

**SIEMENS**

*Ingenuity for life*

Top integration. Top efficiency.  
Top reliability. SITOP

SITOP Power Supply

[usa.siemens.com/sitop](http://usa.siemens.com/sitop)

# You can invest a lot in your power supply. Or you can profit from it.

## Seamlessly integrating the power supply

SITOP is setting new standards when it comes to integration: Power supplies that can be fully integrated into Totally Integrated Automation (TIA) and the TIA portal save time and money, are simple, and provide failure safety during engineering. For the first time, SITOP allows you to do this with the PSU8600 power supply system and the UPS1600 uninterruptible power supply. To improve productivity, all automation products also need to be capable of easy integration in all processes, from product selection and purchase to design and configuration. SITOP supports operators here with an intuitive selection tool for the fast selection of both the power supply and a DC UPS. In addition, it provides you with all mechanical and electrical design data and product documentation.

## Optimizing energy efficiency

Rising energy prices have a direct impact on a company's competitiveness. This makes it all the more important to consistently improve energy efficiency, even for small loads – for example in the control cabinet. The power supply unit is, in this case, the central power source of the DC loads, and is where the high efficiency of regulated SITOP power supply units can offer a significant saving potential.

## Boosting reliability

SITOP stands for a high-quality direct-current supply. The power supply units themselves provide reliable protection against many types of network faults that can occur even in the most modern power grids. But there are also external conditions that require additional protective measures, such as fluctuating grid quality to which plant manufacturers operating in global export markets must be able to respond. SITOP protects against faults on the supply network and the DC side with special add-on modules, thereby ensuring the necessary supply reliability.

## SITOP – at the top in every respect

Since Siemens presented the first regulated power supplies at the price of unregulated in 1993, SITOP has become the world's best-selling industrial power supply solution. Our portfolio is the result of more than 20 years of continuous research, requirement analysis, and ongoing development. Today SITOP is the leading power supply across all industrial sectors, with a comprehensive range of expansion components for applications of every kind. As an element of the Siemens environmental portfolio, SITOP plays an important role in increasing sustainability in industry.

Use this brochure to help you find the right products and information about SITOP Power Supplies.

Another option to help you find the right products and information is the SITOP Selection Tool. Just navigate to [siemens.com/sitop-selection-tool](http://siemens.com/sitop-selection-tool) and see the easy instructions below!

1. Select Power supplies or DC UPS, then click the "Proceed" button on the lower right corner to input basic selection criteria.



Click the "Proceed" button on the lower right corner to input basic selection criteria.

2. Enter basic information like output voltage and current needed for your application.



The SITOP portfolio narrows based on your input to help you identify the right product.

Next, you can compare products in a table and export PDF documentation with the buttons below.



# Networked Power Supply - the modular PSU8600 offers complete TIA integration



## Top integration – with complete system integration into TIA

The innovative SITOP PSU8600 power supply system is completely integrated into Totally Integrated Automation (TIA) and is integrated directly into networked machines and systems via its Ethernet/PROFINET interface.

Engineering in the TIA Portal is convenient – whether in terms of product selection, network connection or device parameterization. Furthermore, the evaluation of extensive operational and diagnostic data is supported by preassembled function modules for SIMATIC S7 user programs. Free SIMATIC Panel or WinCC faceplates are available for operating and monitoring purposes.

Meanwhile, the SINEMA Server network management software makes it easy to monitor device status and the network connection. The integrated web server also allows power supply monitoring or diagnosis to be performed remotely.

Support is also provided for integration into energy management systems via PROFINET or selectively switching off outputs using PROFIenergy, which saves power during break times and keeps operating costs down.

## Top reliability – thanks to selectivity and monitoring

The comprehensive diagnostic options offered by the SITOP PSU8600 power supply system provide the basis for preventive maintenance. This means faults can be identified, traced and analyzed in the shortest possible time.

To prevent a short circuit or overload on a single load from causing an outage in the entire plant, all outputs, whose voltage and current threshold can be individually adjusted, are selectively monitored and individually switched off in the event of failure.

SITOP PSU8600 is the first power supply system that is completely embedded in Totally Integrated Automation (TIA).

- **Reduce downtime** with remote monitoring and diagnostics with alarms
- **Save costs** by extending up to 20 outputs with no additional wiring
- **Flexibility** achieved by setting each voltage output independently from 5-28 V DC - remotely!

## The modular system toolbox



### Base unit

Power supply 24 V/20 A or 40 A with one or four selectively monitored outputs



### Expansion modules

Expansion up to 20 selectively monitored outputs



### Buffer modules

Bridging short power failures up to 20 seconds at 40 A

Because the voltage and current for each output can be continuously recorded and transmitted via PROFiNET, dynamic, continuous or more frequent overload situations can be identified and plant downtimes prevented at an early stage.

Buffer modules with electrolytic or double-layer capacitors (ultracaps) are used for short power failures – ideal protection, especially for sensitive production areas. The time of the power failure is recorded and can be subsequently used as an indicator for the quality of the mains infeed. Expansion with the two larger buffer modules with ultracaps makes it possible to bridge power failures of up to 20 seconds at a load current of 40 A. Because buffer time with a lower load current is longer, there is even time to safely shut down a PC.

### Top efficiency – from engineering through to operation

When machines and systems have to be configured and commissioned even more quickly and easily, and operated even more economically, SITOP PSU8600 is the ideal tool.

Even compact base units of up to 94 percent efficiency have one or four outputs that can be selectively monitored for excess current, saving both space and wiring effort.

Individual parameterization of the outputs allows other voltages to be made available, which makes a separate power supply unit superfluous.

Expansions from the modular system toolbox – to monitor additional outputs or to buffer brief power failures – are available to meet highest requirements. And the innovative System Clip Link connection system means no additional wiring is required.

Current and voltage for all outputs are recorded during operation, and outputs can be selectively switched off via PROFienergy. This supports higher-level power management – and in the process ensures even greater efficiency.

# Overview of SITOP product lines



## SITOP compact

The slim power supply for control boxes

SITOP compact was developed to be an extremely space-saving power supply for the lower power range. It is especially suited to distributed applications in control boxes and in small control cabinets. Its high efficiency over the entire load range and low no-load loss make it exceptionally efficient. It is ideal for applications that are often in standby mode.



## SITOP lite

The cost-effective basic power supply

SITOP lite is the power supply series for basic requirements in the industrial environment, offering all the important functions at a low cost – without compromising quality and reliability. The wide-range input with manual switchover supports connection to a wide range of single-phase supply systems.



## LOGO!Power

The flat power supply for distribution boards

The miniature power supply units in the LOGO!Power series can be deployed in a large number of applications in the lower power range. Their extreme flexibility is made possible by the units' diverse output voltages, wide input voltage range with optional DC operation, and flat, stepped profile for installation in distribution boards.



## SITOP smart

The powerful standard power supplies

SITOP smart is the optimal power supply for many 24 V and 12 V applications, featuring compact design, powerful performance, and low price. Despite its compact size, it offers outstanding overload characteristics thanks to the extra power feature that provides 1.5 times the rated current for five seconds: Even large loads can be easily switched on. And with a rated capacity of 120 percent, these slim power supplies are among the most reliable of their kind.



## SITOP modular

The technology power supply for demanding solutions

SITOP modular provides maximum functionality for use in complex plants and machines. Its wide-range input allows it to be connected to any supply system in the world and also guarantees a high level of safety, even in the event of large voltage fluctuations. The power boost briefly delivers up to three times the rated current: and in the case of an overload, you can choose between constant current with automatic restart or latching shutdown. This unit's high efficiency keeps the energy consumption and heat development in the control cabinet down to a low level, and the compact metal enclosure also saves space. The innovative SITOP PSU8600 power supply system can also be fully integrated into networked automation applications and the TIA Portal, and enables entirely new parameterization and diagnostic options.



## SIMATIC Design

The optimal supply for SIMATIC S7 and more

The design and functionality of the original SIMATIC power supplies merge into the SPS network. Together with the SIMATIC systems S7-300, S7-1200, S7-1500, and the distributed I/O modules ET 200pro, ET 200M, and ET 200MP they also supply other loads reliably with 24 V.



## Special designs

Equipped for special functions and conditions

Restricted installation conditions, harsh environmental conditions, or special input and output voltages: these standard power supplies meet even exceptional requirements. For example: low-cost 12 V and 24 V power supply units in rugged aluminum enclosures for direct wall mounting in various installation positions and power supplies in protection mode IP67. Or power supplies with special functions like battery charging and flexibly adjustable output voltage.

		SITOP compact			LOGO!Power			SITOP lite		SITOP smart		SITOP modular			
Output	Rated voltages (V DC)	12	24		5	12	15	24	24	12	24	24	24	36	48
	Rated currents (A)	2/6.5	0.6/1.3/2.5/4		3/6.3	1.9/4.5	1.9/4	1.3/2.5/4	2.5/5/10	7/14	2.5/5/10/20	5/10/20/40	5/10/20/40	13	10/20
Input	1-phase		•			•			•	•	•		•		
	DC input		•			•									
	3-phase											•		•	
General	Overload characteristics					+					+			++	
	Energy efficiency		++			+			+		+			++	
	Switchable parallel		+			+			+		+			++	
	Signaling contact "Output voltage OK"										•			•	
	Ambient temperature range		++			++			•		+			++	
Safety	Explosion protection: ATEX, IECEx, or FM		•			•					•			•	
	Approved for shipbuilding: GL or ABS					•					•			•	
Expandable	- Redundancy module		•					•	•		•		•		
	- Selectivity/diagnostic module		•					•	•		•		•		
	- Buffer module										•		•		
	- DC UPS		•					•	•		•		•		

## Selection matrix of SITOP product lines

# Networked Uninterruptable Power Supply (UPS) - the UPS1600 offers complete TIA integration



## DC UPS, uninterruptible DC power supply

Reliable 24-V supply – even when the power fails

### SITOP DC UPS with capacitors

These highly-capacitive double-layer capacitors store sufficient energy to shut down PC-based systems safely.

### Totally maintenance-free

The capacitors have an extremely long life even at high ambient temperatures. No maintenance or replacement of the energy buffer is required, which means that the DC UPS pays for itself within a short time. And because the capacitors do not emit any gas, no ventilation of the control cabinet is required. Short recharging times quickly restore buffering capability following a power failure.

### For use both inside and outside the control cabinet

The buffering time of the UPS500S for DIN rail mounting can be extended by adding expansion modules. The SITOP UPS500P is designed with IP65 degree of protection and can be used on a distributed basis, for example, supplied by power supply unit SITOP PSU100P.

- Variant expandable up to 20 kW for longer buffering times
- IP65 version for environments with high levels of contamination and humidity
- Capacitors eliminate replacement of batteries
- Long life even at high temperatures
- No ventilation of the installation site required
- Communication via contacts or USB

### The UPS1600 provides...

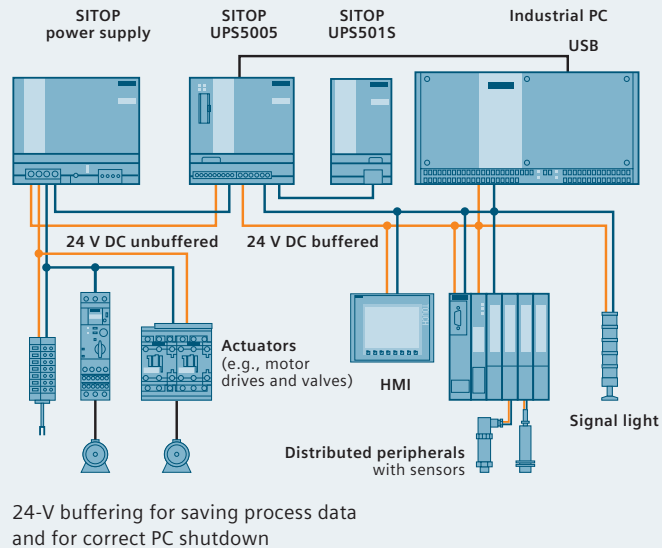
- Remote monitoring and diagnostics with alarms
- Integrated webserver

### Enabling you to...

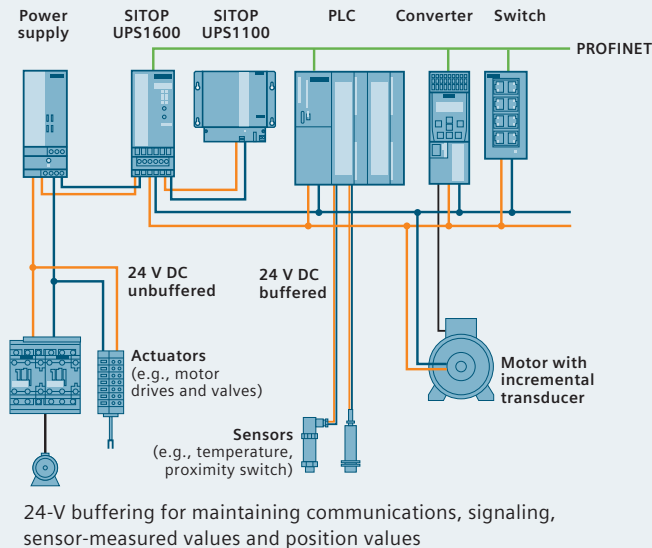
- Monitor the charge level of the battery
- Verify power supply operation
- Receive notifications when battery power is activated - remotely!
- Initiate applications and a safe shutdown of your PC



SITOP DC UPS configuration with capacitors



SITOP DC UPS configuration with battery modules



### SITOP DC UPS with battery modules

Compact DC UPS modules ensure continued operation, even over a period of hours, depending on battery capacity and power requirements.

#### High system availability thanks to battery management

- Sophisticated battery management ensures optimal battery charging. The charging process is temperature-controlled thanks to the innovative SITOP UPS1600, which also increases the service life of the UPS1100 battery module.
- SITOP UPS1600 DC UPS modules (24 V DC and up to 40 A) and UPS1100 battery modules up to 12 Ah

- UPS1100 5 Ah lithium battery module (LiFePo4) with a constant power output and voltage throughout the discharging range in conjunction with a high level of temperature stability and an especially long lifetime
- Monitoring of operational readiness, battery feeder, and charging status
- Extended battery life thanks to battery management

#### Extremely communicative

Optional communication via USB or Industrial Ethernet/PROFINET. With open communication via Ethernet, the SITOP UPS Manager PC-based software allows easy configuration and diagnostics. The software includes

an OPC UA server for the flexible integration of a wide variety of systems.

- The UPS1600 can even be fully integrated into TIA via PROFINET. Remote monitoring is possible with support from the integrated Web server.
- Communication via contacts, USB, or two Ethernet/PROFINET ports
- Easy engineering and extensive diagnostics in TIA Portal
- Integrated web server
- OPC UA server for the flexible integration of a wide variety of automation, operating, and monitoring systems

# SITOP Power Security modules – all-round protection à la carte



## Add-on modules

For increasing system availability  
to all-round protection

### Safeguarding against failure through redundancy

Two power supply units can be connected via the SITOP redundancy module for additional failure safety. If one unit fails, the other automatically takes over the power supply function. In this way the power supply is safeguarded in unstable conditions.

### Selective disconnection of faulty 24-V feeders

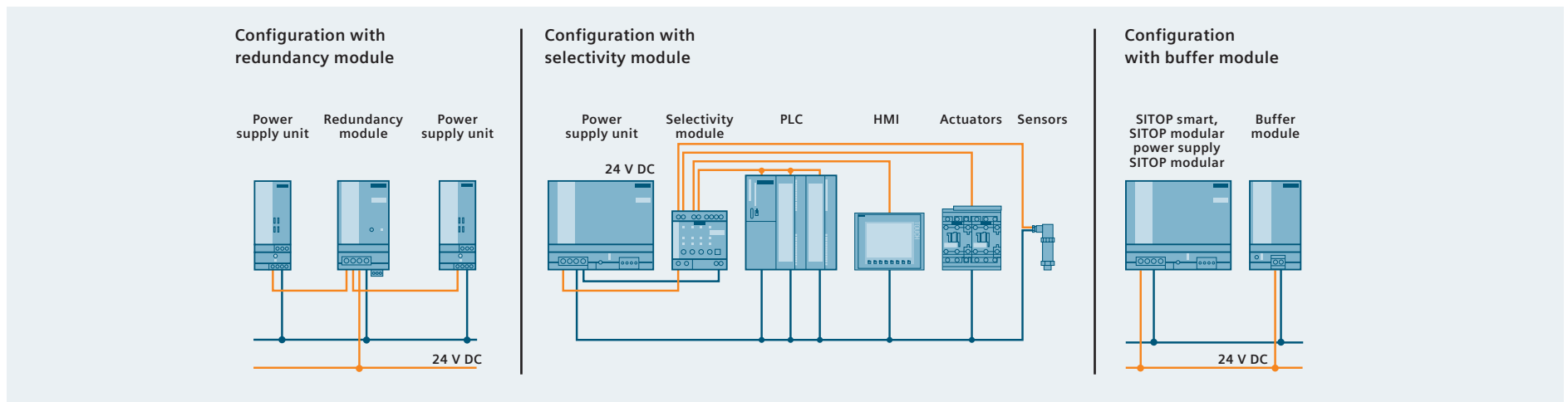
The selectivity module SITOP PSE200U is specially tailored to the characteristics of switched-mode power supplies. The electronics permit brief current peaks and switch longer overloads off-circuit, even on long thin cables and with earth leakages in which the current is limited by high resistance.

In this case the circuit-breakers do not trip, or they trip too late, even if the power supply could deliver the current. The selectivity module reliably disconnects the faulty load circuits, and the supply to the other loads continues with absolutely no interruption so that total failure of the plant can be avoided. The fault is output via a common signaling contact and indicated by an LED on the relevant load circuit. The option with single-channel signaling also allows remote channel-specific fault location.

Receive alarms when overload or short circuit occurs

Reduce downtime by protecting against

- Power failure
- Overload and short circuit
- Abrupt PC shutdown



**Did you know that...** our customers use SITOP power supply units in manufacturing, process and building automation in over 190 countries worldwide?

### Buffer module bridges brief power failures

Power failures usually last only for fractions of a second – however, they can cause time- and cost-intensive damage to sensitive production areas. Used in combination with the 24-V DC power supply units of the SITOP smart product lines or SITOP modular power supply units, the buffer module bridges short-duration voltage dips with its electrolytic capacitors and reliably preserves interruption-free operation.

#### Protection against...

Protection against...	Redundancy module	Selectivity/ diagnostic module	Buffer module	DC UPS with capacitors	DC UPS with batteries
Failure of a power supply unit	•				
Overload in the 24-V circuit		•			
Power failure in the seconds range			•	•	•
Power failure up to the minutes range				•	•
Power failure up to the hours range					•

SITOP add-on module selection matrix

# Selection table

## SITOP power supplies

Input voltage	Output current	SITOP compact	LOGO!Power	SITOP lite	SITOP smart	SITOP modular	SIMATIC Design	"Special design, special use"
<b>Output voltage 24 V DC</b>								
<b>1-phase 120 V AC, 230 V AC</b>	0.6 A	6EP1331-5BA00						
	1.3 A	6EP1331-5BA10	6EP1331-1SH03					
	2 A						6ES7307-1BA01-0AA0	6EP1331-1LD00
	2.5 A	6EP1332-5BA00	6EP1332-1SH43	6EP1332-1LB00	6EP1332-2BA20		6EP1332-1SH71	
	3 A						6EP1332-4BA00	6EP1332-1LD00
	3.7 A	6EP1332-5BA20						
	4 A	6EP1332-5BA10	6EP1332-1SH52					6EP1332-1LD10
	5 A			6EP1333-1LB00	6EP1333-2BA20	6EP3333-8SB00-0AY0	6ES7307-1EA01-0AA0	6EP1333-1AL12
						6EP1333-3BA10	6ES7307-1EA80-0AA0	6EP1333-7CA00
	6.2 A							6EP1333-1LD00
	8 A						6EP1333-4BA00	6EP1334-7CA00
	10 A			6EP1334-1LB00	6EP1334-2BA20	6EP3334-8SB00-0AY0	6ES7307-1KA02-0AA0	6EP1334-1AL12
					6EP1334-2AA01-0AB0	6EP1334-3BA10		
	12.5 A							6EP1334-1LD00
	20 A			6EP1336-1LB00	6EP1336-2BA10	6EP1336-3BA10		
	40 A					6EP3334-8SB00-0AY0		
						6EP1337-3BA00		
						6EP1333-3BA10 <sup>1)</sup>		
<b>3-phase 400 – 500 V AC</b>	5 A				6EP1433-2BA20	6EP1333-3BA10 <sup>1)</sup>		
	8 A						6ES7148-4PC00-0HA0	6ES7 148-4PC00-0HA0
	10 A				6EP1434-2BA20	6EP1334-3BA10 <sup>1)</sup>		
	17 A							
	20 A				6EP1436-2BA10	6EP3436-8SB00-0AY0		
						6EP3436-8SB00-2AY0		
	20 A / 4 x 5 A					6EP3436-8MB00-2CY0		
	30 A							6EP1437-3BA20
	40 A				6EP1437-2BA20	6EP1437-3BA10		
						6EP3437-8SB00-2AY0		
	40 A / 4 x10 A					6EP3437-8MB00-2CY0		
<b>24 – 110 V DC</b>	2 A						6ES7305-1BA80-0AA0	
<b>110 – 300 V DC</b>	0.6 A	6EP1331-5BA00						
	1.3 A	6EP1331-5BA10	6EP1331-1SH03					
	2.5 A	6EP1332-5BA00	6EP1332-1SH43					
	4 A	6EP1332-5BA10	6EP1332-1SH52					
<b>88...350 (370) V DC</b>	20 A					6EP1336-3BA10		
<b>600 V DC</b>	20 A							6EP1536-3AA00

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

Grey: more information in the Industry Mall  
[usa.siemens.com/industrymall](http://usa.siemens.com/industrymall)

Input voltage	Output	SITOP compact	LOGO!Power	SITOP smart	SITOP modular	"Special design special use"
<b>Output voltage 5, 12, 15, 48, ... V DC</b>						
<b>1-phase 120 V AC, 230 V AC</b>	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					6EP1321-1LD00
	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					6EP1322-1LD00
	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					6EP1353-2BA00
	2 x 15 V/3.5 A					6EP1353-0AA00
<b>24 V DC</b>	12 V/2.5 A					6EP1621-2BA00
	12 V/20 A					6EP4424-8UB00-0AY0
<b>3-phase 400 – 500 V AC</b>	36 V/13 A				6EP3446-8SB10-0AY0	
	48 V/10 A				6EP1456-3BA00	
	48 V/20 A				6EP1457-3BA00	

#### SITOP Selection Tool Making the perfect choice

The SITOP selection tool shortens the time it takes to select not only your power supply but also the matching uninterruptible power supply (DC UPS) based on capacitor or battery technology. You can order the selected products easily via the Siemens Industry Mall. And you'll also receive further information such as product data sheets, 3D data, or circuit diagram macros for fast and easy project planning.

The tool is available on the internet and in the Industry Mall:

[www.siemens.com/sitop-selection-tool](http://www.siemens.com/sitop-selection-tool)  
[www.siemens.com/industrymall](http://www.siemens.com/industrymall)



**Step 1:**  
The appropriate power supplies are preselected based on the user's technical requirements



**Step 2:**  
Several power supplies can be compared based on their technical data for further product selection









**Step 3:**  
After the desired products have been selected from the product list, these selections can be exported or transferred directly to the user's Industry Mall shopping basket



# SITOP compact

## Slim power supply for control boxes

							
Technical data	Overall width 22.5 mm	Overall width 30 mm		Overall width 45 mm	Overall width 52.5 mm		
Output voltage / current, type	24 V/0.6 A, PSU100C	24 V/1.3 A, PSU100C	12 V/2 A, PSU100C	24 V/2.5 A, PSU100C	24 V/4 A, PSU100C	24 V/3.7 A, PSU100C NEC Class 2	12 V/6.5 A, PSU100C
Article No.	6EP1331-5BA00	6EP1331-5BA10	6EP1321-5BA00	6EP1332-5BA00	6EP1332-5BA10	6EP1332-5BA20	6EP1322-5BA10
Rated input voltage – Range	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC	100–230 V AC 85...264 V AC/ 110...300 V DC
Mains buffering	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)	> 20 ms (at 120/230 V AC)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current – Recommended miniature circuit breaker	0.28–0.18 A 10 A characteristic C 16 A characteristic B	0.63–0.31 A 10 A characteristic C 16 A characteristic B	0.63–0.31 A 10 A characteristic C 16 A characteristic B	1.33–0.67 A 10 A characteristic C 16 A characteristic B	2.25–1.15 A 10 A characteristic C 16 A characteristic B	1.21–0.67 A 10 A characteristic C 16 A characteristic B	1.6–0.75 A 10 A characteristic C 16 A characteristic B
Rated output voltag – Tolerance – Setting range	24 V DC ± 3 % –	24 V DC ± 3 % 22.2...26.4 V DC	12 V DC ± 3 % 10.5...12.9 V DC	24 V DC ± 3 % 22.2...26.4 V DC	24 V DC ± 3 % 22.2...26.4 V DC	24 V DC ± 3 % –	12 V DC ± 3 % 10.5...12.9 V DC
Rated output current – Derating	0.6 A from +55 °C (3 %/K)	1.3 A from +55 °C (3 %/K)	2 A from +55 °C (3 %/K)	2.5 A from +50 °C (3.5 %/K)	4 A from +50 °C (3.5 %/K)	3.7 A from +50 °C (3.5 %/K)	6.5 A from +50 °C (3.5 %/K)
Efficiency at rated values, approx.	82 %	86 %	82 %	87 %	88 %	87 %	86 %
No-load loss	< 0.75 W	< 0.75 W	< 0.75 W	< 0.75 W	< 0.75 W	< 0.75 W	< 0.75 W
Signaling contact “DC o. k.”	No	No	No	No	No	No	No
Parallel switching	No	Yes <sup>2)</sup>	Yes <sup>2)</sup>	Yes <sup>2)</sup>	Yes <sup>2)</sup>	No	Yes <sup>2)</sup>
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Not applicable	Not applicable	Not applicable	Not applicable	Yes	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Ambient temperature	–20...+70 °C	–20...+70 °C	–20...+70 °C	–20...+70 °C	–20...+70 °C	–20...+70 °C	–20...+70 °C
Dimensions (WxHxD) in mm	22.5 x 80 x 100	30 x 80 x 100	30 x 80 x 100	45 x 80 x 100	52.5 x 80 x 100	52.5 x 80 x 100	52.5 x 80 x 100
Weight approx.	0.12 kg	0.17 kg	0.12 kg	0.22 kg	0.32 kg	0.32 kg	0.32 kg
Connections <sup>1)</sup>	Removable screw terminal	Removable screw terminal	Removable screw terminal	Removable screw terminal	Removable screw terminal	Removable screw terminal	Removable screw terminal
Certification	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus, CB, NEC class 2, cCSAus Class I Div 2, GL, ABS	CE, cULus, cCSAus, CB, ATEX, cCSAus Class I Div 2, GL, ABS
List Price	\$51	\$66	\$86	\$86	\$124	\$159	\$130

<sup>1)</sup> Accessory: removable spring-type terminal, Article No. 6EP1971-5BA00 <sup>2)</sup> The maximum starting current is limited to the rated output current of one power supply  
Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# LOGO!Power








## Flat power supply for distribution boards

In LOGO! 8 design									
									
Technical data	54 mm design				72 mm design				90 mm design
Output voltage / current	5 V/3 A	12 V/1.9 A	15 V/1.9 A	24 V/1.3 A NEC Class 2	5 V/6.3 A	12 V/4.5 A	15 V/4 A	24 V/2.5 A NEC Class 2	24 V/4 A
Article No.	6EP1311-1SH03	6EP1321-1SH03	6EP1351-1SH03	6EP1331-1SH03	6EP1311-1SH13	6EP1322-1SH03	6EP1352-1SH03	6EP1332-1SH43	6EP1332-1SH52
Rated input voltage – Range	100–240 V AC 85...264 V AC/ 110...300 V DC				100–240 V A 85...264 V AC/ 110...300 V DC				100–240 V AC 85...264 V AC/ 110...300 V DC
Mains buffering	> 40 ms (at 187 V)				> 40 ms (at 187 V)				> 40 ms (at 187 V)
Rated line frequency	50/60 Hz				50/60 Hz				50/60 Hz
Rated input current – Inrush current (25 °C)	0.36–0.22 A < 26 A	0.53–0.30 A < 25 A	0.63–0.33 A < 25 A	0.70–0.35 A < 25 A	0.71–0.37 A < 50 A	1.13–0.61 A < 55 A	1.24–0.68 A < 55 A	1.22–0.66 A < 46 A	1.95–0.97 A < 30 A
– Recommended miniature circuit breaker	10 A characteristic C resp. 16 A characteristic B				10 A characteristic C resp. 16 A characteristic B				10 A char. C resp. 16 A char. B
Rated output voltage – Tolerance – Setting range	5 V DC ± 3 % 4.6...5.4 V DC	12 V DC 10.5...16.1 V DC	15 V DC 10.5...16.1 V DC	24 V DC 22.2...26.4 V DC	5 V DC ± 3 % 4.6...5.4 V DC	12 V DC 10.5...16.1 V DC	15 V DC 10.5...16.1 V DC	24 V DC 22.2...26.4 V DC	24 V DC ± 3 % 22.2...26.4 V DC
Output current – rated value – Derating	3.0 A from +55 °C (2 %/K)	1.9 A from +55 °C (2 %/K)	1.9 A from +55 °C (2 %/K)	1.3 A from +55 °C (2 %/K)	6.3 A from +55 °C (2 %/K)	4.5 A from +55 °C (2 %/K)	4.0 A from +55 °C (2 %/K)	2.5 A from +55 °C (2 %/K)	4.0 A from +55 °C (2 %/K)
Efficiency at rated values, approx.	77 %	80 %	81 %	85 %	83 %	85 %	85 %	88 %	89 %
No-load loss	< 1.5 W	< 1.8 W	< 2 W	< 2 W	< 1.5 W	< 1.9 W	< 2.3 W	< 1.8 W	< 2 W
Signaling contact "DC o. k."	No	No	No	No	No	No	No	No	No
Parallel switching	Yes				Yes				Yes
Electronic short-circuit protection	Yes, constant current				Yes, constant current				Yes, constant current
Radio interference suppression (EN 55022)	Class B				Class B				Class B
Supply harmonics limitation (EN 61000-3-2)	Not applicable				Not applicable				Yes
Degree of protection (EN 60529)	IP20				IP20				IP20
Ambient temperature	–20... +70 °C				–20... +70 °C				–20... +70 °C
Dimensions (WxHxD) in mm	54 x 90 x 55				72 x 90 x 55				90 x 90 x 55
Weight approx.	0.17 kg				0.25 kg				0.34 kg
Certification	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, SEMI F47, NEC Class 2, cCSAus Class I Div 2, GL, ABS, DNV, BV, LRS	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, cC- SAus Class I Div 2, GL, ABS	CE, cULus, CB, FM, ATEX, SEMI F47, NEC Class2, cCSAus Class I Div 2, GL, ABS, DNV, BV, LRS	CE, cULus, CB, FM, ATEX, SEMI F47, cC- SAus Class I Div 2, GL, ABS, DNV, BV, LRS
List Price	\$90	\$90	\$90	\$64	\$119	\$119	\$119	\$84	\$115

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP

## in SIMATIC design

							
Technical data	SITOP S7-1200 design	SITOP S7-300 design			SITOP S7-1500 design		SITOP ET200pro design
Output voltage / curr., type	24 V/2.5 A, PM1207	24 V/2 A, PS307	24 V/5 A, PS307	24 V/10 A, PS307	24 V/3 A, PM1507	24 V/8 A, PM1507	24 V/8 A, ET200pro PS
Article No.	6EP1332-1SH71	6ES7307-1BA01-0AA0	6ES7307-1EA01-0AA0	6ES7307-1KA02-0AA0	6EP1332-4BA00	6EP1333-4BA00	6ES7148-4PC00-0HA0
Rated input voltage	120/230 V AC automatic range selection	120/230 V AC automatic range selection	120/230 V AC automatic range selection	120/230 V AC automatic range selection	120/230 V AC automatic range selection	120/230 V AC automatic range selection	380–480 V 3 AC
– Range	85...132/176...264 V AC	85...132/170...264 V AC	85...132/170...264 V AC	85...132/170...264 V AC	85...132/176...264 V AC	85...132/176...264 V AC	340...550 V 3 AC
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	3 ms (at 400 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	1.2/0.67 A	0.9/0.5 A	2.3/1.2 A	4.2/1.9 A	1.4 A/0.8 A	3.7 A/1.7 A	1 A
– Inrush current (25 °C)	< 13 A	< 22 A	< 20 A	< 55 A	< 23 A	< 67 A	< 40 A
– Recommended miniature circuit breaker	16 A charact. B, 10 A charact. C	3 A charact. C	6 A charact. C	10 A charact. C	from 6 A charact. C, from 10 A charact. B	from 10 A charact. C, from 16 A charact. B	3RV2021-4NA10
Rated output voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %	– 5 %/+3 %
– Setting range	–	–	–	–	–	–	–
– On/off switch	No	Yes	Yes	Yes	Yes	Yes	No
Rated output current	2.5 A	2 A	5 A	10 A	3 A	8 A	8 A
– Overload characteristics (extra power for 5 s/min)	–	–	–	–	4.5 A	12 A	–
Efficiency at rated values, approx.	83 %	84 %	87 %	90 %	87 %	90 %	88 %
Signaling contact "DC o. k."	No	No	No	No	No	No	Yes, and for overheating
Parallel switching	Yes	Yes	Yes	Yes	Yes	Yes	No
Electr. short-circuit protection	Yes, constant current char.	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart
Radio suppression level (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B	EN 61000-6-4 (Class A)
Supply harmonics limitation (EN 61000-3-2)	Not applicable	Not applicable	Yes	Yes	Not applicable	Yes	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP67, UL: encl. type 5 indoor
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	–25°C...+55°C
Installation	DIN rail or wall mounting	Can be mounted on S7 rail. Mounting adapter for DIN rail 35x15 mm: 6EP1971-1BA00			on S7-1500 system carrier	on S7-1500 system carrier	Screw mounting, e.g., on SIMATIC ET 200pro system rail
Mass (W x H x D) in mm	70 x 100 x 75	40 x 125 x 120	60 x 125 x 120	80 x 125 x 120	50 x 147 x 135	75 x 147 x 135	310 x 135,5 w/o connector x90
Weight approx.	0.3 kg	0.4 kg	0.6 kg	0.8 kg	0.45 kg	0.74 kg	2.8 kg
Certification	CE, cULus, CB, FM, ATEX, cCSAus Class I Div 2, GL, ABS, DNV	CE, cULus, ATEX, cULus Class I Div 2, GL, ABS, DNV			CE, cULus, CB, ATEX, IECEx, cULus Class I Div 2, FM, GL, ABS, BV		CE, ULus508
List Price	\$123	\$182	\$245	\$315	\$186	\$265	\$625

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP lite

## Cost-effective basic power supply

				 new!
Technical data	SITOP lite			
Output voltage / current, type	24 V/2.5 A, PSU100L	24 V/5 A, PSU100L	24 V/10 A, PSU100L	24 V / 20 A, PSU100L
Article No.	6EP1332-1LB00	6EP1333-1LB00	6EP1334-1LB00	6EP1336-1LB00 <sup>1)</sup>
Rated input voltage – Range	120/230 V AC 93...132/187...264 V AC	120/230 V AC 93...132/187...264 V AC	120 / 230 V AC 93...132/187...264 V AC	100-230 V AC 85...264 V /DC 88...370V AC
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current – Inrush current (25 °C)	1.1/0.65 A < 27 A	2.1/1.15 A < 32 A	4.3 / 2.4 A < 65 A	5.55 / 2.35 A < 45 A
– Recommended miniature circuit breaker	3 A Characteristic C	6 A Characteristic C	10 A Characteristic C	10 A Characteristic C
Rated output voltage – Tolerance – Setting range	24 V DC ± 3 % 22.8...26.4 V DC	24 V DC ± 3 % 22.8...26.4 V DC	24 V DC ± 3 % 22.8...26.4 V DC	24 V DC ± 3 % 22.8...28 V DC
Rated output current – Derating	2.5 A from +45 °C (1.5 %/K)	5 A from +45 °C (1.5 %/K)	10 A from +45 °C (2 %/K)	20 A from +45 °C (2.5 %/K)
Efficiency at rated values, approx.	85 %	86 %	89 %	92 %
Signaling contact "DC o. k."	No	No	No	No
Parallel switching	Yes	Yes	Yes	Yes
Electronic short-circuit protection	Yes, constant current	Yes, constant current	Yes, constant current	Yes, constant current
Radio interference suppression (EN 55022)	Class A	Class A	Class A	Class A
Supply harmonics limitation (EN 61000-3-2)	Not applicable	no	No	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20
Ambient temperature	0... +60 °C	0... +60 °C	0... +60 °C	-25...+70 °C
Dimensions (WxHxD) in mm	32.5 x 125 x 120	50 x 125 x 120	70 x 125 x 120	110 x 125 x 125
Weight approx.	0.4 kg	0.5 kg	0.75 kg	1.8 kg
Certification	CE, cULus, CB	CE, cULus, CB	CE, cULus, CB	CE, cULus, CB
List Price	\$79	\$111	\$170	Provided at launch

<sup>1)</sup> Delivery start date: Fall 2016

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP smart

## Powerful standard power supply



Technical data	SITOP smart 1-phase					
Output voltage/current, type	24 V/2.5 A, PSU100S	24 V/5 A, PSU100S	12 V/7A, PSU100S	24 V/10 A, PSU100S	12 V/14 A, PSU100S	24 V/20 A, PSU100S
Article No.	6EP1332-2BA20	6EP1333-2BA20	6EP1322-2BA00	6EP1334-2BA20	6EP1323-2BA00	6EP1336-2BA10
Rated input voltage	120/230 V AC	120/230 V AC	120/230 V AC	120/230 V AC	120/230 V AC	120/230 V AC
– Rate	85...132/170...264 V AC, automatic range switching					
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 120/230 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	1.25 A/0.74 A	2.34 A/1.36 A	1.73 A/0.99 A	4.49 A/1.91 A	3.24 A/1.41 A	7.5/3.5 A
– Inrush current (25 °C)	< 33	< 40 A	< 45 A	< 60 A	< 60 A	< 11 A
– Recommended miniature circuit breaker	from 3 A, characteristic C	from 6 A, characteristic C	from 6 A, characteristic C	from 10 A, characteristic C	from 10 A, characteristic C	from 10 A, characteristic C
Rated output voltage	24 V DC	24 V DC	12 V DC	24 V DC	12 V DC	24 V DC
– Tolerance	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %
– Setting range	22.8...28 V DC	22.8...28 V DC	11.5...15.5 V DC	22.8...28 V DC	11.5...15.5 V DC	22.8...28 V DC
Rated output current	2.5 A	5 A	7 A	10 A	14 A	20 A
– Permanently up to +45 °C	3 A	6 A	7 A	12 A	14 A	24 A
– Overload behavior (extra power for 5 s/min)	3.75 A	7.5 A	10.5 A	15 A	21 A	30 A
– Derating	from +60 °C (3 %/ K)	from +60 °C (3 %/ K)	from +55 °C (5 %/ K)	from +60 °C (3 %/ K)	from +55 °C (5 %/ K)	from +60 °C (5 %/K)
Efficiency at rated values, approx.	85 %	88 %	84 %	90 %	87 %	90 %
Signaling contact "DC o. k."	Yes	Yes	Yes	Yes	Yes	Yes
Parallel switching	Yes	Yes	Yes	Yes	Yes	Yes
Electronic short-circuit protection	Yes, constant current	Yes, constant current	Yes, constant current	Yes, constant current	Yes, constant current	Yes, restart
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Not applicable	Yes	Yes	Yes	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20
Ambient temperature	–25...+70 °C	–25...+70 °C	–25...+70 °C	–25...+70 °C	–25...+70 °C	0...+70 °C (–25...+70 °C) <sup>1)</sup>
Dimensions (WxHxD) in mm	32.5 x 125 x 120	50 x 125 x 120	50 x 125 x 120	70 x 125 x 120	70 x 125 x 120	115 x 145 x 150
Weight approx.	0.32 kg	0.5 kg	0.5 kg	0.8 kg	0.8 kg	2.4 kg
Certification	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, BV	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, BV	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, BV	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL
List Price	\$110	\$184	\$205	\$265	\$295	\$375

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)



new!	new!		
			
SITOP smart 3-phase			
<b>24 V/5 A, PSU300S</b>	<b>24 V/10 A, PSU300S</b>	<b>24 V/20 A, PSU300S</b>	<b>24 V/40 A, PSU300S</b>
6EP1433-2BA20	6EP1434-2BA20	6EP1436-2BA10	6EP1437-2BA20
400-500 V 3 AC	400 – 500 V 3 AC	400 – 500 V 3 AC	400 – 500 V 3 AC
340 ... 550 V 3 AC	340...550 V 3 AC	340...550 V 3 AC	340...550 V 3 AC
> 6 ms (at 400 V)	> 6 ms (at 400 V)	> 6 ms (at 400 V)	> 6 ms (at 400 V)
50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
0.45 - 0.4 A < 40 A 6 – 16 A charact. C 3-ph. coupled or 3 RV2011-1DA10 or 3 RV2711-1DD10	0.7 – 0.6 A < 50 A 6 – 16 A charact. C 3-ph. coupled or 3 RV2011-1DA10 or 3 RV2711-1DD10	1.2 – 1.0 A < 36 A From 6 – 16 A charact. C 3-ph. coupled or 3 RV2011-1DA10 or 3 RV2711-1DD10	2,0 – 1,5 A < 60 A From 10 – 16 A charact. C 3-ph. coupled or 3 RV2011-1DA10 or 3 RV2711-1DD10
24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28 V DC
5 A 6 A 7.5 A	10 A 12 A 15 A	20 A 24 A 30 A	40 A 48 A 60 A
from +60 °C (3 %/ K)	from +60 °C (3%/K)	from +60 °C (5%/K)	from +60 °C (2.5%/K)
89 %	91 %	91 %	91.5 %
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
Yes, restart	Yes, restart	Yes, restart	Yes, restart
Class B	Class B	Class B	Class B
Yes	Yes	Yes	Yes
IP20	IP20	IP20	IP20
-25...+70 °C	-25...+70 °C	0...+70 °C (–25 ... +70 °C)	0...+70 °C
50 x 125 x 120	70 x 125 x 120	90 x 145 x 150	150 x 145 x 150
0.43 kg	0.67 kg	1.6 kg	3.7 kg
CE, cULus, CB, ATEX, UL Class I Div 2, IECEX, GL	CE, cULus, CB, ATEX, UL Class I Div 2, IECEX, GL	CE, cULus, CB, ATEX, cCSAus Class I Div 2, GL, IECEX	CE, cULus, CB, ATEX , cCSAus Class I Div 2, GL, IECEX
\$255	\$330	\$370	\$580

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP modular

## Technology power supply for demanding solutions

					
	new!				
Technical data	SITOP modular 1-phase				SITOP modular 1-phase and 2-phase <sup>1)</sup>
Output voltage / current, type	24 V/5 A, PSU8200	24 V/ 10 A, PSU8200	24 V/20 A, PSU8200	24 V/ 40 A, PSU8200	24 V/5 A, PSU200M
Article No.	6EP3333-8SB00-0AY0	6EP3334-8SB00-0AY0	6EP1336-3BA10	6EP3337-8SB00-0AY0	6EP1333-3BA10
Rated input voltage – Range	120 – 230 V AC 85...132 V/170...264 V AC, automatic range switching		120 – 230 V AC 85...275 V AC or 88...350 V DC	120/230V AC 85...132/170...264 V AC, automatic range switching	120 – 230/230 – 500 V AC 85...264/176...550 V AC
Mains buffering	>35 ms (at 120/230 V)	>35 ms (at 120/230 V)	> 20 ms (at 120/230 V)	> 25 ms (at Vin = 230 V)	> 25 ms (at 120/230 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current – Inrush current (25 °C) – Recommended miniature circuit breaker	2.1/1.2 A < 10 A 6 A charact. C or 3RV1021-1xA10	4/1.9 A < 10 A 10 A charact. C or 3RV1021-1xA10	4.6 – 2.5 A < 20 A 10 A charact. C or 3RV1021-1xA10	15/9 A < 60 A 16 A charact. C	2.2 – 1.2/1.2 – 0.61 A < 35 A 6 A charact. C or 3RV2011-1xA10
Rated output voltage – Tolerance – Setting range	24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28.8 V DC
Rated output current	5 A	10 A	20 A	40 A	5 A
– Overload behavior (power boost for 25 ms)	15 A	30 A	60 A	120 A	15 A
– Overload behavior (extra power for 5 s/min)	7.5 A (Extra Power for 5 s/min)	15 A (Extra Power for 5 s/min)	30 A (Extra Power for 5 s/min)	60 A	
– Derating	—	from +60 °C (2 %/K)	from +60 °C (3 %/K)	from +60 °C (3 %/K)	from +60 °C (2 %/K)
Efficiency at rated values, approx.	93 %	94 %	93 %	92 %	88 %
Signaling contact "DC o.k."	Yes	Yes	Yes	Yes	Yes
Parallel switching	Yes, output characteristic can be switched to parallel operation				
Electronic short-circuit protection	Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current	Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current	Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current	Yes, constant current characteristic approx. 41 A or latching shutdown	Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B	Class B
Supply harmonics limitation	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	-	Yes (EN 61000-3-2)
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20
Ambient temperature	–25...+70 °C	–25...+70 °C	–25...+70 °C	0...+70 °C	–25...+70 °C
Dimensions (WxHxD) in mm	45 x 125 x 125	55 x 125 x 125	90 x 125 x 125	145 x 145 x 150	70 x 125 x 121
Weight approx.	0.8 kg	1 kg	1.5 kg	3.1 kg	0.6 kg
Certification	CE, cULus, ATEX, IECEx, cCSAus Class I Div 2, SEMI F47 <sup>2)</sup> , GL, ABS		CE, cULus, ATEX, IECEx, UL Class I Div 2, GL, ABS	CE, cULus, ATEX, IECEx, cCSAus, cULus Class1, Div. 2, GL, ABS in process	CE, cULus, ATEX, IECEx, SEMI F47 <sup>2)</sup> , GL, ABS, UL Class I Div 2
List Price	\$215	\$295	\$480	\$640	\$225

<sup>1)</sup> Connection to two phases of a three-phase supply system <sup>2)</sup> At input voltage 208 to 230 V AC <sup>3)</sup> In conjunction with two buffer modules  
Specifications at rated input voltage and ambient temperature at +25 °C (unless otherwise specified)

			new!		
					
SITOP modular 1-phase and 2-phase <sup>1)</sup>	SITOP modular 3-phase		SITOP modular 3-phase, 36 V	SITOP modular 3-phase, 48 V	
<b>24 V/10 A, PSU200M</b>	<b>24 V/20 A, PSU8200</b>	<b>24 V/40 A, PSU8200</b>	<b>36 V/13 A, PSU8200</b>	<b>48 V/10 A, PSU300M</b>	<b>48 V/20 A, PSU300M</b>
6EP1334-3BA10	6EP3436-8SB00-0AY0	6EP1437-3BA10	6EP3446-8SB10-0AY0	6EP1456-3BA00	6EP1457-3BA00
120 – 230/230 – 500 V AC 85...264/176...550 V AC	400 – 500 V 3 AC 320...575 V 3 AC	400 – 500 V 3 AC 320...575 V 3 AC	400–500 V 3 AC 320...575 V 3 AC	400 – 500 V 3 AC 320...575 V 3 AC	400 – 500 V 3 AC 320...550 V 3 AC, start-up from 340 V
> 25 ms (at 120/230 V)	> 15 ms (at 400 V)	> 15 ms (at 400 V)	> 15 ms (at 400 V)	> 15 ms (at 400 V)	> 6 ms (at 400 V)
50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
4.4 – 2.4/2.4 – 1.1 A < 35 A 6 A charact. C or 3RV2011-1xA10	1.2 – 1.0 A < 18 A 6 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	2.6 – 2.1 A < 56 A 10 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	1.2–1.0 A < 18 A 6 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	1.2 – 1.0 A < 18 A 6 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	2.2 A (with 400 V) < 70 A 10 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10
24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC	36 V DC ± 3 % 32...40 V DC	48 V DC ± 3 % 42...56 V DC	48 V DC ± 3 % 42...56 V DC
10 A 30 A	20 A 60 A	40 A 120 A	13 A 39 A	10 A 23 A	20 A 60 A
	30 A (Extra Power for 5 s/min)	60 A (Extra Power for 5 s/min)	19.5 A (Extra Power for 5 s/min)	15 A (Extra Power for 5 s/min)	
from +60 °C (2 %/K)	from +60 °C (3 %/K)	from +60 °C (3.8 %/K)	from +60 °C (3 %/K)	from +60 °C (3 %/K)	
91 %	94 %	93 %	94 %	93 %	90 %
Yes	Yes	Yes	Yes	Yes	No, via signaling contact module (6EP1961-3BA10)
Yes, output characteristic can be switched to parallel operation					
Yes, constant current or latching shutdown selectable. Constant current: approx. 1.15 x rated output current					
<b>Class B</b>	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>
Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)	Yes (EN 61000-3-2)
IP20	IP20	IP20	IP20	IP20	IP20
–25...+70 °C	–25...+70 °C	–25...+70 °C	–10...+70 °C	–10...+70 °C	0...+60 °C
70 x 125 x 121	70 x 125 x 125	150 x 125 x 150	70 x 125 x 125	70 x 125 x 125	240 x 125 x 125
1.4 kg	1.2 kg	3.4 kg	1.2 kg	1.2 kg	3.2 kg
CE, cULus, ATEX, IECEx, SEMI F47 <sup>2)</sup> , GL, ABS, UL Class I Div 2	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, SEMI F47, GL, ABS	CE; cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, SEMI F47, GL, ABS	CE; cULus, CB, cCSAus Class I Div 2, GL, ABS	CE; cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS	CE, UL, CSA, GL, ABS
\$340	\$420	\$660	\$475	\$475	\$720

<sup>1)</sup> Connection to two phases of a three-phase supply system    <sup>2)</sup> At input voltage 208 to 230 V AC  
Specifications at rated input voltage and ambient temperature at +25 °C (unless otherwise specified)

# SITOP modular

## The first power supply system with integration in TIA – SITOP PSU8600

### Complete system integration

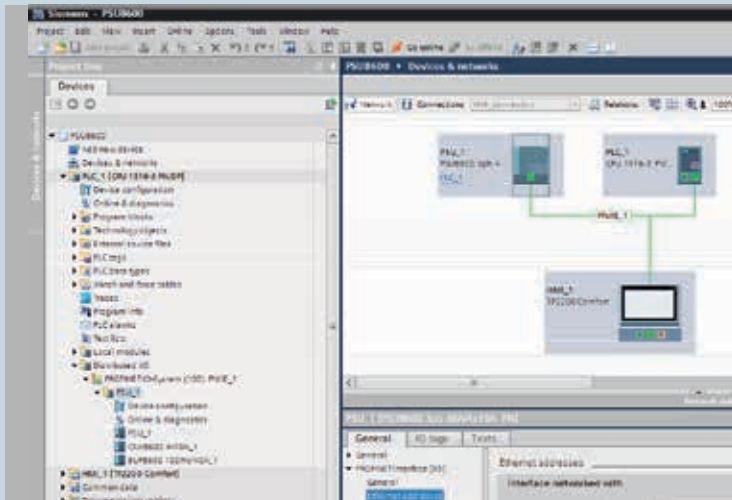
SITOP PSU8600 is the first power supply that can be completely integrated in TIA. Advantages include convenient engineering in the TIA Portal, preproduced function blocks for SIMATIC S7 user programs, as well as free WinCC faceplates. An integrated Web server makes remote diagnostics possible, and two integrated PROFINET ports are available for comprehensive data exchange.



### A system with maximum reliability

Every output is constantly monitored, allowing unusual overloads to be detected early. In the event of a fault, the affected output is selectively switched off. Expansion modules can be used to split the DC voltage to as many as 20 outputs. Buffer modules can be added to protect against power failures; versions with double-layer capacitors provide many seconds of buffer time. Comprehensive diagnostic information for preventive maintenance is available through PROFINET and can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC.

### Efficiency across the board

With its narrow width and integrated overload monitoring, the basic device conserves space in the control cabinet. The voltage of every output can be set individually, which cuts down on the number of additional power supply units which would otherwise be needed for 5 V or 12 V loads. By means of the System Clip Link, users can individually configure the system with no additional wiring effort. SITOP PSU8600 also supports energy management in plants or machines, from collecting power data of the individual outputs and switching on and off individual outputs via PROFenergy to direct integration in power management systems.



	new!	new!
		
<b>Technical Data</b>	<b>SITOP modular 3-phase basic unit, 1 output</b>	
<b>Output voltage / current, type</b>	<b>24 V/20 A, PSU8600</b>	<b>24 V/40 A, PSU8600</b>
Article No.	6EP3436-8SB00-2AY0	6EP3437-8SB00-2AY0
Rated input voltage	400 – 500 V 3 AC	400 – 500 V 3 AC
– Range	320...575 V 3 AC	320...575 V 3 AC
Mains buffering	> 15 ms (at 400 V), extendable via buffer modules	
Rated line frequency	50/60 Hz	50/60 Hz
Rated input current	1.4 – 1.1 A	2.75 – 2.2 A
– Inrush current (25 °C)	14 A	14 A
– Recommended miniature circuit breaker	6-16 A charact. C 3-ph. coupled or 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10	
Rated output voltage	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %
– Setting range	5...28 V DC	5...28 V DC
Rated output current	20 A, one output, number can be increased via expansion modules	40 A, one output, number can be increased via expansion modules
– Overload behavior (Extra Power)	30 A for 5 s/min	60 A for 5 s/min
– Derating	from +50 °C (2.5%/K). No derating in connection with expansion module and total load of basic device's outputs up to 240 W (20 A devices) or up to 480 W (40 A devices)	
– Switching threshold adjustment range	2...20 A	4...40 A
– Shutdown behavior per output	Load current 101...149% of the setting: shutdown after 5 s; load current 150% of the setting: shutdown after 200 ms	
Efficiency at rated values, approx.	93 %	94 %
Signaling contact "DC o. k."	Yes	Yes
Interface	Industrial Ethernet/PROFINET with two ports	
Parallel switching	Yes	Yes
Radio interference suppression (EN 55022)	Class B	Class B
Line harmonics limitation (EN 61000-3-2)	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20
Ambient temperature	–25...+60 °C	–25...+60 °C
Dimensions (WxHxD) in mm	80 x 125 x 150	125 x 125 x 150
Weight approx.	1.8 kg	2.65 kg
Certifications	CE, cULus, IECEx, ATEX; CB, cCSAus Class I Div 2, SEMI F47, GL, ABS	
Add-on modules	up to four CNX8600 expansion modules, up to two BUF8600 buffer modules	
List Price	\$790	\$1,040

Specifications at rated input voltage and ambient temperature at +25 °C (unless otherwise specified)



# SITOP modular

## The first power supply system with integration in TIA – SITOP PSU8600

new!



The power supply system can be fully integrated in TIA via the Industrial Ethernet/PROFINET interface (2 ports) on the PSU8600 basic unit. This offers comprehensive setting and diagnostic options in TIA Portal or via Step 7:



Technical Data	SITOP modular 3-phase basic unit, 4 outputs	
<b>Output voltage / current, type</b>	<b>24 V/20 A/4x5 A, PSU8600</b>	<b>24 V/40 A/4x10 A, PSU8600</b>
Article No.	6EP3436-8MB00-2CY0 <sup>1)</sup>	6EP3437-8MB00-2CY0
Rated input voltage	400–500 V 3 AC	400–500 V 3 AC
– Range	320...575 V 3 AC	320...575 V 3 AC
Mains buffering	> 15 ms (at 400 V), extendable via buffer modules	
Rated line frequency	50/60 Hz	50/60 Hz
Rated input current	1.4–1.1 A	2.75–2.2 A
– Inrush current (25 °C)	14 A	14 A
– Recommended miniature circuit breaker	6-16 A charact. C 3-ph. coupled or 3RV2011-1DA10 (setting 3 A) or 3RV2111-1DD10	
Rated output voltage	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %
– Setting range	5...28 V DC	5...28 V DC
Rated output current	20 A, 4 outputs at 5 A each, number can be increased via expansion modules	40 A, 4 outputs at 10 A each, number can be increased via expansion modules
– Overload behavior (Extra Power)	30 A for 5 s/min	60 A for 5 s/min
– Derating	from +50 °C (2.5%/K). No derating in conjunction with expansion module and total load on the output of the basic device up to 240 W (20 A devices) or up to 480 W (40 A devices)	
– Switching threshold adjustment range	0.5...5 A	0.5...10 A
– Shutdown behavior per output	101...149% of the setting: shutdown after 5 s; 150% of setting: shutdown after 200 ms	
Efficiency at rated values, approx.	93 %	94 %
Signaling contact "DC o. k."	Yes	Yes
Interface	Industrial Ethernet/PROFINET with two ports	
Parallel switching	Parallel connection output 1 with 2 or output 3 with 4 selectable via DIP switch	
Radio interference suppression (EN 55022)	Class B	Class B
Line harmonics limitation (EN 61000-3-2)	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20
Ambient temperature	–25...+60 °C	–25...+60 °C
Dimensions (WxHxD) in mm	100 x 125 x 150	125 x 125 x 150
Weight approx.	2.0 kg	2.65 kg
Certification	CE, cULus, IECEx, ATEX; CB, cCSAus Class I Div 2, SEMI F47, GL, ABS	CE, cULus, CB, IECEx, ATEX, cCSAus Class I Div 2, SEMI F47, GL, ABS
Add-on modules	up to four CNX8600 expansion modules, up to two BUF8600 buffer modules	
List Price	\$1,040	\$1,350




### Setting options:

- Switching on and off individual outputs for the direct control of loads or for saving energy, for example using the PROFinergy protocol
- Program-controlled changing of the output voltage of each output for the variable supply of loads, such as DC motors (e.g. in fans or belt drives)

### Diagnostic options:

- Early detection of dynamic, continuous, or more frequently occurring overload conditions with the help of up-to-date values
- Status message for outputs (on, off, overload)
- Outputs can be freely parameterized for preventive maintenance messages
- Detection and logging of short-term power and phase failures for the analysis of network quality
- Recording of power data (current, voltage) for each output to assess potential power savings
- Advance warning of system overload and overheating

		
Technical Data	Expansion module	
Typ	4 x 5 A, CNX8600	4 x 10 A, CNX8600
Article No.	6EP4436-8XB00-0CY0	6EP4437-8XB00-0CY0
Product/function description	Expansion module for PSU8600 basic devices for distribution of the direct current to another four load circuits and monitoring for overload; selective switch-off of defective circuits, switching threshold individually configurable. A total of four modules can be used in a group of systems. Data and power are transmitted via the System Clip Link connector.	
Rated output voltage	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %
– Setting range	5...28 V DC	
Rated output current	20 A/4 outputs of 5 A each	40 A/4 outputs of 10 A each
	Comment: The max. output capacity of the overall PSU8600 system cannot be increased via expansion modules	
– Switching threshold adjustment range	0.5...5 A	0.5...10 A
– Shutdown behavior per output	Load current 101...149% of the setting: shutdown after 5 s, load current 150% of the setting: shutdown after 200 ms	
Dimensions (WxHxD) in mm	60 x 125 x 150	60 x 125 x 150
Weight approx.	1.15 kg	1.15 kg
Certification	ATEX, cCSAus Class I Div 2, SEMI F47, GL; ABS	
List Price	\$370	\$410

				
Technical Data	Buffer module			
Typ	100 ms/40 A, BUF8600	300 ms/40 A, BUF8600	4 s/40 A, BUF8600	10 s/40 A, BUF8600
Article No.	6EP4297-8HB00-0XY0	6EP4297-8HB10-0XY0	6EP4293-8HB00-0XY0	6EP4295-8HB00-0XY0
Product/function description	Expansion module for PSU8600 basic devices for extending the outputs' buffer time during power failure. A total of two modules can be used in a group of systems. Data and power are transmitted via the System Clip Link connector.			
Energy storage	Electrolytic capacitors		Double-layer capacitors (Ultracaps)	
Buffer time with DC 24 V and load current				
	5 A	800 ms	2.4 s	40 s
	10 A	400 ms	1.2 s	20 s
	20 A	200 ms	600 ms	10 s
	40 A	100 ms	300 ms	4 s
Typical charging time	19 s	54 s	5 min	10 min
Max. power during buffer operation	60 A for 5 s/min	60 A for 5 s/min	40 A	60 A for 5 s/min
Status messages via 3-color LED	Normal operation, buffer operation, charging, error		Normal operation, buffer operation, charging, error	
Status messages via signal contact	-		Charging status >x%, buffer operation	
Status messages via PROFINET (basic unit)	Normal operation, buffer operation, charging, error		Normal operation, buffer operation, charging, error, charging status > x%,	
Additional functions			– Remote ON/OFF contact for deactivating buffering, e.g. when shutting down the plant to prevent unnecessary discharge.	
Dimensions (WxHxD) in mm	60 x 125 x 150	125 x 125 x 150	60 x 125 x 150	125 x 125 x 150
Weight approx.	1.33 kg	2.26 kg	1.25 kg	1.95 kg
Certifications	ATEX, cCSAus Class I Div 2, SEMI F47, GL; ABS		CE, cULus, IECEx, ATEX; CB, cCSAus Class I Div 2, SEMI F47, GL, ABS	
List Price	\$350	\$590	\$735	\$1,155

Specifications at rated input voltage and ambient temperature at +25 °C (unless otherwise specified)





# SITOP

## in special design, for special uses



Technical data	Wall/panel mounting						
Output voltage / curr., type	12 V/3 A PSU100D	24 V/2.1 A PSU100D	24 V/3.1 A PSU100D	24 V/4.1 A PSU100D	12 V/8.3 A PSU100D	24 V/6.2 A PSU100D	24 V/12.5 A PSU100D
Article No.	6EP1321-1LD00	6EP1331-1LD00	6EP1332-1LD00	6EP1332-1LD10	6EP1322-1LD00	6EP1333-1LD00	6EP1334-1LD00
Rated input voltage	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC	100 – 240 V AC
– Range	85...264 V AC	85...264 V AC	85...264 V AC	85...264 V AC	85...264 V AC	85...264 V AC	85...264 V AC
Mains buffering	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	0.75 – 0.5 A	1.1 – 0.7 A	1.5 – 1.0 A	2.0 – 1.1 A	2.0 – 1.1 A	3.1 – 2.0 A	4.0 – 2.0 A
– Inrush current (25°C)	< 60 A	< 60 A	< 60 A	< 75 A	< 75 A	< 75 A	< 60 A
– Recommended miniature circuit breaker	10 A characteristic C, 16 A characteristic B						
Rated output voltage	12 V DC	12 V DC	12 V DC	24 V DC	12 V DC	24 V DC	24 V DC
– Tolerance	+/- 2 %	+/- 2 %	+/- 2 %	+/- 2 %	+/- 2 %	+/- 2 %	+/- 2 %
– Setting range	11...14 V DC	22...28 V DC	22...28 V DC	22...28 V DC	11...14 V DC	22...28 V DC	22...28 V DC
Output current – rated value	3 A	2.1 A	3.1 A	4.1 A	8.3 A	6.2 A	12.5 A
– Derating	from +50°C (2.5 %/K)	from +50°C (2.5 %/K)	from +50°C (2.5 %/K)	from +50°C (2.5 %/ K)	from +50°C (2,5 %/ K)	from +50°C (2,5 %/ K)	from +50°C (2,5 %/ K)
Efficiency at rated values, approx.	84 %	86 %	86 %	86 %	84 %	86 %	86 %
Signaling contact "DC o. k."	No	No	No	No	No	No	No
Parallel switching	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart	Yes, restart
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Not applicable	Not applicable	Yes	Yes	Yes	No	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Ambient temperature	–10°C...+70°C	–10°C...+70°C	–10°C...+70°C	–10°C...+70°C	–10°C...+70°C	–10°C...+70°C	–10°C...+70°C
Installation	Wall mounting, variable installation position						
Dimensions (WxHxD) in mm	97 x 98 x 38	97 x 128 x 38	97 x 128 x 38	97 x 158 x 38	97 x 158 x 38	97 x 178 x 38	105 x 199 x 41
Weight approx.	0.37 kg	0.35 kg	0.37 kg	0.50 kg	0.57 kg	0.55 kg	0.81 kg
Certification	CE, cULu, cURus	CE, cULus, cURus	CE, cULus, cURus	CE, cULus, cURus	CE, cULus, cURus	CE, cULus, cURus	CE, cULus, cURus
List Price	\$59	\$59	\$68	\$75	\$93	\$81	\$132

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

						
Technical data	DC/DC converter			High degree of protection		
Output voltage / current, type	24 V/20 A, PSU400M	24 V/2 A, PSU 400M	12V/2.5 A	24 V/5 A, PSU100P	24 V/8 A, PSU100P	24 V/ 8 A, ET200pro PS
Article No.	6EP1536-3AA00	6EP1732-0AA00	6EP1621-2BA00	6EP1333-7CA00	6EP1334-7CA00	6ES7148-4PC00-0HA0
Rated input voltage	600V DC	48...110V DC	24V DC	120/230 V AC (automatic range switching)		380 – 480 V 3 AC
– Range	300...900V DC, start-up from approx. 340V	38...121V DC	18.5...30.2V DC	85... 132 V/170... 264 V AC		340...550 V 3 AC
Mains buffering	–	5 ms; at Vin = 48V	> 5 ms	> 40 ms (at I <sub>Out rated</sub> )	> 40 ms (at I <sub>Out rated</sub> )	3 ms (at 400 V)
Rated line frequency	–	–	–	50/60 Hz	50/60 Hz	50/60Hz
Rated input current	0.85 A	1.2 A at 48V, 0.5 A at 110V	1.6 A	2.25 A/1.24 A	3.5 A/1.52 A	1 A
– Inrush current (25°C)	< 8 A	< 33 A	< 20A for 20ms	< 15 A	< 15 A	< 40A
– Recommended miniature circuit breaker	–	10 to 25 A charact. B or 6 to 25 A charact. C, suitable for DC	10A charact. B	from 6 A charact. C/B	from 6 A charact. C/B	3RV2021-4NA10
Rated output voltage	24 V DC	24 V DC	12 V DC	24 V DC	24 V DC	24V DC
– Tolerance	± 3 %	±1%	± 3 %	± 3%	± 3%	– 5 %/+3 %
– Setting range	24...28.8 V DC	23.5...26.5 V	12...14 V DC	–	–	–
Rated output current	20 A	2 A	2.5 A	5 A	8 A	8 A
– Overload behavior (Extra Power for 5 s/min)	30 A					
– Derating	from +60°C (5.5%/K), 300...400V DC, 820...900V DC					
Efficiency at rated values, approx.	95%	84%	83%	90 %	93 %	88%
Status signaling		–		LED green for “DC ok” and flashing red for “Overload/ short circuit.” Signal contact for “DC ok”		No
Parallel switching	Yes, output line switchable	Yes, 2 units	Yes, 2 units	Yes, 2 units	Yes, 2 units	No
Electronic short-circuit protection	Yes, constant current (ca. 1.15 x I <sub>Out rated</sub> ) or latching shutdown selectable	Yes, restart	Yes, constant current	Yes, restart	Yes, restart	Yes, restart
Radio suppression level (EN 55022)	Class A (emission)	Class B	Class B	Class B	Class B	EN 61000-6-4 (Class A)
Line harmonics limitation (EN 61000-3-2)	No	Not applicable	Yes	Yes	Yes	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP67, UL: enclosure type 4 indoor	IP67, UL: enclosure type 4 indoor	IP67, UL: encl. type 5 indoor
Ambient temperature	–25...+70 °C	0...+70°C	0...+60°C	-25...+60°C	-25...+60°C	–25...+55°C
Installation	DIN rail	DIN rail	DIN rail	Screw mounting	Screw mounting	Screw mounting, e.g., on SI-MATIC ET 200pro system rail
Dimensions (WxHxD) in mm	90 x 125 x 125	80 x 135 x 120	32.5 x 125 x 125	120 x 181 (w/o connector) x 60.5		310x135 (w/o connector) x 90
Weight approx.	1.2 kg	0.5 kg	0.32 kg	1.1 kg	1.3 kg	2.8 kg
Certification	CE, cULus, CB, GL	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, ULus508
List Price	\$580	\$400	\$250	\$545	\$670	\$625

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP

## in special design, for special uses

					
Technical data	two 15-V-outputs	flexible output 3 – 52 V	high vibration	flat design	
Output voltage / current, type	2 x 15 V/3.5 A, SITOP dual	3...52 V/10 A, SITOP flexi	24 V/10 A Vibration Resistant	24 V/5 A, flat design	24 V/10 A, flat design
Article No.	6EP1353-0AA00	6EP1353-2BA00	6EP1334-2AA01-0AB0	6EP1333-1AL12	6EP1334-1AL12
Rated input voltage	120 – 230 V AC	120/230 V AC	120/230 V AC	120/230 V AC	120/230 V AC
– Range	93 ... 264 V AC	85...132 V/170...264 V AC	85...132/170...264 V AC, set by means of selector switch on device	85...132/170...264 V AC	85...132/170...264 V AC
Mains buffering	> 10/40 ms (at 120/187 V)	> 10 ms (at 93/187 V)	20 ms; at Vin = 93/187 V	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	1.6/1.0 A	2.2/0.9 A	4.1 A/2.4 A	2.2/1.2 A	4/2.5 A
– Inrush current (25 °C)	< 30 A, < 3 ms	< 32 A	< 65 A	< 32 A	< 65 A
– Recommended miniature circuit breaker	10 A charact. C, 16 A charact. B	6 A charact. C	from 10 A, characteristic C	6 A charact. C	10 A charact. C
Rated output voltage	2 x 15 V DC	24 V DC	24 V DC	24 V DC	24 V DC
– Tolerance	± 3 %	± 1 %	± 3 %	± 1 %	± 1 %
– Setting range	14.5...17 V DC	3...52 V DC	22.8...28 V DC	22...29 V DC	22...29 V DC
Output current – rated value	2 x 3.5 A	2 – 10 A (max. 120 W)	10 A (12A to +45°C)	5 A	10 A
- Overload behavior (Extra power for 5 s/min)			12 A		
– Derating	from +45 °C (2 %/K)	–	–	–	–
Efficiency at rated values, approx.	80 %	84 % (at 24 V/5 A)	90 %	88 %	89 %
Status signaling	No	Yes, and current monitor signal 0 ... 2.5 V	–	No	No
Parallel switching	Yes	Yes	Yes	Yes	Yes
Electronic short-circuit protection	Yes, restart	Yes, constant current	Yes, constant current	Yes, restart	Yes, restart
Radio interference suppression (EN 55022)	Class A	Class B	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	No	Yes	–	No	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20
Ambient temperature	0 ...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C
Installation	DIN rail	DIN rail	Wallmount (vibration resistant)	DIN rail	DIN rail
Dimensions (WxHxD) in mm	75 x 125 x 125	75 x 125 x 125	70 x 125 x 125	160 x 130 x 60	160 x 130 x 60
Weight approx.	0.75 kg	0.9 kg	0.85 kg	0.6 kg	0.72 kg
Certification	CE, cULus	CE, cULus	CE, UL, CSA, Class I, cULus, CB, IEC	CE, cULus	CE, cULus
List Price	\$415	\$360	\$420	\$425	\$550

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

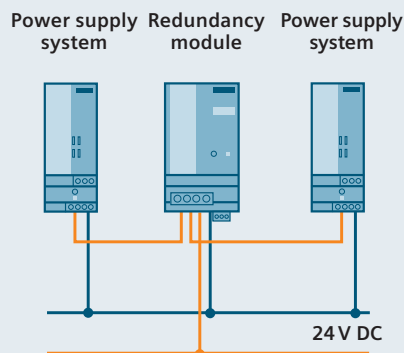


				
		new!	new!	
Technical data	narrow design	power supplies for charging batteries		
<b>Output voltage/current, type</b>	<b>24 V/5 A, PSU300E</b>	<b>12 V/20 A, PSU3800</b>	<b>24 V/17 A, PSU3800</b>	<b>24 V/30 A, PSU300B</b>
Article No.	6EP1433-0AA00	6EP3424-8UB00-0AY0	6EP3436-8UB00-0AY0	6EP1437-3BA20
Rated input voltage	400 V 3 AC	400 – 500 V 3 AC	400 – 500 V 3 AC	400 – 500 V 3 AC
– Range	320...480 V 3 AC	320...575 V 3 AC	320...575 V 3 AC	320...575 V 3 AC
Mains buffering	> 50 ms (at 400 V)	> 15 ms (at 400 V)	> 15 ms (at 400 V)	> 20 ms (at 400 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	0.36 A	0.7 – 0.6 A	1.2 – 1.0 A	1.6 – 1.3 A
– Inrush current (25 °C)	< 15 A	< 18 A	< 18 A	< 56 A
– Recommended miniature circuit breaker	6 – 10 A charact. C	6 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	6-16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	10 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10
Rated output voltage	24 V DC	12 V DC	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %	± 3 %	± 3 %
– Setting range	24...29 V DC	12...14 V DC	24...28.8 V DC	24...28.8 V DC
Rated output current	5 A	20 A	17 A	30 A
– Derating	–	–	from +60 °C (1.7%/K)	from +60 °C (1,7 %/K)
Efficiency at rated values, approx.	90 %	94 %	94 %	93 %
Status signaling	Yes	Yes	Yes	Yes
Parallel switching	No	Yes	Yes	Yes
Electronic short-circuit protection	Yes, restart	Yes, constant current or latching shutdown selectable		
Radio interference suppression (EN 55022)	Class A	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Yes	Yes	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20
Ambient temperature	0...+60 °C	–25 °C...+70 °C	–25...+70 °C	–25 °C...+70 °C
Installation	DIN rail	DIN rail	DIN rail	DIN rail
Dimensions (WxHxD) in mm	42 x 125 x 125	70 x 125 x 125	70 x 125 x 125	150 x 125 x 150
Weight approx.	0.6 kg	1.2 kg	1.2 kg	3.4 kg
Certification	CE, cULus	CE, cULus, ATEX (EX) II 3G Ex nA nC IIC T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4		CE, cULus
List Price	\$295	\$435	\$455	\$610

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

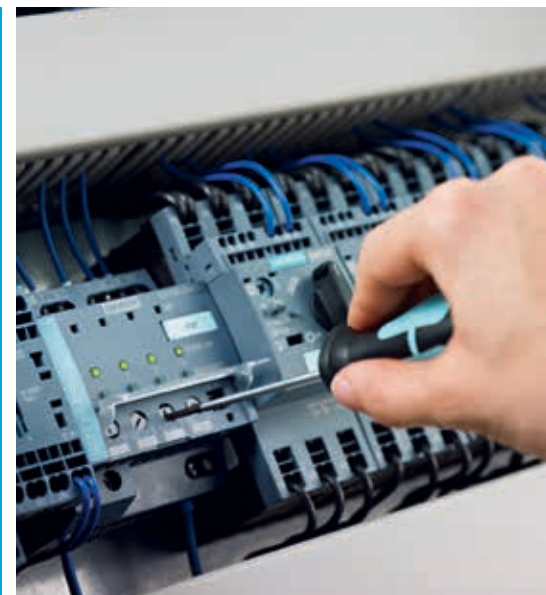


#### Configuration with redundancy module



#### Your benefits with the redundancy module:

- Highly secure 24-V supply thanks to a redundant design
- Reliable supply even when one power supply fails
- Compact redundancy modules for power supply units up to 40 A
- 24 V/NEC class2 redundancy module limited to 100 VA
- Diagnostics signals via LEDs and signaling contacts
- Adjustable switching threshold for LEDs and signaling contacts



## SITOP redundancy modules to reduce downtime with an inline back-up power supply

A reliable power supply system is the basis for any production process or plant. So it is only makes sense to not only carefully select the power supply unit, but protect the 24-V supply against faults in the input or output circuit. SITOP offers suitable add-on modules for this purpose.

#### Redundancy modules for security against failure of power supply units

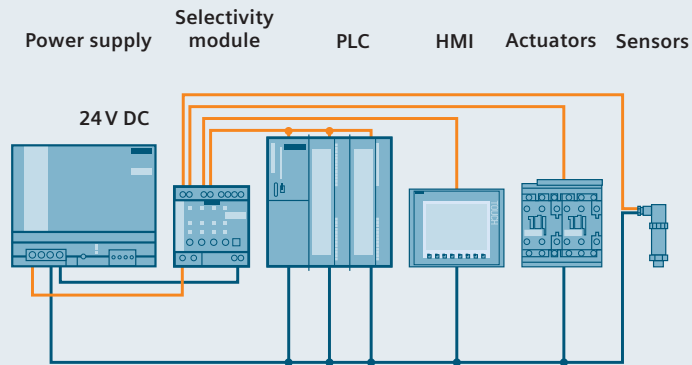
SITOP redundancy modules provide additional protection against failures of the 24-V supply. Because the two power supplies are decoupled via a redundancy module, one failed power supply unit has no effect on the 24-V supply. The redundancy module continually monitors the feeding power supply units and when one unit fails, the other unit automatically takes over the feed, thereby safeguarding the 24-V supply. In addition, a signal is sent via a signaling contact that can be evaluated by a controller, PC, or control system.

#### Redundancy modules

Redundant design of the power supply system



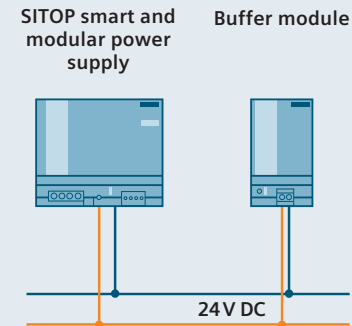
### Configuration with selectivity module



### Your benefits with the selectivity module:

- Protection against overloads and short circuits in the 24-V circuit
- Safe tripping of circuit breakers regardless of line lengths or cross-sections
- Four load feeders per module
- Variants with an adjustable output current variable from 0.5 to 3 A or from 3 to 10 A
- Possibility of sequential startup of feeders to reduce inrush current
- Diagnosis via a common signaling contact or single-channel signal
- Evaluation via free SIMATIC S7 or SIMOTION function block for modules with single-channel signaling

### Configuration with buffer module



### Your benefits with the buffer module:

- Inexpensive protection against power failure up to max. 10 seconds
- Support of power supply unit for temporarily increased power requirements
- High load current up to 40 A

### Selectivity modules to monitor 24-V feeders

In today's plants, all 24-V loads receive power from one shared, regulated, switched-mode power supply. To prevent faults in one load from disabling the entire plant, the 24-V supply circuit is divided into individual feeders and, in the case of a fault, selectively disconnected. The selectivity module monitors the current for each feeder and reliably prevents supply voltage failure, thus avoiding total failure of the plant. Thanks to channel-specific signaling and evaluation by means of SIMATIC S7 and SIMOTION function blocks, fault detection is extremely fast and downtimes are reduced.

### Selectivity modules

Electronic monitoring of 24-V feeders



### Buffer module bridges brief power failures

Power failures usually last only for fractions of a second – however, they can cause time- and cost-intensive damage to sensitive production areas. Used in combination with SITOP smart and modular power supply units, the buffer module bridges short-duration voltage dips with its electrolytic capacitors and reliably preserves interruption-free operation.

### Buffer module

Bridging for up to a period of seconds






## SITOP expansion modules to increase system availability



Technical data	Redundancy		
<b>SITOP</b>	<b>SITOP PSE202U redundancy module</b>	<b>NEC Class 2</b>	
Article No.	6EP1964-2BA00	6EP1962-2BA00	6EP1961-3BA21
Rated input voltage – Range	24 V DC 19...29 V DC	24 V DC 19...29 V DC	24 V DC 24...28.8 V DC
Brief description of product/function	Module for redundancy mode. Floating relay contact and green LED for signaling “Infeed 1 and 2 o.k.”, switching threshold adjustable between 20 to 25 V DC.		
	Decoupling of two 24-V power supplies up to 5 A or one 10 A power supply per redundancy module.	Decoupling and limitation of the output to Class 2 limit (100 V A) of two 24-V power supplies 5 to 40 A.	Decoupling of two 24-V power supplies 5 A to 20 A or one 40 A power supply per redundancy module.
Rated output current – Setting range	10 A (total output current)	3.5 A <sup>1)</sup>	40 A (total output current)
Efficiency at rated values, approx.	97 %	95 %	97 %
Parallel switching	No	No	No
Electronic short-circuit protection	No	No	No
Radio interference suppression (EN 55022)	Class B	Class B	Class B
Degree of protection (EN 60529)	IP20	IP20	IP20
Ambient temperature	–20...+70 °C	–20...+70 °C	0...+60 °C
Dimensions (WxHxD) in mm	30 x 80 x 100	30 x 80 x 100	70 x 125 x 125
Weight approx.	0.125 kg	0.125 kg	0.5 kg
Certification	CE, cULus	CE, cULus, NEC Class 2	CE, cULus, cCSAus Class I Div 2, ATEX, IECEx, GL, ABS
List Price	\$78	\$165	\$150

<sup>1)</sup> Max. 8 A summation current in fault case in accordance with NEC Class 2

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

					
Technical data	Monitoring				Mains buffering
SITOP	SITOP PSE200U selectivity module with common signaling contact		SITOP PSE200U selectivity module with single channel signaling		Buffer module <sup>1)</sup> SITOP PSE201U
Article No.	6EP1961-2BA11	6EP1961-2BA21	6EP1961-2BA31	6EP1961-2BA41	6EP1961-3BA01
Rated input voltage – Range	24 V DC 22...30 V DC				24 V DC 24...28.8 V DC
Brief description of product/ function	Module for distributing the 24 V supply over up to four load circuits and their monitoring for overload; selective shutdown of faulty load circuits, rated current individually adjustable; universal use for all power supplies.  Individual load circuits can be switched on sequentially. Status indication via 3-color LED per channel; remote reset with 24 V signal and reset via pushbutton per channel; common signaling contact.		Individual load circuits can be switched on sequentially. Status indication via 3-color LED per channel; remote reset with 24 V signal and reset via pushbutton per channel; single channel signaling for channel-specific analysis via SIMATIC S7 or SIMOTION function block.		Buffer module for mains buffering; parallel connection at output of 24-V SITOP modular and SITOP smart power supplies; buffering time 200 ms at 40 A to 1.6 s at 5 A load current; multiplication possible through parallel connection; maximum buffering time 10 s.
Rated output current	4 x 3 A	4 x 10 A	4 x 3 A	4 x 10 A	40 A
– Setting range	0.5...3 A	3...10 A	0.5...3 A	3...10 A	
Efficiency at rated values, approx.	97 %	99 %	97 %	99 %	Not applicable
Parallel switching	No				Yes
Electronic short-circuit protection	Yes				Yes
Radio interference suppression (EN 55022)	Class B				Class B
Degree of protection (EN 60529)	IP20				IP20
Ambient temperature	0...+60 °C				0...+60 °C
Dimensions (WxHxD) in mm	72 x 80 x 72				70 x 125 x 125
Weight approx.	0.2 kg				1.2 kg
Certification	CE, UL, cURus, CB, cCSAus Class I Div 2, ATEX, IECEx, GL, ABS		CE, UL, cURus, cCSAus Class I Div 2, ATEX, IECEx, GL, ABS		CE, UL, CSA, ATEX, IECEx UL Class I Div 2, GL, ABS
List Price	\$183	\$205	\$183	\$205	\$265

<sup>1)</sup> Can only be combined with SITOP modular power supply (except PSU8600) and SITOP smart 24 V DC (except 6EP1 336-2BA10)



SITOP module for 24V buffering	Buffer module	UPS500	UPS1600
<b>Energy buffers</b>			
24-V buffering	Max. 10 s	Minutes	Hours
Storage medium	Electrolytic capacitors	Double-layer capacitors	Lead batteries
Life (also temperature-dependent)	++	++	+
Functional range (temperature, degree of protection, ventilation)	+	++	•
<b>UPS module/electronics</b>			
Max. rated output current	40 A	15 A	40 A
Overload capacity	++	+	++
Interfaces		I/O, serial, USB	I/O, USB, Ethernet/PROFINET
Operating and diagnostic information via			
– Signaling contacts		•	•
– OPC server		•	•
– Web server			•
– S7 function modules, WinCC faceplates			•
Downloading of multiple PCs/PLCs			•
Start from battery without supply voltage (island operation)			•
Engineering via			
– Software-tool (PC)		•	•
– TIA Portal			•

SITOP ensures reliable 24-V supply – even when the power fails

Power outages can bring a plant to a standstill, with high costs in terms of both time and money. The SITOP DC UPS provides perfect protection against unexpected downtimes and so guarantees uninterrupted plant operation. SITOP add-on modules provide buffering solutions that range from seconds to hours.

#### SITOP Selection Tool for fast and easy selection

The SITOP Selection tool offers detailed selection assistance based on criteria such as buffering time, load current, peak current, and switch-on threshold. The DC UPS can also be selected and compared with just a few clicks of the mouse, just as easily as the power supply. You can export your selection directly to the Siemens Industry Mall. All required CAD data, circuit diagram macros, and other product information for simple, quick configuration can be called up in the CAX download manager.



#### Your benefits with the SITOP UPS500:

- Bridging for up to a period of minutes, depending on the load current and DC UPS design
- Totally maintenance-free double-layer capacitors
- Short charging times
- Long life even at high ambient temperatures
- No ventilation needed for the installation location
- IP65 variant for use outside the control cabinet
- Simple PC integration using a software tool
- USB port for PC communication



#### Your benefits with the SITOP UPS1600:

- Bridging for up to a period of hours, depending on power requirements
- Automatic detection of the UPS1100 battery modules by UPS1600
- Intelligent battery management for monitoring operational readiness, battery supply, and battery charge level
- Temperature-controlled charging characteristic
- Communication via USB or Ethernet/PROFINET
- Integrated Web server
- Full integration in TIA: convenient engineering in the TIA Portal, function blocks for S7 user programs, and WinCC faceplates
- SITOP UPS Manager supports configuration and monitoring of PC-based systems

#### SITOP UPS500 with capacitors for safeguarding the plant status

When a plant shutdown is unavoidable, applications such as PC-based automation, visualization, and the archiving of operational data are especially in need of longer bridging times. Logging the failure, saving the plant status data, and powering down the PC in a controlled manner may require buffering times of up to a period of minutes. SITOP DC UPSs with highly-capacitive double-layer capacitors store sufficient energy to shut down PC-based systems safely.

#### SITOP UPS1600 with battery modules for maximum buffering time

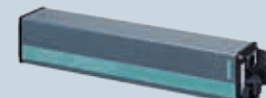
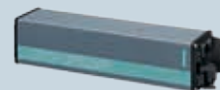
Applications with powerful 24-V loads and processes in which plant sections must continue to be supplied with power in order to record measurement data or maintain communication channels all require high-capacity energy buffers. The SITOP DC UPS with maintenance-free lead or lithium batteries offer long buffer times for high security in the event of power failure. Depending on the power requirements, they can supply power for as long as several hours.

#### The first open, system-integrated DC UPS

The new UPS1600 automatically detects the UPS1100 battery modules and ensures optimum temperature-controlled charging. It can be easily integrated into the PC or PLC environment via Ethernet/PROFINET. The UPS1600 is the first UPS that is fully integrated in TIA.

This makes engineering in the TIA Portal convenient. In addition, S7 function modules allow simple integration into STEP7 user programs and faceplates allow integration into operation and monitoring with SIMATIC panels and SIMATIC WinCC.

# Uninterruptible power supplies – SITOP UPS500 maintenance-free DC UPS with capacitor technology

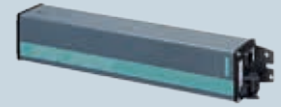


Technical data	Maintenance-free DC UPS				
SITOP	UPS500S – basic unit 15 A		UPS501S – expansion module	UPS500P – basic unit 7 A, degree of protection IP65	
Energy	2.5 kW <sub>s</sub>	5 kW <sub>s</sub>	5 kW <sub>s</sub>	5 kW <sub>s</sub>	10 kW <sub>s</sub>
Article No.	6EP1933-2EC41	6EP1933-2EC51	6EP1935-5PG01	6EP1933-2NC01 <sup>1)</sup>	6EP1933-2NC11 <sup>1)</sup>
Input voltage	24 V DC, 22...29 V, infeed from SITOP 24 V		Infeed from basic unit	24 V DC, 22.5...29 V, infeed from SITOP 24 V	
Rated input current	15.2 A + approx. 2.3 A in charging mode		Description: expansion module for extending the buffering time, up to 3 units can be switched in parallel with one UPS500S basic unit	7 A + approx. 2 A in charging mode	
Rated output voltage	In buffer and normal mode 24 V DC +/-3 %			In buffer mode and normal mode 24 V DC +/-3 %	
Rated output current	15 A, charging current 1 A (factory setting) or 2 A selectable			7 A, charging current 2 A	
Efficiency at rated values, approx.	97.5 %			96.5 %	
Overload and short-circuit protection	Electronic, automatic restart			Electronic, automatic restart	
Parallel switching	No		Yes, up to 3 units	No	No
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B	Class B
Degree of protection (EN 60529)	IP20	IP20	IP20	IP65	IP65
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+55 °C	0...+55 °C
Installation	DIN rail	DIN rail	DIN rail	Screw mounting in all mounting positions	
Dimensions (WxHxD) in mm	120 x 125 x 125	120 x 125 x 125	70 x 125 x 125	400 (without connector) x 80 x 80	470 (without connector) x 80 x 80
Weight approx.	1.0 kg	1.0 kg	0.7 kg	1.9 kg	2.2 kg
Certification	CE, cULus, ATEX, cCSAus Class I Div 2, GL, ABS, CB			CE	CE
List Price	\$630	\$800	\$545	\$1,090	\$1,375

<sup>1)</sup> Connector set with input and output connector as well as prepared USB cable in 2 m length: Article No. 6EP1975-2ES00  
Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# Buffering times and charging times

## SITOP UPS500



	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 x 5 kW	1 x 5 kW	2 x 5 kW	2 x 5 kW	3 x 5 kW	3 x 5 kW	–	–
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

Buffering times										
Load current										
0.5 A	134 sec	236 sec	390 sec	478 sec	632 sec	748 sec	851 sec	1007 sec	284 sec	647 sec
0.8 A	90 sec	167 sec	266 sec	346 sec	440 sec	527 sec	580 sec	706 sec	190 sec	435 sec
1 A	75 sec	138 sec	219 sec	296 sec	365 sec	414 sec	490 sec	572 sec	153 sec	351 sec
2 A	38 sec	76 sec	122 sec	156 sec	203 sec	230 sec	265 sec	306 sec	80 sec	152 sec
3 A	26 sec	52 sec	82 sec	106 sec	136 sec	159 sec	186 sec	213 sec	53 sec	108 sec
4 A	19 sec	39 sec	61 sec	81 sec	101 sec	120 sec	139 sec	160 sec	40 sec	84 sec
5 A	15 sec	31 sec	49 sec	65 sec	81 sec	95 sec	111 sec	130 sec	30 sec	68 sec
6 A	12 sec	26 sec	40 sec	55 sec	67 sec	80 sec	94 sec	106 sec	25 sec	57 sec
7 A	10 sec	21 sec	34 sec	47 sec	58 sec	69 sec	81 sec	82 sec	21 sec	49 sec
8 A	8 sec	18 sec	29 sec	40 sec	50 sec	59 sec	69 sec	79 sec	–	–
10 A	6 sec	15 sec	23 sec	32 sec	39 sec	47 sec	54 sec	62 sec	–	–
12 A	4 sec	12 sec	19 sec	26 sec	32 sec	38 sec	44 sec	52 sec	–	–
15 A	3 sec	9 sec	14 sec	20 sec	25 sec	30 sec	35 sec	40 sec	–	–

Charging times										
Charging current										
2 A	54 sec	120 sec	158 sec	223 sec	263 sec	318 sec	355 sec	417 sec	130 sec	360 sec
1 A	110 sec	205 sec	311 sec	425 sec	503 sec	625 sec	695 sec	816 sec	–	–

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# Uninterruptible power supplies

## SITOP DC UPS with battery modules for bridging longer power failures

	new!				
					
Technical data	SITOP DC UPS for longer power failures				
SITOP	UPS1600	UPS1600	UPS1600	Battery module UPS1100	Battery module UPS1100
Energy storage				Lead batteries	Lead batteries
Output voltage/current or charge	24 V/10 A	24 V/20 A	24 V/40 A	24 V/1.2 Ah for UPS1600 10 A	24 V/3.2 Ah for UPS1600 10 A and 20 A
Article No.	6EP4134-3AB00-0AY0	6EP4136-3AB00-0AY0	6EP4137-3AB00-0AY0	6EP4131-0GB00-0AY0	6EP4133-0GB00-0AY0
– with USB interface	6EP4134-3AB00-1AY0	6EP4136-3AB00-1AY0	6EP4137-3AB00-1AY0		
– with Ethernet/PROFINET interface	6EP4134-3AB00-2AY0	6EP4136-3AB00-2AY0	6EP4137-3AB00-2AY0		
Input voltage	24 V DC, 22...29 V, infeed from 24 V SITOP power supply			Recommended end of charge voltage (set automatically by SITOP UPS1600)	
Rated input current	approx. 14 A for max. charging current (3 A)	approx. 25 A at max. charging (4 A)	approx. 46 A at max. charging (5 A)	Charging current max. 0,3 A	Charging current max. 0,9 A
Rated output voltage	24 V DC (upstream SITOP device or battery), charging voltage: 27.0 V			24 V DC, 22...27.0 V DC (no-load operation)	
Rated output current	10 A, Charging current max. 3 A	20 A, Charging current max. 4 A	40 A, Charging current max. 5 A	10 A	20 A
– Overload behavior (power boost for 30 ms)	30 A	60 A	120 A		
– Overload behavior (extra power for 5 s/min)	15 A	30 A	60 A		
Efficiency at rated values, approx.	> 97.7 %	> 98.2 %	> 98.8 %	Not applicable	Not applicable
Overload and shortcircuit protection	Yes, restart in normal mode			Installed battery fuse: 15 A/32 V	Installed battery fuse: 25 A/32 A
Parallel switching	No	No	No	Yes, up to 6 units	Yes, up to 6 units
Radio interference suppression	Class B (EN 55022)	Class B (EN 55022)	Class B (EN 55022)	–	–
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20
Ambient temperature (Derating from +60°C)	–25...+70 °C	–25...+70 °C	–25...+70 °C	–15...+50 °C	–15...+50 °C
Installation	DIN rail	DIN rail	DIN rail	DIN rail or wall mounting	
Dimensions (WxHxD) in mm	50 x 125 x 125	50 x 125 x 125	70 x 125 x 150	89 x 130 x 107	190 x 169 x 79
Weight approx.	0.38 kg/ 0.4 kg/0.44 kg	0.39 kg/0.41 kg/0.45 kg	0.65 kg/0.65 kg/0.7 kg	1.8 kg	3.8 kg
Certification	CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS		CE, cULus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS	CE, cURus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS	CE, cURus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS
List Price	\$355	\$420	\$820	\$174	\$182
List Price	\$440	\$500	\$920		
List Price	\$555	\$620	\$1,060		

<sup>\*)</sup> Technical data subject to nominal input voltage value and +25 °C ambient temperature (unless stated otherwise)

## Battery module selection table by buffering times and service life

new!			
			
SITOP DC UPS, for longer power failures			
1100 UPS battery module	Battery module UPS1100	UPS1100 battery module with extended temperature range	UPS1100 battery module, lithium technology
<b>Lead batteries</b>	<b>Lead batteries</b>	<b>Pure-lead batteries</b>	<b>LiFePo4 batteries</b>
<b>24 V/7 Ah</b>	<b>24 V/12Ah</b>	<b>24 V/2.5Ah</b>	<b>24 V/ 5 Ah</b>
for UPS1600 10 A, 20 A and 40 A	for UPS1600 10 A, 20 A and 40 A	for UPS1600 10 A and 20 A	for UPS1600 10 A and 20 A
6EP4134-0GB00-0AY0	6EP4135-0GB00-0AY0	6EP4132-0GB00-0AY0	6EP4133-0JB00-0AY0 <sup>1)</sup>
Recommended end of charge voltage: set automatically by SITOP UPS1600			
Charging current max. 2.1 A	Charging current max. 3.6 A	Charging current max. 0.7 A	Charging current max. 2.1 A
24 V DC, 22...27,0 V DC (no-load operation)			DC 24 V, DC 22...28,8 V (no load operation)
40 A	40 A	20 A	20 A
Not applicable	Not applicable	Not applicable	Not applicable
Installed battery fuse: 2 x 25 A/32 A	Installed battery fuse: 2 x 25 A/32 V	Installed battery fuse: 25 A/32 V	Installed battery fuse: 25 A/32 V
Yes, up to 6 units	Yes, up to 6 units	Yes, up to 6 units	Yes, up to 6 units
–	–	–	–
IP20	IP20	IP20	IP20
–15...+50 °C	–15...+50 °C	–40...+60 °C	–20...+50 °C
Wall mounting	Wall mounting	DIN rail or wall mounting	DIN rail or wall mounting
186 x 186 x 110	253 x 186 x 110	265 x 115 x 76	189 x 186 x 113
6.1 kg	9.3 kg	3.7 kg	3,4 kg
CE, cURus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS	CE, cURus, CB, ATEX, IECEx, cCSAus Class I Div 2, GL, ABS	CE, cURus, CB, ATEX, IECEx, cC-SAus Class I Div 2, GL, ABS	CE, cURus, CB, GL, ABS
\$230	\$315	\$465	\$1,195

<sup>1)</sup> Can be used with UPS1600 V2.1, delivery start date March 2016

						
Battery module UPS1100 (24 V)	1.2 Ah	3.2 Ah	7 Ah	12 Ah	2.5 Ah	5 Ah LiFePo
Load current	Buffering times					
1 A	34 min	2.5 h	5.4 h	10.3 h	1.7 h	5.2 h
2 A	15 min	1 h	2.6 h	4.8 h	54.6 min	2.5 h
3 A	9 min	39 min	1.6 h	3 h	32.9 min	1.7 h
4 A	6 min	27 min	1.2 h	2.3 h	20.6 min	1.25 h
6 A	3.5 min	17.5 min	41 min	1.4 h	14.3 min	50.6 min
8 A	2 min	12 min	28 min	1 h	10.5 min	37.8 min
10 A	1 min	9 min	22 min	48.6 min	7.2 min	30.2 min
12 A	–	7 min	17 min	40.3 min	6 min	25.1 min
14 A	–	5 min	15 min	33.6 min	4.5 min	21.6 min
16 A	–	4 min	12.5 min	26 min	4.1 min	18.8 min
20 A	–	1 min	9.1 min	19.6 min	2.9 min	12.9 min
30 A	–	–	4.6 min	12.1 min	–	–
40 A	–	–	2.8 min	8.5 min	–	–
Ambient temperature	Approximate service life (drop to 50% of the original capacity), depending on the battery temperature					
+20 °C	4 years	4 years	4 years	4 years	10 years	15 years
+30 °C	2 years	2 years	2 years	2 years	2 years	10 years
+40 °C	1 year	1 year	1 year	1 year	3 years	9 years
+50 °C	0,5 years	0,5 years	0,5 years	0,5 years	1,5 years	2 years
+60 °C					1 year	

Buffer time determination was based on the discharging time of new and completely charged battery modules with a minimum battery temperature of +25 °C until DC UPS is being turned off.

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