Residual ripple	mV _{SS}	< 150		
• Output current, rated value at -20 ... +60 °C	A	3	4	8
• Max. output current at +60 ... +70 °C	A	3	3	4
Degree of efficiency in rated conditions				
• Degree of efficiency	%	87	88	90
• Power loss, typ.	W	12	17	25
Protection and monitoring				
• Output overvoltage protection	V	< 37		
• Current limit, typ.	A	4	5,5	11
Safety				
• Electrical separation primary / secondary		Output voltage PELV / SELV according to IEC 60950 and EN 50178		
• Protection class		I		
• Degree of protection		IP20		
Approvals				
• UL		UL 508 / CSA 22.2		
• Pollution degree		IEC 60950		
• Overvoltage category and electrical separation		EN 50178 and IEC 61558		
EMC				
• Emitted interference (class B)		IEC 61000-6-3		
• Line harmonics limit		IEC 61000-3-2		
• Interference immunity		IEC 61000-6-2		
Operating data				
Ambient temperature				
• Operation	°C	-20 ... +70		
• Transport / storage	°C	-40 ... +85		
Pollution degree				
Humidity class				
Climate class according to DIN 50010, relative air humidity max. 100 %, without condensation				
Dimensions and weight				
• Width	mm	50	50	70
• Height x depth	mm	125 x 126.5		
• Weight	kg	0.4	0.4	

Ordering data

PSN130S 30 V DC power supply units (without AS-i data decoupling)

Output voltage 30 V DC, with screw terminals, Dimensions: Width: 50 mm (3 A / 4 A), 70 mm (8 A); Height: 125 mm; Depth: 126.5 mm

- Output current: 3 A
Input voltage: 120 / 230 V AC (automatic selection)
- Output current: 4 A
Input voltage: 120 / 230 V AC (automatic selection)
- Output current: 8 A
Input voltage: 120 / 230 V AC (automatic selection)

Article No.

3RX9511-0AA00

3RX9512-0AA00

3RX9513-0AA00

Accessories

Data decoupling modules in enclosure, 22.5 mm

S22.5 data decoupling modules

With screw terminals, removable terminals, Dimensions: Width: 22.5 mm; Height: 101 mm; Depth: 115 mm

- Single data decoupling module, 1 x 4 A
- Double data decoupling module, 2 x 4 A

3RK1901-1DE12-1AA0

3RK1901-1DE22-1AA0

With spring-type terminals, removable terminals, Dimensions: Width: 22.5 mm; Height: 105 mm; Depth: 115 mm

- Single data decoupling module, 1 x 4 A
- Double data decoupling module, 2 x 4 A

3RK1901-1DG12-1AA0

3RK1901-1DG22-1AA0

Data decoupling modules in enclosure for S7-1200

DCM 1271 data decoupling module

With screw terminals, removable terminals (included in the scope of supply), Dimensions: Width: 30 mm; Height: 100 mm; Depth: 75 mm

3RK7271-1AA30-0AA0

Screw terminals (replacement) for AS-i DCM 1271 data decoupling module

- 5-pole
- 3-pole for connecting the power supply unit

3RK1901-3MA00

3RK1901-3MB00

More information

For operating instructions and other technical information see <http://support.automation.siemens.com/WW/view/en/64364000>.

More information on AS-Interface, see Catalog IC 10, Chapter 2 "Industrial Communication".

Why choose the SCALANCE XB family of unmanaged switches?

Designed for simple and cost effective entry into the Industrial Ethernet switch market, the Scalance XB family allows engineers to increase the number of end devices or network segments without the need for configuration.

- Cost-effective solutions starting at \$95
- FastEthernet and Gigabit models for maximum performance
- Seamless integration with SIMATIC design
- Compact design
- Plug-and-Play networking; no configuration required
- Distances up to 26km using Fiber
- DIN and wall mountable

Reliability

Experience the rugged durability and extended reliability designed into all Siemens Industrial Ethernet products.

- Mean Time Between Failure (MTBF) over 100 years
- UL, CSA, CE and C-Tick Certified
- Large operating temperature range from -10° C to 60° C
- LED-diagnostics conveniently indicate power, link and transmission status on the faceplate

Fiber Optics

Utilize SCALANCE XB Fiber Optic data transmission to evade electromagnetic interference and reach vast distances with minimal data loss.

- Optical SC-Port available
- Length of fiber-optic transmission:
 - Max. 5 km with Industrial Ethernet FO cables Multimode
 - Max. 26 km with Industrial Ethernet FO cables Singlemode

Expand your industrial network with Siemens reliable unmanaged switching solutions

Compact Design

Pocket-sized design allows for convenient placement of your industrial switch inside a panel, especially when space is at a premium.

- Dimensions: 45mm x 100mm x 87mm
- Weight: 165g to 260g

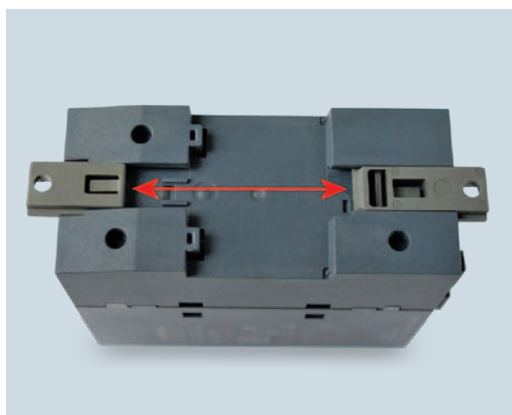
Flexibility

The SCALANCE XB line offers a comprehensive variety of unmanaged switches: full Gigabit capability and distances reaching up to 26 km with optional Fiber Optic ports. All eight switches come with the innovative dual-purpose DIN and Wall mount.

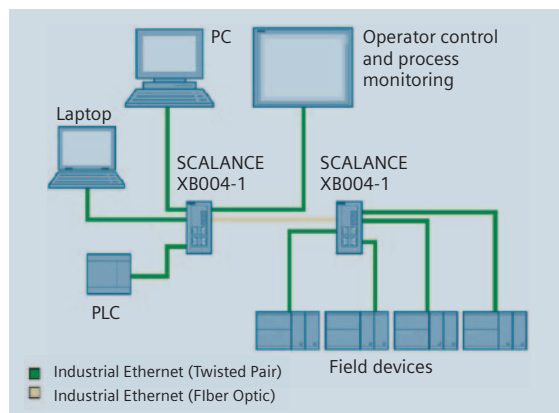
- 4 + 1, 5 and 8 Port models
- RJ45 and SC Fiber Optic connectors
- FastEthernet and Gigabit capability
- Singlemode or Multimode Fiber Optics
- Hybrid DIN/Wall mount

Simply connect your end devices to a SCALANCE XB and allow autosensing, autocrossover detection and autonegotiation features to set data transmission parameters. Large MAC learning tables allow seamless integration of Bus and Star topologies into your Industrial Ethernet network.

- Easy integration with PROFINET networks
- Data transmission rate detection via autosensing
- Autocrossover and autonegotiation
- MAC address learning tables up to 8 k



Hybrid DIN/wall mount







Mixed star topology with SCALANCE XB004-1

Fast Ethernet

SCALANCE XB-000 Industrial Ethernet switches





Unmanaged Industrial Ethernet switches for 10/100 Mbit/s, IP20 degree of protection, including operating instructions, Industrial Ethernet Network manual on CD-ROM

SCALANCE XB005	Ordering Data	Order No.
	5 x 10/100 Mbit/s electrical RJ45 ports	6GK5005-0GA10-1AB2
	8 x 10/100 Mbit/s electrical RJ45 ports	6GK5008-0GA10-1AB2
	4 x 10/100 Mbit/s electrical RJ45 ports and 1 x 100 Mbit/s optical SC port (multimode, glass), up to 5 km	6GK5004-1GL10-1AB2
	4 x 10/100 Mbit/s electrical RJ45 ports and 1 x 100 Mbit/s optical SC port (singlemode, glass), up to 26 km	6GK5004-1GM00-1AB2

Gigabit

SCALANCE XB-000 Industrial Ethernet switches

Unmanaged Industrial Ethernet switches for 10/100/1000 Mbit/s, IP20 degree of protection, including operating instructions, Industrial Ethernet Network manual on CD-ROM

SCALANCE XB005G	Ordering Data	Order No.
	5 x 10/100/1000 Mbit/s electrical RJ45 ports	6GK5005-0GA00-1AB2
SCALANCE XB008G	Ordering Data	Order No.
	8 x 10/100/1000 Mbit/s electrical RJ45 ports	6GK5008-0GA00-1AB2
SCALANCE XB004-1G	Ordering Data	Order No.
	4 x 10/100/1000 Mbit/s electrical RJ45 ports and 1 x 1000 Mbit/s optical SC port (multimode, glass), up to 750 m	6GK5004-1GL00-1AB2
SCALANCE XB004-1LDG	Ordering Data	Order No.
	4 x 10/100/1000 Mbit/s electrical RJ45 ports and 1 x 1000 Mbit/s optical SC port (singlemode, glass), up to 10 km	6GK5004-1GM00-1AB2

Technical specifications

Interfaces	
Connection of terminal equipment or network components via twisted pair	4, 5 or 8 x 10/100/1000 Mbit/s RJ45 electrical ports
Number of optical ports for fiber-optic cables	1 x 100 or 1 x 1000 Mbit/s optical SC port in multimode and singlemode versions
Connection for power supply	1 x 3 plug-in terminal block
Electrical data	
Power supply Permissible range	+24 V DC +19.2 to +28.8 V DC
Power loss at 24 V DC	1.68 W to 12.5 W
Current consumption at rated voltage	70 mA to 520 mA
Power supply input fuse design	0.6 A / 60 V
Permissible ambient conditions/EMC	
Operating temperature	-10 °C to +60 °C
Transport/storage temperature	-40 °C to +80 °C
Relative humidity in operation	< 95% (no condensation)
Interference immunity	EN 6100-6-2
Emitted interference	EN 6100-6-4
Degree of protection	IP20
Safety certifications	UL, CSA, CE and C-Tick
Construction	
Dimensions (W x H x D)	45mm x 100mm x 87mm
Weight	0.165 kg to 0.260 kg
Installation options	DIN rail, wall mounting

Accessories

FastConnect	Part Number
TP cable 2 x 2 (per meter)	
IE FC Standard Cable 2x2	6XV1840-2AH10
IE FC Flexible Cable GP 2x2	6XV1870-2B
TP cable 4 x 2 (per meter)	
IE FC TP Standard Cable GP 4 x 2 (AWG24)	6XV1878-2A
IE FL TP Flexible Cable GP 4x2 (AWG24)	6XV1878-2B
Tools	
IE FC Stripping Tool	6GK1901-1GA00
Connectors	
IE FC RJ45 180° Connector	6GK1901-1BB10-2AA0
IE FC RJ45 Plug 180° Gigabit Connector	6GK1901-1BB11-2AA0
Cables	
FO Standard Cable GP 50/125 Fiber-optic Cable pre-assembled for use with multimode switches	
80 m	6XV1873-6AN80
100 m	6XV1873-6AT10
150 m	6XV1873-6AT15
200 m	6XV1873-6AT20
300 m	6XV1873-6AT30
IE Standard Cable TP RJ45/RJ45 TP cable 4x2 with 2 RJ45 connectors	
0.5 m	6XV1870-3QE50
1 m	6XV1870-3QH10
2 m	6XV1870-3QH20
6 m	6XV1870-3QH60
10 m	6XV1870-3QN10
20 m	6XV1871-5BN20
24 V DC Power Supply	
SITOP compact 24 V/0.6 A	6EP1331-5BA00

FastConnect Cabling System

Introduction

FastConnect Cabling System

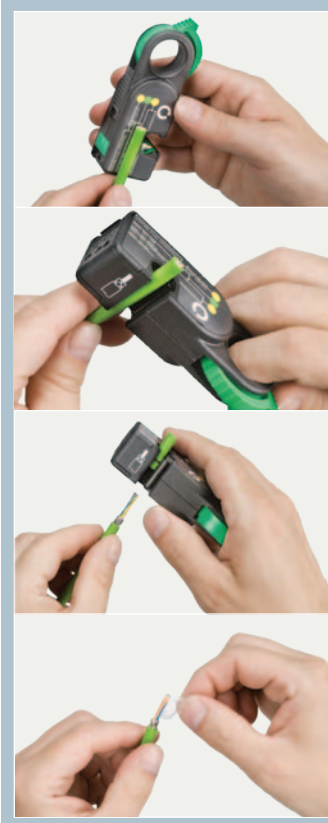
The FastConnect system provides a complete cabling solution for on-site assembly of custom length industrial Ethernet cables. The system comprises of a stripping tool, a full range of connectors, and various cable options.

Regardless of the type of connector you need, the assembly follows the same procedure.

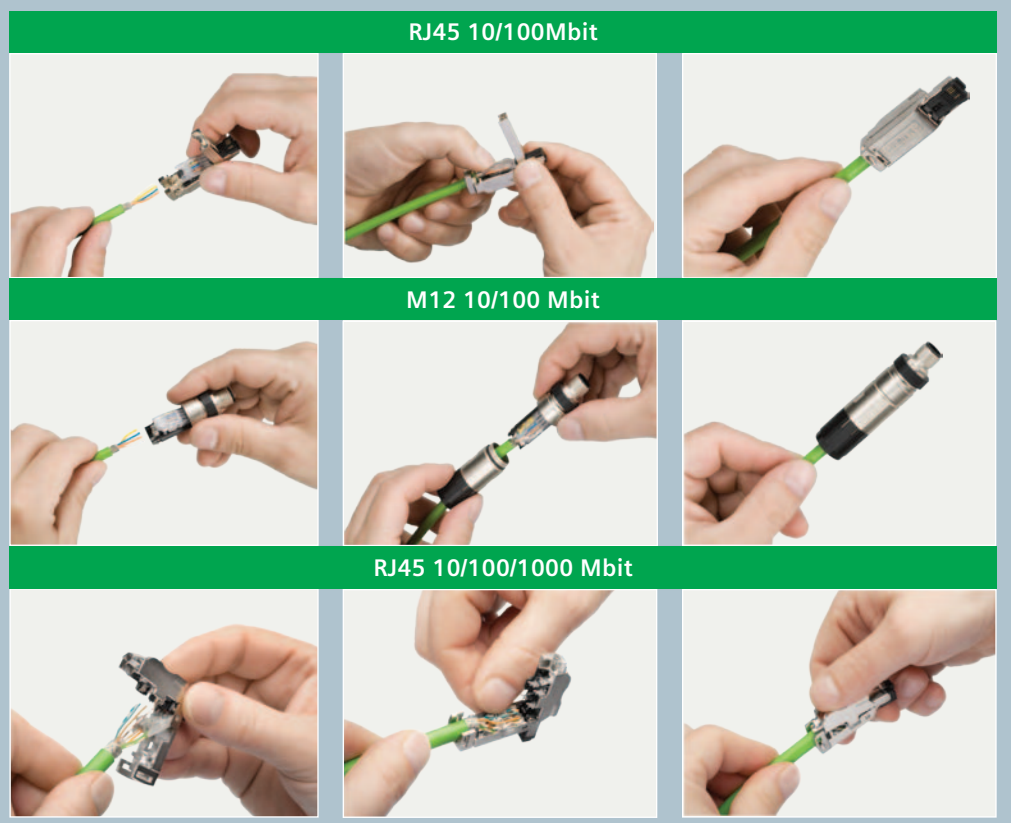
Your benefits:

- Greater flexibility for configuring the optimum cable length with the right connector on site
- Reduced stocking costs for ordering pre-assembled cables
- Easy installation using just one tool
- Easy routing of cables with pre-assembled, angled connectors
- Wiring is simplified due to color coding and the transparent contact cover

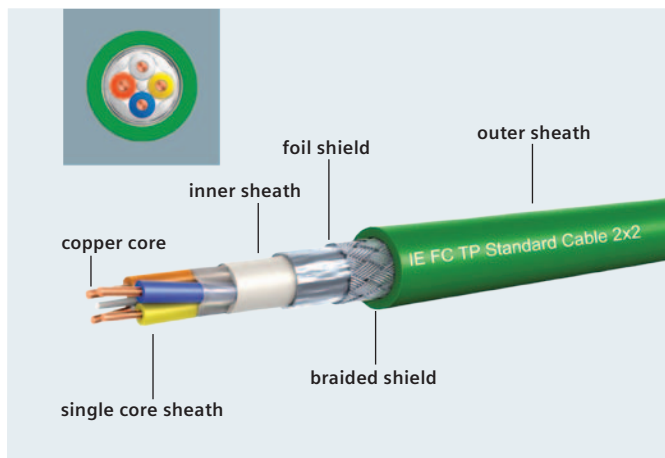
Cable Preparation



Termination











15
POWER SUPPLIES /
LOGIC MODULES




FastConnect Cabling System

Ordering information

Connectors for Industrial Ethernet FastConnect System				
	Product	Comments	Article no *)	
IE FC RJ45 Plug 2 x 2				
	10/100 FastConnect RJ45 Plug 180	RJ45 data connector; for connecting to IE FC TP cables 2x2, 180° cable outlet		
		1 pack = 1 piece	6GK1901-1BB10-2AA0	
		1 pack = 10 pieces	6GK1901-1BB10-2AB0	
	10/100 FastConnect RJ45 Plug 90	90° cable outlet;		
		1 pack = 1 piece	6GK1901-1BB20-2AA0	
		1 pack = 10 pieces	6GK1901-1BB20-2AB0	
	10/100 FastConnect RJ45 Plug 145	145° cable outlet;		
		1 pack = 1 piece	6GK1901-1BB30-0AA0	
		1 pack = 10 pieces	6GK1901-1BB30-0AB0	
IE FC RJ45 Plug 4 x 2				
	10/100/1000 FastConnect RJ45 Plug (4x2)	RJ45 data connector; for connecting to IE FC TP cables 4x2		
		1 pack = 1 piece	6GK1901-1BB12-2AA0	
		1 pack = 10 pieces	6GK1901-1BB12-2AB0	
M12 connectors				
	10/100 FastConnect M12 PRO	M12 connector with high degree of protection, 4-pin, D-coded for connection of electrical cables to SCALANCE X208PRO, ET 200 PRO PN or ET 200 eco PN	1 piece	6GK1901-0DB30-6AA0
			8 pieces	6GK1901-0DB30-6AA8
	10/100/1000 FastConnect M12 PRO	M12 connector with high degree of protection, 8-pin, X-coded for connection of electrical cables to SCALANCE W (Gigabit M12 interface),	1 piece	6GK1901-0DB30-6AA0
			8 pieces	6GK1901-0DB30-6AA8

Cables for Industrial Ethernet FastConnect System			
	Product	Comments	Article no *)
Industrial Ethernet FastConnect cables 2 x 2 at 100 Mbit/s, sold by the meter, in bulk			
	IE FC TP Standard Cable GP 2 x 2 (Type A)	Standard bus cable (4-core) with rigid cores for fast assembly	6XV1840-2AH10
	IE FC TP Flexible Cable GP 2 x 2 (Type B)	Flexible bus cable (4-core), for occasionally moved machine components	6XV1870-2B
	IE FC TP FRNC Cable GP 2 x 2 (Type B)	Flexible, halogen-free bus cable (4-core), for occasionally moved machine components	6XV1871-2F
	IE FC TP Trailing Cable GP 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement in cable carriers	6XV1870-2D
	IE FC TP Trailing Cable 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement in cable carriers	6XV1840-3AH10
	IE TP Torsion Cable 2 x 2 (Type C)	Highly flexible bus cable (4-core) for continuous movement when using with robots	6XV1870-2F
	IE FC TP Food Cable 2 x 2 (Type C)	Flexible bus cable (4-core), for food, beverages and tobacco industries	6XV1871-2L
	IE FC TP Marine Cable 2 x 2 (Type B)	Bus cable (4-core), for marine and offshore use	6XV1840-4AH10
	IE TP Ground Cable 2 x 2 (Type C)	Bus cable (4-core) for fixed routing in soil	6XV1871-2G
	IE TP Train Cable GP 2 (Type C)	Bus cable (4-core) for special applications in trains; certified for railway applications	6XV1871-2T
Industrial Ethernet FastConnect cables 4 x 2 at 1000 Mbit/s, sold by the meter, in bulk			
	IE FC TP Standard Cable GP 4 x 2	Standard bus cable (8-core), AWG22, Standard cable with rigid cores for fast assembly, for fixed installation	6XV1870-2E
	IE FC TP Flexible Cable GP 4 x 2	Bus cable (8-core, AWG24) with flexible cores, Flexible cable for quick assembly, for occasionally moving machine parts	6XV1878-2B

Pre-molded Industrial Ethernet cables				
	Product	Comments	Article no *)	
	IE TP Cord RJ45/RJ45	Patch cord, preferred length, pre-assembled with two RJ45 connectors	0.5 m	6XV1870-3QE50
			1.0 m	6XV1870-3QH10
			2.0 m	6XV1870-3QH20
			6.0 m	6XV1870-3QH60
			10 m	6XV1870-3QN10

*) For additional cabling options, please refer to U.S. Part Number NTB-1BK02-0114.

Overview



LOGO! logic module:

- 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
- 36 different functions can be connected at the press of a button or by means of PC software; up to 130 times over
- LOGO! 8: 38/43 different functions can be linked at the press of a button or using PC software; up to 200/400 times
- Functions are easily changed at the press of a button. No more time-consuming rewiring

SIPLUS LOGO!:

- The controller for use in the toughest environmental conditions
- With extended temperature range from -40/-25 °C to +70 °C
- Suitable for exposure to media (harmful gas atmosphere)
- Condensation permissible
- With the proven PLC technology of LOGO!
- Easy to handle, program, maintain, and service
- Ideal for use in automotive engineering, environmental engineering, mining, chemical plants, material handling, food industry, etc.

Accessories:

- The front panel mounting set also allows simple and reliable installation of the logic modules in front panels; IP65 protection is thus possible.
- In order to ensure dependable operation of SIPLUS devices supplied by the battery in conjunction with combustion engines, it is necessary to put in a SIPLUS upmiter upstream device between the battery and the SIPLUS LOGO!.

For more information, please go to:

<http://www.siemens.com/siplus-extreme>

General technical data of the SIPLUS LOGO!

Ambient temperature range	-40/-25 ... +70 °C
Conformal coating	Coating of the printed circuit boards and the electronic components
Technical data	The technical data of the standard product applies except for the ambient conditions.

Ambient conditions

Extended range of environmental conditions

- with reference to ambient temperature, air pressure and altitude

Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) //
Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) //
Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
0° C
- At cold restart, min.

Relative humidity

- with condensation, max. 100 %; RH incl. bedewing/frost (no commissioning in bedewed state)

Resistance

- to biologically active substances/ compliance with EN 60721-3-3

Yes; Class 3B2 mold and fungal spores (except fauna); the supplied plug covers must remain in place on the unused interfaces during operation.
--
- to chemically active substances/ compliance with EN 60721-3-3

Yes; Class 3C4 (RH < 75%) incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.
--
- to mechanically active substances, compliance with EN 60721-3-3

Yes; Class 3S4 incl. sand, dust; the supplied plug covers must remain in place on unused interfaces during operation.

LOGO! logic module

LOGO! modular basic variants

Overview



- The space-saving basic variants
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

Technical specifications

Article number	6ED1052-1CC01-0BA8	6ED1052-1MD00-0BA8	6ED1052-1HB00-0BA8	6ED1052-1FB00-0BA8
	LOGO! 24CE, 8DI(4AI)/4DO, 400 BLOCKS	LOGO!12/24RCE, 8DI(4AI)/4DO, 400 BLOCKS	LOGO! 24RCE, 8DI/4DO, 400 BLOCKS	LOGO!230RCE, 8DI/4DO, 400 BLOCKS
Display				
with display	Yes	Yes	Yes	Yes
Installation type/mounting				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
Supply voltage				
Rated value (DC)		Yes		
• 12 V DC		Yes		
• 24 V DC	Yes	Yes	Yes	
• 115 V DC				Yes
• 230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
Rated value (AC)				
• 24 V AC			Yes	
• 115 V AC				Yes
• 230 V AC				Yes
Time of day				
Time switching clocks				
• Number	190	190	190	8
• Power reserve	480 h	480 h	480 h	480 h
Digital inputs				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
Digital outputs				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
Short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal *I* permissible range for 0 to 55 °C, max.	0.3 A	10 A		
Relay outputs				
Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A

LOGO! logic module

LOGO! modular basic variants

(continued)

Article number	6ED1052-1CC01-0BA8	6ED1052-1MD00-0BA8	6ED1052-1HB00-0BA8	6ED1052-1FB00-0BA8
LOGO! 24CE, 8DI(4AI)/4DO, 400 BLOCKS	LOGO!12/24RCE, 8DI(4AI)/4DO, 400 BLOCKS	LOGO! 24RCE, 8DI/4DO, 400 BLOCKS	LOGO!230RCE, 8DI/4DO, 400 BLOCKS	
EMC				
Emission of radio interference acc. to EN 55 011				
<ul style="list-style-type: none"> Limit class B, for use in residential areas 	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes
Degree and class of protection				
Degree of protection acc. to EN 60529				
<ul style="list-style-type: none"> IP20 	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
<ul style="list-style-type: none"> Marine approval 	Yes	Yes	Yes	Yes
Ambient conditions				
Ambient temperature during operation				
<ul style="list-style-type: none"> min. max. 	0 °C 55 °C	0 °C 55 °C	0 °C 55 °C	0 °C 55 °C
Dimensions				
Width	71.5 mm	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	60 mm	60 mm	60 mm	60 mm

Ordering data

Article No.

Article No.

LOGO! 8 logic module

LOGO! 24CE

Supply voltage 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, integrated time switch
Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

6ED1052-1CC01-0BA8

LOGO! 12/24RCE

Supply voltage 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
Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

6ED1052-1MD00-0BA8

LOGO! 24RCE

Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch
Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

6ED1052-1HB00-0BA8

LOGO! 230RCE

Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integral time switch
Ethernet interface; 400 function blocks can be interlinked, modular expansion capability

6ED1052-1FB00-0BA8

LOGO! logic module

LOGO! modular basic variants

Ordering data	Article No.		Article No.
Accessories		LOGO! 8 230V Starter Kit	6ED1057-3BA02-0AA8
LOGO! 8 text display HMI	6ED1055-4MH00-0BA1	With LOGO! 230RCE	
6-line text display, can be connected to all LOGO! 8 basic and pure variants, with 2 Ethernet interfaces; including installation accessories.		LOGO! 8 TDE Starter Kit	6ED1057-3BA10-0AA8
Requires additional 12 V DC or 24 V AC/DC power supply		With LOGO! 12/24RCEO, LOGO! Power 24 V, 1.3 A, LOGO! TDE	
LOGO!Soft Comfort V8	6ED1058-0BA08-0YA1	LOGO! 8 KP300 Basic Starter Kit	6AV2132-0HA00-0AA1
For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KP300 Basic mono PN	
LOGO! 8 Starter Kits		LOGO! 8 KTP400 Basic Starter Kit	6AV2132-0KA00-0AA1
In TANOS Box, with LOGO! 8, LOGO! Soft Comfort V8, WinCC Basic V13, Ethernet cable,		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP400 Basic	
LOGO! 8 12/24 V Starter Kit	6ED1057-3BA00-0AA8	LOGO! 8 KTP700 Basic Starter Kit	6AV2132-3GB00-0AA1
With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP700 Basic	
		Front panel mounting set	
		Width 4 U	6AG1057-1AA00-0AA0
		Width 4 U, with keys	6AG1057-1AA00-0AA3
		Width 8 U	6AG1057-1AA00-0AA1
		Width 8 U, with keys	6AG1057-1AA00-0AA2

LOGO! logic module

LOGO! modular pure variants

Overview



- Basic variants optimized for costs
- Interface for the connection of expansion modules, up to 24 digital inputs, 20 digital outputs, 8 analog inputs and 8 analog outputs can be addressed
- With connection option for LOGO! TDE text display
- All basic units with integrated web server
- Enclosure width 72 mm (4 U)
- All basic units with Ethernet interface for communication with LOGO! 8, LOGO! TDE, SIMATIC Controllers, SIMATIC Panels and PCs
- Use of standard micro CF cards

Technical specifications

Article number	6ED1052-2CC01-0BA8	6ED1052-2MD00-0BA8	6ED1052-2HB00-0BA8	6ED1052-2FB00-0BA8
	LOGO! 24CEO, 8DI(4AI)/4DO, 400 BLOCKS	LOGO!12/24RCEO, 8DI(4AI)/4DO, 400 BLOCKS	LOGO! 24RCEO, 8DI/4DO, 400 BLOCKS	LOGO!230RCEO, 8DI/4DO, 400 BLOCKS
Installation type/mounting				
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
Supply voltage				
Rated value (DC)				
• 12 V DC		Yes		
• 24 V DC	Yes	Yes	Yes	
• 115 V DC				Yes
• 230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	10.8 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
Rated value (AC)				
• 24 V AC			Yes	
• 115 V AC				Yes
• 230 V AC				Yes
Time of day				
Time switching clocks				
• Number	190	190	190	8
• Power reserve	480 h	480 h	480 h	480 h
Digital inputs				
Number of digital inputs	8; Of which 4 can be used in analog mode (0 to 10 V)	8; Of which 4 can be used in analog mode (0 to 10 V)	8	8
Digital outputs				
Number of digital outputs	4; Transistor	4; Relays	4; Relays	4; Relays
Short-circuit protection	Yes; electrical (1 A)	No; external fusing necessary	No; external fusing necessary	No; external fusing necessary
Output current				
• for signal "1" permissible range for 0 to 55 °C, max.	0.3 A	10 A		
Relay outputs				
Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		10 A	10 A	10 A

(continued)

Article number	6ED1052-2CC01-0BA8 LOGO! 24CEo, 8DI(4AI)/4DO, 400 BLOCKS	6ED1052-2MD00-0BA8 LOGO!12/24RCEo, 8DI(4AI)/4DO, 400 BLOCKS	6ED1052-2HB00-0BA8 LOGO! 24RCEo, 8DI/4DO, 400 BLOCKS	6ED1052-2FB00-0BA8 LOGO!230RCEo, 8DI/4DO, 400 BLOCKS
EMC				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes; Radio interference suppression according to EN55011, Limit Value Class B	Yes	Yes	Yes
Degree and class of protection				
Degree of protection acc. to EN 60529				
• IP20	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes	Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
Dimensions				
Width	71.5 mm	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm	58 mm

Ordering data	Article No.	Article No.
LOGO! 8 logic module		
LOGO! 24CEo logic module	6ED1052-2CC01-0BA8	LOGO! 24RCEo logic module Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch; Ethernet interface; without display or keyboard; 400 function blocks can be interlinked, modular expansion capability
LOGO! 12/24RCEo logic module	6ED1052-2MD00-0BA8	LOGO! 230RCEo logic module Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integral time switch; Ethernet interface; without display or keyboard; 400 function blocks can be interlinked, modular expansion capability
		6ED1052-2HB00-0BA8
		6ED1052-2FB00-0BA8

LOGO! logic module

LOGO! modular pure variants

Ordering data	Article No.		Article No.
Accessories		LOGO! 8 12/24 V Starter Kit	6ED1057-3BA00-0AA8
LOGO! TDE text display	6ED1055-4MH00-0BA1	With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A	
6-line text display, can be connected to all LOGO! 8 basic and pure variants, with 2 Ethernet interfaces; including installation accessories.		LOGO! 8 230V Starter Kit	6ED1057-3BA02-0AA8
Requires additional 12 V DC or 24 V AC/DC power supply		With LOGO! 230RCE	
LOGO!Soft Comfort V8	6ED1058-0BA08-0YA1	LOGO! 8 TDE Starter Kit	6ED1057-3BA10-0AA8
For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD		With LOGO! 12/24RCE0, LOGO! Power 24 V, 1.3 A, LOGO! TDE	
LOGO! 8 Starter Kits		LOGO! 8 KP300 Basic Starter Kit	6AV2132-0HA00-0AA1
In TANOS Box, with LOGO! 8, LOGO! Soft Comfort V8, WinCC Basic V13, Ethernet cable,		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KP300 Basic mono PN	
		LOGO! 8 KTP400 Basic Starter Kit	6AV2132-0KA00-0AA1
		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP400 Basic	
		LOGO! 8 KTP700 Basic Starter Kit	6AV2132-3GB00-0AA1
		With LOGO! 12/24RCE, LOGO! Power 24 V 1.3 A, KTP700 Basic	

LOGO! logic module

LOGO! modular expansion modules

Overview



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

Technical specifications

Article number	6ED1055-1CB00-0BA2	6ED1055-1HB00-0BA2	6ED1055-1MB00-0BA2	6ED1055-1FB00-0BA2
	LOGO! DM8 24 EXPANSION MODULE, 2MW, 4DI/4DQ	LOGO! DM8 24R EXPANSION MODULE, 2MW, 4DI/4DQ	LOGO! DM8 12/24R, EXPANSION MODULE, 2MW, 4DI/4DQ	LOGO! DM8 230R, EXPANSION MODULE, 2MW, 4DI/4DQ
Installation type/mounting				
Mounting	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide
Supply voltage				
Rated value (DC)				
• 12 V DC			Yes	
• 24 V DC	Yes	Yes	Yes	
• 115 V DC				Yes
• 230 V DC				Yes
permissible range, lower limit (DC)	20.4 V	20.4 V	10.8 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	28.8 V	253 V
Rated value (AC)				
• 24 V AC		Yes		
• 115 V AC				Yes
• 230 V AC				Yes
Line frequency				
• permissible range, lower limit		47 Hz		47 Hz
• permissible range, upper limit		63 Hz		63 Hz
Digital inputs				
Number of digital inputs	4	4	4	4
Input voltage				
• Type of input voltage	DC	AC/DC	DC	AC/DC
• for signal "0"	< 5 V DC	< 5 V AC/DC	< 5 V DC	< 40 V AC, < 30 V DC
• for signal "1"	> 12 V DC	> 12 V AC/DC	> 8.5 V	> 79 V AC, > 79 V DC
Input current				
• for signal "0", max. (permissible quiescent current)	0.88 mA	1.1 mA	0.88 mA	0.06 mA; 0.05 mA with AC, 0.06 mA with DC
• for signal "1", typ.	2.1 mA	2.63 mA	1.5 mA	0.13 mA
Input delay (for rated value of input voltage) for standard inputs				
- at "0" to "1", max.	1.5 ms	1.5 ms	1.5 ms	40 ms
- at "1" to "0", max.	1.5 ms	15 ms	1.5 ms	75 ms

LOGO! logic module

LOGO! modular expansion modules

(continued)

Article number	6ED1055-1CB00-0BA2 LOGO! DM8 24 EXPANSION MODULE, 2MW, 4DI/4DQ	6ED1055-1HB00-0BA2 LOGO! DM8 24R EXPANSION MODULE, 2MW, 4DI/4DQ	6ED1055-1MB00-0BA2 LOGO! DM8 12/24R, EXPANSION MODULE, 2MW, 4DI/4DQ	6ED1055-1FB00-0BA2 LOGO! DM8 230R, EXPANSION MODULE, 2MW, 4DI/4DQ
Digital outputs				
Number of digital outputs	4	4; Relays	4; Relays	4; Relays
Short-circuit protection	Yes	No	No	No
Controlling a digital input		Yes	Yes	Yes
Switching capacity of the outputs				
• on lamp load, max.		1 000 W	1 000 W	1 000 W; 500 W at 115V AC
Parallel switching of two outputs				
• for uprating	No	No	No	No
Switching frequency				
• with resistive load, max.	10 Hz	2 Hz	2 Hz	2 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz	0.5 Hz
• mechanical, max.		10 Hz	10 Hz	10 Hz
Relay outputs				
Switching capacity of contacts				
- with inductive load, max.		3 A	3 A	3 A
- with resistive load, max.		5 A	5 A	5 A
EMC				
Emission of radio interference acc. to EN 55 011				
• Limit class B, for use in residential areas	Yes	Yes	Yes	Yes
Degree and class of protection				
Degree of protection acc. to EN 60529				
• IP20	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
FM approval	Yes	Yes	Yes	Yes
developed in accordance with IEC 61131	Yes	Yes	Yes	Yes
according to VDE 0631	Yes	Yes		Yes
Marine approval				
• Marine approval	Yes	Yes	Yes	Yes
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C	55 °C
Dimensions				
Width	35.5 mm	35.5 mm	35.5 mm	35.5 mm
Height	90 mm	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm	58 mm

(continued)

Article number	6ED1055-1CB10-0BA2 LOGO! DM16 24, EXP. MODULE, 4MW, 8DI/8DQ	6ED1055-1NB10-0BA2 LOGO! DM16 24R, EXP. MODULE, 4MW, 8DI/8DQ	6ED1055-1FB10-0BA2 LOGO! DM16 230R, EXP. MODULE, 4MW, 8DI/8DQ
Installation type/mounting			
Mounting	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide	on 35 mm DIN rail, 4 spacing units wide
Supply voltage			
Rated value (DC)			
• 24 V DC	Yes	Yes	
• 115 V DC			Yes
• 230 V DC			Yes
permissible range, lower limit (DC)	20.4 V	20.4 V	100 V
permissible range, upper limit (DC)	28.8 V	28.8 V	253 V
Rated value (AC)			
• 24 V AC		No	
• 115 V AC			Yes
• 230 V AC			Yes
Line frequency			
• permissible range, lower limit			47 Hz
• permissible range, upper limit			63 Hz
Digital inputs			
Number of digital inputs	8	8	8
Input voltage			
• Type of input voltage	DC	DC	AC/DC
• for signal "0"	< 5 V DC	< 5 V DC	< 40 V AC, < 30 V DC
• for signal "1"	> 12 V DC	> 12 V DC	> 79 V AC, > 79 V DC
Input current			
• for signal "0", max. (permissible quiescent current)	0.85 mA	0.85 mA	0.06 mA; 0.05 mA with AC, 0.06 mA with DC
• for signal "1", typ.	3.5 mA	2 mA	0.13 mA
Input delay (for rated value of input voltage)			
for standard inputs			
- at "0" to "1", max.	1.5 ms	1.5 ms	40 ms
- at "1" to "0", max.	1.5 ms	1.5 ms	75 ms
Digital outputs			
Number of digital outputs	8	8; Relays	8; Relays
Short-circuit protection	Yes	No	No
Controlling a digital input	Yes	Yes	Yes
Switching capacity of the outputs			
• on lamp load, max.		1 000 W	1 000 W; 500 W at 115V AC
Parallel switching of two outputs			
• for uprating	No	No	No
Switching frequency			
• with resistive load, max.	10 Hz	2 Hz	2 Hz
• with inductive load, max.	0.5 Hz	0.5 Hz	0.5 Hz
• mechanical, max.		10 Hz	10 Hz
Relay outputs			
Switching capacity of contacts			
- with inductive load, max.		3 A	3 A
- with resistive load, max.		5 A	5 A

(continued)

Article number	6ED1055-1CB10-0BA2 LOGO! DM16 24, EXP. MODULE, 4MW, 8DI/8DQ	6ED1055-1NB10-0BA2 LOGO! DM16 24R, EXP. MODULE, 4MW, 8DI/8DQ	6ED1055-1FB10-0BA2 LOGO! DM16 230R, EXP. MODULE, 4MW, 8DI/8DQ
EMC			
Emission of radio interference acc. to EN 55 011			
• Limit class B, for use in residential areas	Yes	Yes	Yes
Degree and class of protection			
Degree of protection acc. to EN 60529			
• IP20	Yes	Yes	Yes
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
CSA approval	Yes	Yes	Yes
UL approval	Yes	Yes	Yes
FM approval	Yes	Yes	Yes
developed in accordance with IEC 61131	Yes	Yes	Yes
according to VDE 0631	Yes	Yes	Yes
Marine approval			
• Marine approval	Yes	Yes	Yes
Ambient conditions			
Ambient temperature during operation			
• min.	0 °C	0 °C	0 °C
• max.	55 °C	55 °C	55 °C
Dimensions			
Width	71.5 mm	71.5 mm	71.5 mm
Height	90 mm	90 mm	90 mm
Depth	58 mm	58 mm	58 mm

Article number	6ED1055-1MA00-0BA2 LOGO! AM2 EXPANSION MODULE, 12/24V, 2AI	6ED1055-1MD00-0BA2 LOGO! AM2 RDT, 2AI, -50..+200DECR/C
Installation type/mounting		
Mounting	on 35 mm DIN rail, 2 spacing units wide	on 35 mm DIN rail, 2 spacing units wide
Supply voltage		
Rated value (DC)		
• 12 V DC	Yes; 10.8 V DC to 28.8 V DC	Yes; 10.8 V DC to 28.8 V DC
• 24 V DC	Yes; 10.8 V DC to 28.8 V DC	Yes; 10.8 V DC to 28.8 V DC
Analog inputs		
Number of analog inputs	2	2; 2 or 3 wire connection
Input ranges		
• Voltage	Yes	No
• Current	Yes	No
• Resistance thermometer	No	Yes; For PT100/PT1000 sensors
Input ranges (rated values), voltages		
• 0 to +10 V	Yes	No
Input ranges (rated values), currents		
• 0 to 20 mA	Yes; 0 mA or 4 mA to 20 mA	No
Input ranges (rated values), resistance thermometer		
• Pt 100	No	Yes
EMC		
Emission of radio interference acc. to EN 55 011		
• Limit class B, for use in residential areas	Yes	Yes
Degree and class of protection		
Degree of protection acc. to EN 60529		
• IP20	Yes	Yes

(continued)

Article number	6ED1055-1MA00-0BA2 LOGO! AM2 EXPANSION MODULE, 12/24V, 2AI	6ED1055-1MD00-0BA2 LOGO! AM2 RDT, 2AI, -50...+200DECR/C
Standards, approvals, certificates		
CE mark	Yes	Yes
CSA approval	Yes	Yes
UL approval	Yes	Yes
FM approval	Yes	Yes
developed in accordance with IEC 61131	Yes	Yes
according to VDE 0631	Yes	
Marine approval		
• Marine approval	Yes	Yes
Ambient conditions		
Ambient temperature during operation		
• min.	0 °C	0 °C
• max.	55 °C	55 °C
Dimensions		
Width	35.5 mm	35.5 mm
Height	90 mm	90 mm
Depth	58 mm	58 mm

Article number	6ED1055-1MM00-0BA2 LOGO! AM2 AQ, 2AQ, 0-10V, 0/4-20MA
Installation type/mounting	
Mounting	on 35 mm DIN rail, 2 spacing units wide
Supply voltage	
Rated value (DC)	
• 12 V DC	No
• 24 V DC	Yes
Analog outputs	
Number of analog outputs	2
Output ranges, voltage	
• 0 to 10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• 4 mA to 20 mA	Yes
EMC	
Emission of radio interference acc. to EN 55 011	
• Limit class B, for use in residential areas	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes

Article number	6ED1055-1MM00-0BA2 LOGO! AM2 AQ, 2AQ, 0-10V, 0/4-20MA
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
FM approval	Yes
developed in accordance with IEC 61131	Yes
according to VDE 0631	Yes
Marine approval	
• Marine approval	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	55 °C
Dimensions	
Width	35.5 mm
Height	90 mm
Depth	58 mm

Overview



- The space-saving basic variants
- Interface for connecting expansion modules, up to 24 digital inputs, 20 (16) digital outputs, 8 analog inputs and 8 (2) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 and 0BA7 basic versions); LOGO! TDE can be connected to LOGO! 8 or higher

New for LOGO! 8

- All basic units with integrated Web server
- Same enclosure width as LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controller, SIMATIC Panel and PC
- Use of standard micro CF cards

LOGO! 0BA7 versions:

- Ethernet interface for communication with SIMATIC Controller, SIMATIC Panel and PC
- Networking of max. 8 LOGO! devices
- Use of standard SD card or SIMATIC Memory Card

Note:

SIPLUS LOGO! 6/7 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

Technical specifications

Article number	6AG1052-1CC01-7BA8	6AG1052-1MD00-7BA8	6AG1052-1HB00-7BA8	6AG1052-1FB00-7BA8
Based on	6ED1052-1CC01-0BA8	6ED1052-1MD00-0BA8	6ED1052-1HB00-0BA8	6ED1052-1FB00-0BA8
	SIPLUS LOGO! 24CE	SIPLUS LOGO! 12/24RCE	SIPLUS LOGO! 24RCE	SIPLUS LOGO! 230RCE
Ambient conditions				
Ambient temperature during operation				
• min.	-10 °C; = Tmin; Startup @ 0 °C	-10 °C; = Tmin; Startup @ 0 °C	-10 °C; = Tmin; Startup @ 0 °C	-10 °C; = Tmin; Startup @ 0 °C
• max.	60 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	60 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	60 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	60 °C; Tmax; Tmax > +55 °C max. load 1 A per relay
Ambient temperature during storage/transportation				
• min.	-40 °C	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C	70 °C
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)			
• At cold restart, min.	0 °C	0 °C	0 °C	0 °C
Relative humidity				
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation			
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			

(continued)

Article number	6AG1052-1MD00-2BA7		6AG1052-1FB00-2BA7	
Based on	6ED1052-1MD00-0BA7		6ED1052-1FB00-0BA7	
	SIPLUS LOGO! 12/24RCE		SIPLUS LOGO! 230RCE	
Ambient conditions				
Ambient temperature during operation				
• min.	-25 °C; = Tmin		-25 °C; = Tmin	
• max.	70 °C; = Tmax		70 °C; = Tmax	
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)		Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)	
Relative humidity	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)			
- With condensation, tested in accordance with IEC 60068-2-38, max.				
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			
Article number	6AG1052-1CC01-2BA6	6AG1052-1MD00-2BA6	6AG1052-1HB00-2BA6	6AG1052-1FB00-2BA6
Based on	6ED1052-1CC01-0BA6	6ED1052-1MD00-0BA6	6ED1052-1HB00-0BA6	6AED1052-1FB00-0BA6
	SIPLUS LOGO! 24C	SIPLUS LOGO! 12/24RC	SIPLUS LOGO! 24RC	SIPLUS LOGO! 230RC
Ambient conditions				
Ambient temperature during operation				
• min.	-25 °C; = Tmin	-25 °C; = Tmin	-25 °C; = Tmin	-25 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)
Relative humidity	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)			
- With condensation, tested in accordance with IEC 60068-2-38, max.				
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			

Ordering data	Article No.	Ordering data	Article No.
SIPLUS LOGO! 8 logic module		SIPLUS LOGO! 6 logic module	
SIPLUS LOGO! 24CE Supply voltage 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, integrated time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1CC01-7BA8	SIPLUS LOGO! 24 24 V DC supply voltage, 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, integrated time switch; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1CC01-2BA6
SIPLUS LOGO! 12/24RCE Supply voltage 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, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1MD00-7BA8	SIPLUS LOGO! 12/24RC 12/24 V DC power supply, 8x 12/24 V DC digital inputs, of which 4 can be used in analog mode (0 to 10 V) 4x 10 A relay outputs, integral time switch; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1MD00-2BA6
SIPLUS LOGO! 24RCE Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1HB00-7BA8	SIPLUS LOGO! 24RC 24 V AC/DC supply voltage, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1HB00-2BA6
SIPLUS LOGO! 230RCE Supply voltage 115...230 V AC/DC, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integral time switch, Ethernet interface; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1FB00-7BA8	SIPLUS LOGO! 230RC Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-1FB00-2BA6
SIPLUS LOGO! 7 logic module		SIPLUS LOGO! 6, 7, 8 accessories	
SIPLUS LOGO! 12/24RCE 12/24 V DC supply voltage, 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; 400 function blocks can be interlinked, Ethernet interface, modular expansion capability Extended temperature range and exposure to media	6AG1052-1MD00-2BA7	LOGO! PROM Programming device used to simultaneously reproduce program module contents on up to 8 program modules	6AG1057-1AA01-0BA6
SIPLUS LOGO! 230RCE 115/230 V AC/DC supply voltage, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integral time switch; 400 function blocks can be interlinked, Ethernet interface, modular expansion capability Extended temperature range and exposure to media	6AG1052-1FB00-2BA7	LOGO!Soft Comfort V8 For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	6ED1058-0BA08-0YA1
		LOGO!Soft Comfort V8 Upgrade Upgrade from V1.0 to V8, on DVD	6ED1058-0CA08-0YE1
		Front panel mounting set Width 4 U Width 8 U Width 8 U, with keys	6AG1057-1AA00-0AA0 6AG1057-1AA00-0AA1 6AG1057-1AA00-0AA2

Ordering data	Article No.	Ordering data	Article No.
SIPLUS LOGO! 6, 7 accessories		SIPLUS LOGO! 6 accessories	
SIPLUS LOGO! TD text display (Extended temperature range -10 ... +60 °C and medial loading) 4-line text display, can be connected to all LOGO! basic and pure variants as of -0BA6, including connecting cable	6AG1055-4MH00-2BA0	LOGO! PC cable For program transfer between LOGO! and PC	6ED1057-1AA00-0BA0
LOGO! memory card Program module for copying, with know-how protection	6ED1056-1DA00-0BA0	LOGO! USB PC cable For program transfer between LOGO! and PC, including driver on CD-ROM	6ED1057-1AA01-0BA0
LOGO! battery card Battery module for backing up integral real-time clock (not LOGO! 24)	6ED1056-6XA00-0BA0		
LOGO! memory/battery card Combined program and battery module, with know-how protection and for backing up the integral real-time clock (not LOGO! 24)	6ED1056-7DA00-0BA0		

Overview



- Basic variants optimized for costs
- Interface for connecting expansion modules, up to 24 digital inputs, 16 (20) digital outputs, 8 analog inputs and 2 (8) analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! 0BA6 basic variants)

New for SIPLUS LOGO! 8

- All basic units with integrated Web server
- Same enclosure width as LOGO! 0BA6 (4 U)
- All basic units with Ethernet interface for communication with LOGO!, SIMATIC Controller, SIMATIC Panel and PC
- Use of standard micro CF cards

Note:

SIPLUS LOGO! 6 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were adopted from the respective standard products. SIPLUS extreme specific information was added.

Technical specifications

Article number	6AG1052-2CC01-7BA8	6AG1052-2MD00-7BA8	6AG1052-2HB00-7BA8	6AG1052-2FB00-7BA8
Based on	6ED1052-2CC01-0BA8 SIPLUS LOGO! 24CEO	6ED1052-2MD00-0BA8 SIPLUS LOGO! 12/24RCEO	6ED1052-2HB00-0BA8 SIPLUS LOGO! 24RCEO (AC)	6ED1052-2FB00-0BA8 SIPLUS LOGO! 230RCEO
Ambient conditions				
Ambient temperature during operation				
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay or max. load 3 A per relay and half the number of DIs (no adjacent points)	70 °C; Tmax; Tmax > +55 °C max. load 1 A per relay
Ambient temperature during storage/transportation				
• min.	-40 °C	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C	70 °C
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)			
• At cold restart, min.	0 °C	0 °C	0 °C	0 °C
Relative humidity				
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation			
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			

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Article number	6AG1052-2CC01-2BA6	6AG1052-2MD00-2BA6	6AG1052-2HB00-2BA6	6AG1052-2FB00-2BA6
Based on	6ED1052-2CC01-0BA6	6ED1052-2MD00-0BA6	6ED1052-2HB00-0BA6	6ED1052-2FB00-0BA6
	SIPLUS LOGO! 24CO	SIPLUS LOGO! 12/24RCO	SIPLUS LOGO! 24RCO	SIPLUS LOGO! 230RCO
Ambient conditions				
Ambient temperature during operation				
• min.	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)
Relative humidity	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)			
Resistance	<p>- against biologically active substances / conformity with EN 60721-3-3 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!</p> <p>- against chemically active substances / conformity with EN 60721-3-3 Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!</p> <p>- against mechanically active substances / conformity with EN 60721-3-3 Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!</p>			

Ordering data

Article No.	Article No.
SIPLUS LOGO! 8 logic module	
SIPLUS LOGO! 24CEo 24 V DC supply voltage, 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, integral time switch, Ethernet interface; without display and keyboard; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-2CC01-7BA8
SIPLUS LOGO! 230RCEo 115...230 V AC/DC supply voltage, 8 digital inputs 115...230 V AC/DC, 4 relay outputs 10 A, integral time switch, Ethernet interface; without display or keyboard; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-2FB00-7BA8
SIPLUS LOGO! 24RCEo 24 V AC/DC supply voltage, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch, Ethernet interface; without display or keyboard; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-2HB00-7BA8
	SIPLUS LOGO! 12/24RCEo 12...24 V DC supply voltage, 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, Ethernet interface; without display or keyboard; 400 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media 6AG1052-2MD00-7BA8
	SIPLUS LOGO! 6 logic module
	SIPLUS LOGO! 24o 24 V DC supply voltage, 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, integrated time switch; without display and keyboard; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media 6AG1052-2CC01-2BA6
	SIPLUS LOGO! 230RCo 115/230 V AC/DC supply voltage, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integral time switch; without display and keyboard; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media 6AG1052-2FB00-2BA6

Ordering data	Article No.	Ordering data	Article No.
SIPLUS LOGO! 24RCo 24 V AC/DC supply voltage, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integral time switch; without display and keyboard; 200 function blocks can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-2HB00-2BA6	SIPLUS LOGO! 6 accessories SIPLUS LOGO! TD text display (Extended temperature range -10 ... +60 °C and medial loading) 4-line text display, can be connected to all LOGO! basic and pure variants as of -0BA6, including connecting cable	6AG1055-4MH00-2BA0
SIPLUS LOGO! 12/24RCo 12/24 V DC supply voltage, 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 can be interlinked, modular expansion capability Extended temperature range and exposure to media	6AG1052-2MD00-2BA6	LOGO! memory card Program module for copying, with know-how protection	6ED1056-1DA00-0BA0
SIPLUS LOGO! 6, 8 accessories		LOGO! battery card Battery module for backing up integral real-time clock (not LOGO! 24)	6ED1056-6XA00-0BA0
LOGO! PROM Programming device used to simultaneously reproduce pro- gram module contents on up to 8 program modules	6AG1057-1AA01-0BA6	LOGO! memory/battery card Combined program and battery module, with know-how protection and for backing up the integral real-time clock (not LOGO! 24)	6ED1056-7DA00-0BA0
LOGO!Soft Comfort V8 For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD	6ED1058-0BA08-0YA1	LOGO! PC cable For program transfer between LOGO! and PC	6ED1057-1AA00-0BA0
LOGO!Soft Comfort V8 Upgrade Upgrade from V1.0 to V8, on DVD	6ED1058-0CA08-0YE1	LOGO! USB PC cable For program transfer between LOGO! and PC, including driver on CD-ROM	6ED1057-1AA01-0BA0
Front panel mounting set Width 4 U Width 8 U Width 8 U, with keys	6AG1057-1AA00-0AA0 6AG1057-1AA00-0AA1 6AG1057-1AA00-0AA2		

Overview



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

Note:

SIPLUS LOGO! 6 versions are not compatible with SIPLUS LOGO! 8.

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were adopted from the respective standard products. SIPLUS extreme specific information was added.

Technical specifications

Article number	6AG1055-1CB00-7BA2	6AG1055-1HB00-7BA2	6AG1055-1MB00-7BA2
Based on	6ED1055-1CB00-0BA2	6ED1055-1HB00-0BA2	6ED1055-1MB00-0BA2
	SIPLUS LOGO! DM8 24 V8	SIPLUS LOGO! DM8 24R V8	SIPLUS LOGO! DM8 12/24R V8
Ambient conditions			
Ambient temperature during operation			
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; Tmax; Tmax > +55 °C max. load 0.2 A per output	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A
Ambient temperature during storage/transportation			
• min.	-40 °C	-40 °C	-40 °C
• max.	70 °C	70 °C	70 °C
Extended ambient conditions			
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)		
• At cold restart, min.	-25 °C	-25 °C	-25 °C
Relative humidity			
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation		
Resistance			
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!		
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!		
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!		

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Article number	6AG1055-1FB00-7BA2	6AG1055-1NB10-7BA2
Based on	6ED1055-1FB00-0BA2 SIPLUS LOGO! DM8 230R V8	6ED1055-1NB10-0BA2 SIPLUS LOGO! DM16 24R V8
Ambient conditions		
Ambient temperature during operation		
• min.	-40 °C; = Tmin; Startup @ -25 °C	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay or max. total current 10 A	70 °C; = Tmax; Tmax > +55 °C max. load 3 A per relay
Ambient temperature during storage/transportation		
• min.	-40 °C	-40 °C
• max.	70 °C	70 °C
Extended ambient conditions		
• At cold restart, min.	-25 °C	-25 °C
Relative humidity	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	
- With condensation, tested in accordance with IEC 60068-2-38, max.		
Resistance	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!	
- against biologically active substances / conformity with EN 60721-3-3		
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!	
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!	

Article number	6AG1055-1MA00-7BA2
Based on	6ED1055-1MA00-0BA2 SIPLUS LOGO! AM2 V8
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Extended ambient conditions	
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• At cold restart, min.	-25 °C
Relative humidity	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
- With condensation, tested in accordance with IEC 60068-2-38, max.	
Resistance	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against biologically active substances / conformity with EN 60721-3-3	
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

Article number	6AG1055-1MM00-7BA2
Based on	6ED1055-1MM00-0BA2 SIPLUS LOGO! AM2 AQ V8
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin; Startup @ -25 °C
• max.	70 °C; = Tmax
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Extended ambient conditions	
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
• At cold restart, min.	-25 °C
Relative humidity	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
- With condensation, tested in accordance with IEC 60068-2-38, max.	
Resistance	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against biologically active substances / conformity with EN 60721-3-3	
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

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Article number	6AG1055-1CB00-2BY0	6AG1055-1PB00-2BY0	6AG1055-1HB00-2BY0	6AG1055-1MB00-2BY1
Based on	6ED1055-1CB00-0BA0	6ED1055-1CB00-0BA0	6ED1055-1HB00-0BA0	6ED1055-1MB00-0BA1
	SIPLUS LOGO! DM8 24	SIPLUS LOGO! DM8 12/24	SIPLUS LOGO! DM8 24R (-2BY0)	SIPLUS LOGO! DM8 12/24R
Ambient conditions				
Ambient temperature during operation				
• min.	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity				
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)			
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			
<hr/>				
Article number	6AG1055-1FB00-2BY1		6AG1055-1NB10-2BA0	
Based on	6ED1055-1FB00-0BA1		6ED1055-1NB10-0BA0	
	SIPLUS LOGO! DM8 230R		SIPLUS LOGO! DM16 24R EXP. MODULE	
Ambient conditions				
Ambient temperature during operation				
• min.	-40 °C; = Tmin		-25 °C; = Tmin	
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use		70 °C; = Tmax; 55 °C @ UL/cUL use	
Extended ambient conditions				
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m)		Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)	
Relative humidity				
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)			
Resistance				
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!			
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!			
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!			

(continued)

Article number	6AG1055-1MA00-2BY0
Based on	6ED1055-1MA00-0BA0 SIPLUS LOGO! AM2
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions	
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity	
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
Resistance	
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

Article number	6AG1055-1MM00-2BY1
Based on	6ED1055-1MM00-0BA1 SIPLUS LOGO!_AM2_AQ
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin
• max.	70 °C; = Tmax; 55 °C @ UL/cUL use
Extended ambient conditions	
• relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity	
- With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
Resistance	
- against biologically active substances / conformity with EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
- against chemically active substances / conformity with EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!
- against mechanically active substances / conformity with EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

Ordering data

SIPLUS LOGO! 8 expansion modules

SIPLUS LOGO! DM8 24

Supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A

Extended temperature range and exposure to media

6AG1055-1CB00-7BA2

SIPLUS LOGO! DM8 230R

115...230 V AC/DC supply voltage, 4 digital inputs 115...230 V AC/DC, 4 relay outputs 5 A

Extended temperature range and exposure to media

6AG1055-1FB00-7BA2

SIPLUS LOGO! DM8 24R

Supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A

Extended temperature range and exposure to media

6AG1055-1HB00-7BA2

SIPLUS LOGO! AM2

12...24 V DC supply voltage, 2 analog inputs 0 to 10 V or 0 to 20 mA, resolution 10 bit

Extended temperature range and exposure to media

6AG1055-1MA00-7BA2

Article No.

SIPLUS LOGO! DM8 12/24R

12...24 V DC supply voltage, 4 digital inputs 12...24 V DC, 4 relay outputs 5 A

Extended temperature range and exposure to media

6AG1055-1MB00-7BA2

SIPLUS LOGO! AM2 AQ

Supply voltage 24 V DC, 2 analog outputs 0 to 10 V, 0/4 to 20 mA

Extended temperature range and exposure to media

6AG1055-1MM00-7BA2

SIPLUS LOGO! DM16 24R

Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A

Extended temperature range and exposure to media

6AG1055-1NB10-7BA2

Ordering data	Article No.	Article No.
SIPLUS LOGO! 6 expansion modules		SIPLUS LOGO! 6, 8 accessories
SIPLUS LOGO! DM8 24 24 V DC supply voltage, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A Extended temperature range and exposure to media	6AG1055-1CB00-2BY0	LOGO! PROM 6AG1057-1AA01-0BA6 Programming device used to simultaneously reproduce program module contents on up to 8 program modules
SIPLUS LOGO! DM8 230R 115/230 V AC/DC supply voltage, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A Extended temperature range and exposure to media	6AG1055-1FB00-2BY1	LOGO!Soft Comfort V8 6ED1058-0BA08-0YA1 For programming on the PC in LAD/FBD; executes on Windows 8, 7, XP, Linux and Mac OSX; on DVD
SIPLUS LOGO! DM8 24R 24 V AC/DC supply voltage, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A Extended temperature range and exposure to media	6AG1055-1HB00-2BY0	LOGO!Soft Comfort V8 Upgrade 6ED1058-0CA08-0YE1 Upgrade from V1.0 to V8, on DVD
SIPLUS LOGO! AM2 12/24 V DC supply voltage, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10-bit resolution Extended temperature range and exposure to media	6AG1055-1MA00-2BY0	Front panel mounting set Width 4 U 6AG1057-1AA00-0AA0 Width 8 U 6AG1057-1AA00-0AA1 Width 8 U, with keys 6AG1057-1AA00-0AA2
SIPLUS LOGO! DM8 12/24R 12/24 V DC supply voltage, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A Extended temperature range and exposure to media	6AG1055-1MB00-2BY1	SIPLUS LOGO! 6 accessories
SIPLUS LOGO! AM2 AQ 24 V DC supply voltage, 2 analog inputs 0 ... 10 V, 0/4 ... 20 mA, 10-bit resolution Extended temperature range and exposure to media	6AG1055-1MM00-2BY1	SIPLUS LOGO! TD text display 6AG1055-4MH00-2BA0 (Extended temperature range -10 ... +60 °C and medial loading) 4-line text display, can be connected to all LOGO! basic and pure variants as of -0BA6, including connecting cable
SIPLUS LOGO! DM16 24R 24 V DC supply voltage, 8 digital outputs 24 V DC, 8 relay outputs 5 A Extended temperature range and exposure to media	6AG1055-1NB10-2BA0	LOGO! memory card 6ED1056-1DA00-0BA0 Program module for copying, with know-how protection
SIPLUS LOGO! DM8 12/24 12/24 V DC supply voltage, 4 digital inputs 12/24 V DC, 4 digital outputs 24 V DC, 0.3 A Extended temperature range and exposure to media	6AG1055-1PB00-2BY0	LOGO! battery card 6ED1056-6XA00-0BA0 Battery module for backing up integral real-time clock (not LOGO! 24)
		LOGO! memory/battery card 6ED1056-7DA00-0BA0 Combined program and battery module, with know-how protection and for backing up the integral real-time clock (not LOGO! 24)
		LOGO! PC cable 6ED1057-1AA00-0BA0 For program transfer between LOGO! and PC
		LOGO! USB PC cable 6ED1057-1AA01-0BA0 For program transfer between LOGO! and PC, including driver on CD-ROM

Overview



- Expansion module for LOGO! 8 basic versions
- For integrating LOGO! 8 in KNX installations
- With 24 digital inputs, 20 digital outputs as well as 8 analog inputs and outputs for processing process signals via KNX.

Technical specifications

Article number	6BK1700-0BA20-0AA0 LOGO! CMK2000
General information	
Firmware version	
• FW update possible	Yes
Installation type/mounting	
Mounting	on 35 mm DIN rail, 4 spacing units wide
Supply voltage	
Rated value (DC)	24 V
• 12 V DC	No
• 24 V DC	Yes
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Rated value (AC)	
• 24 V AC	No
Input current	
Current consumption, max.	0.04 A
Power loss	
Power loss, max.	1.1 W
Memory	
Flash	Yes
Time of day	
Clock synchronization	
• supported	Yes
Interfaces	
Transmission rate, max.	100 Mbit/s over Ethernet, 9 600 bit/s over KNX
Protocols	
EIB/KNX	Yes
Web server	
• supported	Yes

Article number	6BK1700-0BA20-0AA0 LOGO! CMK2000
Diagnostics indication LED	
• RUN/STOP LED	Yes
EMC	
Emission of radio interference acc. to EN 55 011	
• Limit class B, for use in residential areas	Yes; In accordance with EN 61000-6-3
Degree and class of protection	
Degree of protection acc. to EN 60529	
• IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL approval	Yes
cULus	Yes
FM approval	No
RCM (formerly C-TICK)	No
KC approval	Yes
EAC (formerly Gost-R) according to VDE 0631	Yes
• according to VDE 0631	No
Marine approval	
• Marine approval	No
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	55 °C
Ambient temperature during storage/transportation	
• min.	-40 °C
• max.	70 °C
Relative humidity	
• Operation, max.	95 %
Connection method	
Bus connector	KNX terminal 0.6 mm ² - 1.0 mm ²
Power supply	2 screw-type terminals: L+, M 0.5 mm ² - 2.5 mm ² Screw-type terminal: FE 0.5 mm ² ... 6.0 mm ²
Dimensions	
Width	71.5 mm; 4 WU
Height	90 mm
Depth	58.5 mm
Weights	
Weight, approx.	0.14 kg

Ordering data

Article No.

LOGO! CMK2000 communication module	6BK1700-0BA20-0AA0
For integrating LOGO! 8 in the KNX building system bus, max. 50 communication objects can be configured; RJ45 port for Ethernet; supply voltage 24 V DC/40 mA	