

SIEMENS



SITOP power supply

Top reliability. Top efficiency.  
Top integration. SITOP

[siemens.com/sitop](https://www.siemens.com/sitop)



SITOP PSU100C

SIEMENS

DC 24V/0.6A

24V D.C.



DC 24V/0.6A

6EP1331-5BA00-0AB0

1A1234

AC 100-230V

L1 N PE

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

An efficient power supply is a basic requirement for operating any plant, no matter the industry or need. Critical production processes can only be maintained if a constant power supply of the necessary quality is available for the automation system. SITOP has proven its value in the manufacturing environment over many years, and guarantees a reliable power supply with a complete and precisely coordinated range of products – especially suited to the growing demands of our time.

## Ensuring a reliable power supply

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. Three types of faults must be taken into account: short power failures lasting a few seconds; longer power failures (blackouts) lasting up to several hours; and short voltage dips (brownouts) as a result of load fluctuations. SITOP protects against faults on the supply network and the DC side with special add-on modules, thereby ensuring the necessary supply reliability.

## 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 productivity

Improving productivity is an ongoing commitment. All automation products must be capable of being seamlessly integrated into the product life cycle management system. SITOP supports operators here with an intuitive selection tool for the fast selection of both the power supply and an uninterruptible DC power supply. In addition, it provides you with all mechanical and electrical design data and product documentation. From the tool, you can order directly from the Siemens Industry Mall.

## 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 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.



## SITOP – Reference in three dimensions

### **SITOP means top reliability**

You think about the best possible power supply at the time you purchase it – and then you should never have to think about it again. SITOP has proven its reliability in more than 10 million applications in virtually all supply systems in the world. With its flexible, wide-range input, outstanding load characteristics, and all relevant certifications, the SITOP concept safeguards the availability of your plant. A host of expansion components compensate individual disturbance factors like system and voltage fluctuations, and enable operation even in regions with a varying quality of supply. Fault-specific overloads in the output circuits are selectively disconnected so that the supply to the other loads is maintained.

As a machine and plant manufacturer, you provide your customers with the basis for extremely reliable production when you use SITOP. As a plant operator, you are completely protected against production outages and avoid high follow-up costs as a result. And if a replacement is ever needed, our global customer service ensures the fastest possible delivery, because all SITOP products can be supplied from stock.



### SITOP means top efficiency

Energy costs represent an increasingly large proportion of production costs. Any company that can save here will gain a valuable competitive advantage. SITOP makes an important contribution to energy conservation, because the primary switched-mode power supply units operate highly efficiently. For example, the SITOP modular has an efficiency of up to 95 percent. Losses are low over the entire load range, even in no-load operation. This is because in practice, a power supply is rarely operated at full load.

But that's not all – because for us, efficiency is also always measured against the product life cycle. With the SITOP selection tool, we make it easier for you to select the product you need. The product documentation available from the CAX online configurator, together with the electrical and mechanical design data, supports your planning process and helps keep costs calculable.

### SITOP means top integration

Integration is productivity. For this reason, SITOP has always placed emphasis on seamless integration in the particular production environment. Naturally, the power supplies are optimally matched to automation systems like SIMATIC, SINUMERIK, and SIMOTION. All SIMATIC power supplies are integrated in the TIA portal. This means that they are part of the Siemens platform across the entire planning and production processes of your plant. Selected SITOP devices are also integrated in the object library of COMOS/Automation Designer, and so they can be planned, documented, and changed simply by dragging and dropping. This results in maximum transparency and integration for plant operators. SITOP DC UPS is designed for simple integration in the PC-based automation system SIMATIC IPC. Status messages can be easily evaluated by SIMATIC IPC and, in the case of a power failure, the PC with its applications is safely shut down.

What an optimal power supply looks like depends on numerous factors – size, performance range, and functions, to name but a few. The extensive range of SITOP products ensures that your power supply will always match your requirements.

# Overview of SITOP product lines



**SITOP lite**  
The cost-effective basic power supply

## SITOP lite

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.

## SITOP compact

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 compact**  
The slim power supply for control boxes



**LOGO!Power**  
The flat power supply for distribution boards

## LOGO!Power

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

SITOP smart is the optimal power supply for many 24 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 smart**  
The powerful standard power supply

		SITOP lite	SITOP compact	LOGO!Power				SITOP smart	SITOP modular		
<b>Output</b>	Rated voltages (V DC)	24	12	24	5	12	15	24	24	24	48
	Rated currents (A)	2.5/5/10	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	2.5/5/10/20/40	5/10/20/40	10/20
<b>Input</b>	1-phase	•		•			•		•	•	
	DC input			•			•		•		•
	3-phase								•		•
<b>General</b>	Overload characteristics						+		+		++
	Energy efficiency	+		++			+		+		++
	Switchable parallel	+		+			+		+		++
	Signaling contact "Output voltage OK"								•		•
	Ambient temperature range	•		++			++		+		++
<b>Safety</b>	Explosion protection: ATEX or FM			•			•		•		
	Approved for shipbuilding: GL or ABS						•		•		•
<b>Expandable</b>	Redundancy model	•		•				•	•		•
	Selectivity/diagnostic model	•		•				•	•		•
	Buffer module										•
	DC UPS	•		•				•	•		•

Selection matrix of SITOP product lines for mounting on top hat rails



### SIMATIC Design

The optimal supply for SIMATIC S7 and more



### SITOP modular

The technology power supply for demanding solutions



### Special designs

Equipped for special functions and conditions

#### SITOP power supplies in SIMATIC design

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

#### SITOP modular

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.

#### SITOP special design for special functions

Restricted installation conditions, harsh environmental conditions, or special input and output voltages – whatever the special conditions, these standard power supplies meet even exceptional requirements.

For example: low-cost 12-V and 24-V power supply units in rugged aluminium 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, flexibly adjustable output voltage, and operation in accordance with NEC Class 2.

Processes and plants that are critical for a company's business generally require additional protection measures. SITOP add-on modules individually protect your production against many sources of risk.

# SITOP add-on modules – all-round protection à la carte



## Add-on modules

Add-on modules for  
increasing system availability

### 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.

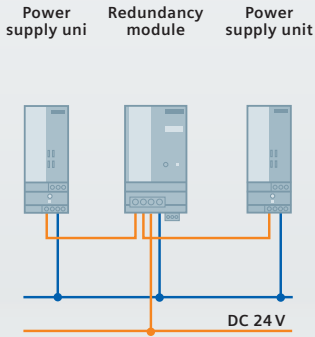
### Selective protection of 24-V load circuits

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.

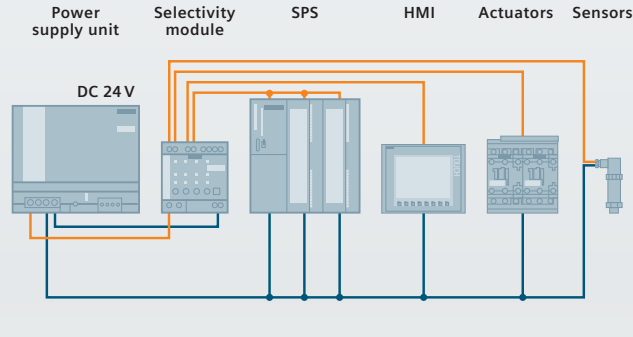
In this case the circuit-breakers do not trip, or they trip too late, even if the power supply could deliver the current. The selectivity module reliably disconnects the faulty load circuits, and the supply to the other loads continues with absolutely no interruption so that total failure of the plant can be avoided. The fault is output via a common signaling contact and indicated by an LED on the relevant load circuit; in this way, the fault can be quickly localized and downtimes are minimized.



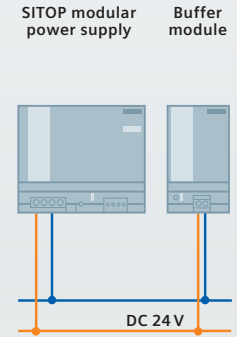
### Configuration with redundancy module



### Configuration with selectivity module



### Configuration with buffer module



Did you know that... by the year 2009, our customers had ordered 10 million SITOP power supply units that they are using worldwide in over 190 countries?

### 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 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

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.

An in-house software solution supports ongoing processing of status messages, safe shutdowns, and correct restarting of your system.

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



## 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

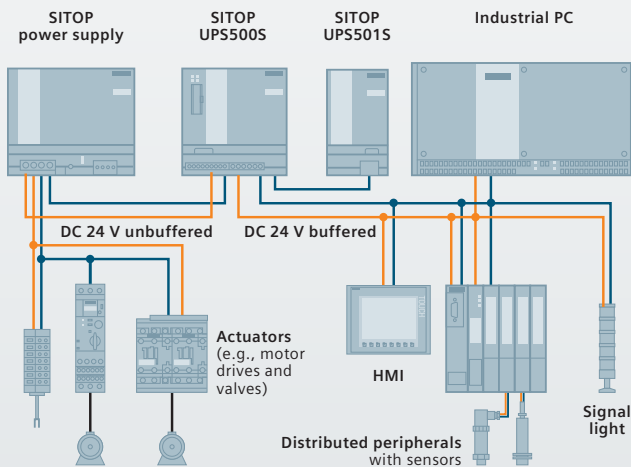
The capacitors have an extremely long life even at high ambient temperatures. No maintenance or replacement of the energy buffer is required, which means that the DC UPS pays for itself within a short time. And because the capacitors do not emit any gas, no ventilation of the control cabinet is required. 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 PSU300P. The elongated design of the aluminium enclosure is ideally suited for mounting on a support arm.

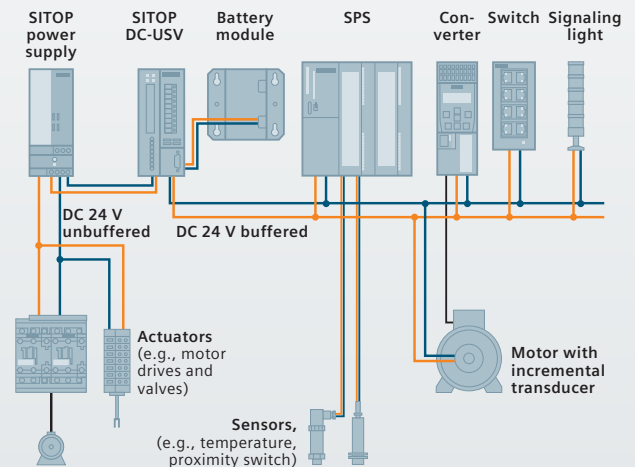
- SITOP UPS500S 15 A, up to 20 KWs
- SITOP UPS500P 7 A, 5/10 KWs with IP65
- Capacitors eliminate replacement of batteries
- Long life even at high temperatures
- No ventilation of the installation site required

### SITOP DC UPS configuration with capacitors



24-V buffering for saving process data and for correct PC shutdown

### SITOP DC UPS configuration with battery modules



24-V buffering for maintaining communications, signaling, sensor-measured values and position values

**Did you know that...** you can integrate DC UPS systems in your PC-based automation solutions with the free SITOP software tool ([siemens.com/sitop-ups](http://siemens.com/sitop-ups))?

### 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

The sophisticated battery management ensures optimal charging of the batteries – and means that the unit is always reliably available for buffering. The active battery test function even checks the age of the battery. This means that precautionary replacement of the battery isn't necessary – a substantial cost saving for your plant.

#### Extremely communicative

All relevant messages are output via floating contacts, or optionally via a serial interface or USB port.

- DC UPS modules 6 A, 15 A, and 40 A
- Maintenance-free battery modules up to 12 Ah
- Monitoring of operational readiness, battery feeder, aging, and charging status
- Extended life of loads and batteries due to battery management
- Uninterrupted transition from readiness to buffering mode

You can preselect the relevant power supplies on the basis of their technical features, then compare them and export them to the product list or into the shopping cart in the Siemens Industry Mall.



The suitable DC UPS with capacitor or battery technology can be selected using parameters like buffering time and load current.



# You can search a long time for the right power supply solution. Or you can simply find it.

A power supply unit has to meet many different requirements, and the choice of available solutions is correspondingly large. In order to reduce the time it can take to find a suitable solution, we have developed the SITOP Selection Tool that supports your PLM process (product life cycle management) right from the start. This is because with the SITOP selection tool you can not only select your power supply – now you can also find the matching uninterruptible power supply (DC-UPS). You can order the selected products easily in the Siemens Industry Mall. In addition, you will automatically receive the required CAD data and circuit diagram macros for fast easy project planning.

CAD and CAE data in the Siemens image database for simple planning



All product information is available per download via the CAx online generator.



**Did you know that...** you can retrieve all the important data you need for planning your power supply via the CAx online generator?

### PLM optimization starts with selection

The SITOP Selection Tool navigates you to the optimum power supply for your requirements with a few mouse clicks. Simply enter the relevant parameters and select your solution. Even the expansion for the DC UPS can be selected with a few clicks, whether with capacitor or battery technology. The table that compares a variety of devices offers additional oversight. For displaying the technical data, you can select between all data, all identical data, or all different data.

Once you've opted for a solution, you can export the resulting product list into an Excel or PDF file, or move it directly to the Industry Mall shopping cart and order there. Choosing a product could hardly be faster, easier, and more transparent.

### Everything you need for planning

Additional information such as 3D data, circuit diagram macros, certificates, and operating instructions are available with the click of mouse. You can download these in DXF, STEP, and EPLAN format and use them directly for your planning. They are also available via the CAx online generator, and can be selected there individually as required and downloaded. This not only saves you valuable planning time, you also benefit from transparent documentation.

### Your advantages at a glance:

- Always the latest product data – direct from the manufacturer
- Direct download of the individual data or as a package via CAx online generator
- Direct utilization in drawing up designs
- Efficient compiling of machine and plant documentation
- More reliable plant planning



# You can have a bad history with your power supply. Or you can write history with it.

Twenty years ago, Siemens began to record a unique success story in the power supply sector. Since then, SITOP has demonstrated in countless installations how reliability, efficiency, and integration can be guaranteed permanently at the highest level in all industrial sectors.



### Top reliability

Automatisierungstechnik Lothar Brodbeck (ATB) is a company that creates system solutions primarily for customers in semiconductor technology, the photovoltaics industry, and mechanical engineering. The 24-V supply of the automation components together with the central control unit plays a vital role in these solutions. For this reason, ATB chose SITOP power supply units and add-on modules, some in redundant design. This choice proved to be the right one. To date, not one single device has failed at a customer's site.

### Top efficiency

Wirtz Werkzeuge GmbH specializes in high-tech machines and automated transfer systems, for example, for the automotive industry. Energy efficiency has very high priority for the company, therefore it is only logical for them to rely on SITOP modular three-phase 40-A power supply units. With an efficiency of 93 percent, they are extremely energy-efficient and dissipate very little heat in the control cabinet. In addition, the selectivity module reliably detects electrical faults in the 24-V paths, reduces downtimes to a minimum, and so plays its own role in redefining efficiency.

### Top integration

Matzdorf-Elektrotechnik GmbH builds systems for process engineering and environmental technology, including controls for biogas plants. The uninterruptible power supply SITOP UPS500P based on capacitor technology, in conjunction with a SIMATIC 477B panel PC, ensures reliable operation. These components are precisely coordinated, which means that the UPS can not only support a controlled shutdown, it can also restart the PC in the event that the power supply is restored while the PC is shutting down. This is a crucial advantage, especially in fully automatic biogas plants, because it means that the PC does not need to be restarted manually as would typically be required.

## Further information

More about SITOP:  
[www.siemens.com/sitop](http://www.siemens.com/sitop)

SITOP Selection Tool:  
[www.siemens.com/sitop-selection-tool](http://www.siemens.com/sitop-selection-tool)

Information material as download:  
[www.siemens.com/sitop-infomaterial](http://www.siemens.com/sitop-infomaterial)

Operating instructions as download:  
[www.siemens.com/sitop/manuals](http://www.siemens.com/sitop/manuals)

CAX data (2D, 3D, circuit diagram macro) as download:  
[www.siemens.com/sitop-cax](http://www.siemens.com/sitop-cax)

Request all CAX data via the CAX online generator:  
[www.siemens.com/cax](http://www.siemens.com/cax)

Order electronically via Internet in the Industry Mall:  
[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

Find your personal contact partner at:  
[www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

Siemens AG  
Industry Sector  
Industry Automation  
P.O. Box 48 48  
90026 NUREMBERG  
GERMANY  
[www.siemens.com/automation](http://www.siemens.com/automation)

Subject to changes without prior notice  
Order No.: E80001-A2650-P310-X-7600  
Dispo 46305  
NC/120083 MI.SC.ST.XXXX.52.2.02  
WS 04125.0  
Printed in Germany  
© Siemens AG 2012

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.



SIEMENS



Technical data, April 2012

# SITOP power supply

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



Page 6

### SITOP lite

The cost-effective basic power supply



Page 7

### SITOP compact

The slim power supply unit for control boxes



Page 8

### LOGO!Power

The flat power supply for distribution boards



Page 9

### SIMATIC Design

The optimal supply for SIMATIC S7 and more



Page 10, 1-phase  
Page 11, 3-phase

### SITOP smart

The powerful standard power supply



Page 12, 1- and 2-phase  
Pages 13, 3-phase

### SITOP modular

The technology power supply for demanding solutions

# Three good reasons for a SITOP power supply

A reliable power supply is the basis for all production and for all plants, so it's only logical that you would be extra careful when selecting the best fitting power supply. Three factors of special importance: reliability, efficiency, and integration.

## SITOP – Top in reliability

Stabilized output voltages on request – it may not sound like much, but it's actually a key production criterion for any plant, no matter what the industry. The high quality of SITOP power supplies already guarantees a reliable power supply. Numerous expansion components also protect against mains problems and problems on the DC side, thus improving the reliability of the entire plant.



Pages 14 –17



Pages 18 –19



Pages 20 –21, with capacitors  
Pages 22 –23, with battery modules

## Special design

Equipped for special functions and conditions

## Expansion modules

Expansion modules for boosting system availability

## DC UPS, uninterruptible DC power supply

Reliable 24 volt – even during power failures

### SITOP – Top in efficiency

With energy costs rising, efficiency is an increasingly important competitive argument. And that's where SITOP power supplies make a valuable contribution. Power loss is low over the entire load range, including in no-load operation. Because a power supply is rarely operated at full load, this provides excellent opportunities for savings.

### SITOP – Top in integration

The more fully a power supply is integrated into its environment, the higher its productivity. SITOP is optimally tailored to automation systems such as SIMATIC, SINUMERIK, and SIMOTION, and is fully integrated in the TIA Portal. Thanks to extensive supplementary information – such as 3D data, circuit diagram macros, certificates, and operating instructions – every SITOP solution can be configured for maximum efficiency. So there's nothing standing in the way of fast, smooth implementation.

# Selection table

## SITOP power supplies

Input voltage	Output current	SITOP lite	SITOP compact	LOGO!Power	SITOP smart	SIMATIC Design	SITOP modular	"Special design, special use"
<b>Output voltage 24V DC</b>								
1-phase 120V AC, 230V AC	0.6 A		6EP1331-5BA00					
	1.3 A		6EP1331-5BA10	6EP1331-1SH03				
	2 A					6ES7307-1BA01-0AA0		6EP1331-1LD00
	2.5 A	6EP1332-1LB00	6EP1332-5BA00	6EP1332-1SH43	6EP1332-2BA10	6EP1332-1SH71		6EP1232-1AA00
	3.1 A							6EP1332-1LD00
	3.5 A					6EP1332-1SH31		
	3.7 A							6EP1332-2BA00
	4 A		6EP1332-5BA10	6EP1332-1SH52				6EP1232-1AA10
	5 A	6EP1333-1LB00			6EP1333-2AA01	6ES7307-1EA80-0AA0	6EP1333-3BA00	6EP1333-1AL12
					6EP1333-2BA01	6ES7307-1EA01-0AA0		
	6.2 A							6EP1333-1LD00
	10 A	6EP1334-1LB00			6EP1334-2AA01	6ES7307-1KA02-0AA0	6EP1334-3BA00	6EP1334-1AL12
					6EP1334-2BA01			
					6EP1334-2AA01-0AB0			
	12.5 A							6EP1334-1LD00
	20 A				6EP1336-2BA10		6EP1336-3BA00	
						6EP1336-3BA10		
40 A						6EP1337-3BA00		

### 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

Input voltage	Output current	SITOP compact	LOGO!Power	SITOP smart	SIMATIC Design	SITOP modular	"Special design special use"
<b>Output voltage 24 V DC</b>							
3-phase 400 – 500 V AC	5 A					6EP1333-3BA00 <sup>1)</sup>	
	8 A				6ES7148-4PC00-0HA0		6EP1433-2CA00
	10 A			6EP1434-2BA10		6EP1334-3BA00 <sup>1)</sup>	
	20 A			6EP1436-2BA10		6EP1436-3BA10	
						6EP1436-3BA00	
	30 A						6EP1437-3BA20
	40 A				6EP1437-2BA20		6EP1437-3BA10
						6EP1437-3BA00	
24 – 110 V DC	2 A				6ES7305-1BA80-0AA0		
110 – 300 V DC	0.6 A	6EP1331-5BA00					
	1.3 A	6EP1331-5BA10	6EP1331-1SH03				
	2.5 A	6EP1332-5BA00	6EP1333-1SH43				
	4 A	6EP1332-5BA10	6EP1332-1SH52				
88 – 350 V DC	20 A					6EP1336-3BA10	
600 V DC	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 Catalog KT10.1 or in Online Catalog CA01

Input voltage	Output	SITOP compact	LOGO!Power	SITOP modular	"Special design special use"
<b>Output voltage 5, 12, 15, 48, ... V DC</b>					
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				6EP1321-1LD00
	12 V/4.5 A		6EP1322-1SH03		
	12 V/6.5 A	6EP1322-5BA10			
	12 V/8.3 A				6EP1322-1LD00
	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
24 V DC	12 V/2.5 A				6EP1621-2BA00
	12 V/20 A				6EP1424-3BA00
3-phase 400 – 500 V AC	48 V/10 A			6EP1456-3BA00	
	48 V/20 A			6EP1457-3BA00	

# SITOP lite





## Cost-effective basic power supply

	new!	new!	new!
			
<b>Technical data</b>	<b>SITOP lite</b>		
<b>Output voltage / current, type</b>	<b>24 V/2.5 A, PSU100L</b>	<b>24 V/5 A, PSU100L</b>	<b>24 V/10 A, PSU100L</b>
Order No.	6EP1332-1LB00	6EP1333-1LB00	6EP1334-1LB00
Rated input voltage	120/230 V AC	120/230 V AC	120/230 V AC
– Range	93...132/187...264 V AC	93...132/187...264 V AC	93...132/187...264 V AC
Mains buffering	> 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
Rated input current	1.1/0.65 A	2.1/1.15 A	4.3/2.4 A
– Inrush current (25 °C)	< 27 A	< 32 A	< 65 A
– Recommended <sup>1)</sup> miniature circuit breaker	3 A Characteristic C	6 A Characteristic C	10 A Characteristic C
Rated output voltage	24 V DC	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %	± 3 %
– Setting range	22.8...26.4 V DC	22.8...26.4 V DC	22.8...26.4 V DC
Rated output current	2.5 A	5 A	10 A
– Derating	from +45 °C (2%/K)	from +45 °C (2%/K)	from +45 °C (3%/K)
Efficiency at rated values, approx.	85 %	86 %	89 %
No-load loss	Yes	Yes	Yes
Parallel switching	Yes, constant current	Yes, constant current	Yes, constant current
Electronic short-circuit protection	Not applicable	Yes	No
Radio interference suppression (EN 55022)	Class A	Class A	Class A
Degree of protection (EN 60529)	IP20	IP20	IP20
Ambient temperature	0... +60 °C	0... +60 °C	0... +60 °C
Dimensions (WxHxD) in mm	32.5 x 125 x 125	50 x 125 x 125	70 x 125 x 125
Weight approx.	0.4 kg	0.5 kg	0.75 kg
Certification	CE, cULus	CE, cULus	CE, cULus

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

# 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	12 V/6.5 A, PSU100C
Order No.	6EP1331-5BA00	6EP1331-5BA10	6EP1321-5BA00	6EP1332-5BA00	6EP1332-5BA10	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
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)
Rated line frequency	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	1.6–0.75 A 10 A characteristic C 16 A characteristic B
Rated output voltage – 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	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%/K)	4 A from +50 °C (3%/K)	6.5 A from +50 °C (3%/K)
Efficiency at rated values, approx.	82 %	86 %	82 %	87 %	88 %	85 %
No-load loss	< 0.5 W	< 0.75 W	< 0.5 W	< 0.75 W	< 0.75 W	< 0.75 W
Parallel switching	No	Yes <sup>2)</sup>	Yes <sup>2)</sup>	Yes <sup>2)</sup>	Yes <sup>2)</sup>	Yes <sup>2)</sup>
Electronic short-circuit protection	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
Supply harmonics limitation (EN 61000-3-2)	Not applicable	Not applicable	Not applicable	Not applicable	Yes	Yes
Degree of protection (EN 60529)	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
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
Weight approx.	0.12 kg	0.17 kg	0.17 kg	0.22 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
Certification	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2	CE, cULus, cCSAus, ATEX, cCSAus Class I Div 2

1) Accessory: removable spring-type terminal, order no. 6EP1971-5BA00

2) 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



Technical data	54 mm design				72 mm design				90 mm design
<b>Output voltage / current</b>	<b>5V/3A</b>	<b>12V/1.9A</b>	<b>15V/1.9A</b>	<b>24V/1.3A</b>	<b>5V/6.3A</b>	<b>12V/4.5A</b>	<b>15V/4A</b>	<b>24V/2.5A</b>	<b>24V/4A</b>
Order 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 D				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) – Recommended miniature circuit breaker	0.36–0.22 A < 26 A 10 A characteristic C resp. 16 A characteristic B	0.53–0.30 < 25 10 A characteristic C resp. 16 A characteristic B	0.63–0.33 A < 25 A 10 A characteristic C resp. 16 A characteristic B	0.70–0.35 A < 25 A 10 A characteristic C resp. 16 A characteristic B	0.71–0.37 A < 50 A 10 A characteristic C resp. 16 A characteristic B	1.13–0.61 A < 55 A 10 A characteristic C resp. 16 A characteristic B	1.24–0.68 < 55 10 A characteristic C resp. 16 A characteristic B	1.22–0.66 A < 46 A 10 A char. C resp. 16 A char. B	1.95–0.97 A < 30 A 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 %	80 %	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
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, FM, GL, ABS, ATEX, NEC Class 2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, NEC Class 2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, NEC Class 2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, SEMI F47, NEC Class 2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, NEC Class 2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, SEMI F47, NEC Class2, cCSAus Class I Div 2	CE, cULus, FM, GL, ABS, ATEX, cCSAus Class I Div 2

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



# SITOP in SIMATIC design

								
Technical data	SIMATIC S7-1200 design	SIMATIC S7-200 design	SIMATIC S7-300 design				SIMATIC ET200 pro PS	
Output voltage / current, type	24 V/2.5 A, PM1207	24 V/3.5 A	24 V/2 A, PS307	24 V/5 A, PS307	24 V/10 A, PS307	24 V/5 A, outdoor <sup>1)</sup>	24 V/8 A	
Order No.	6EP1332-1SH71	6EP1332-1SH31	6ES7307-1BA01-0AA0	6ES7307-1EA01-0AA0	6ES7307-1KA02-0AA0	6ES7307-1EA80-0AA0	6ES7 148-4PC00-0HA0	
Rated input voltage	120/230 V AC automatic range selection	120/230 V AC	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	400 – 480 V 3 AC	
– Range	85...132 V/176...264 V AC	93...132 V/187...264 V AC	85...132 V/170...264 V AC	85...132 V/170...264 V AC	85...132 V / 170...264 V AC	93...132 V/187...264 V AC	340...550 V 3 AC	
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 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)	15 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	1.65/0.95 A	0.9/0.5 A	2.3/1.2 A	4.2/1.9 A	2.2/1.2 A	2 A	
– Inrush current (25 °C)	< 13 A	< 33 A	< 22 A	< 20 A	< 55 A	< 45 A	< 40 A	
– Recommended miniature circuit breaker	16 A charakt. B, 10 A charakt. C	10 A charakt. C, 6 A charakt. D	3 A charakt. C	6 A charakt. C	10 A charakt. C	10 A charakt. C	3RV1021-1DA15 or fuse max. 25 A, time-lag	
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 %	± 5 %	± 3 %	± 3 %	± 3 %	± 3 %	–5 %/+3 %	
– Setting range	–	–	–	–	–	–	–	
Rated output current	2.5 A	3.5 A	2 A	5 A	10 A	5 A	8 A	
Efficiency at rated values, approx.	83 %	84 %	84 %	86 %	90 %	84 %	88 %	
Parallel switching	Yes	Yes	Yes	Yes	Yes	No	No	
Electronic short-circuit protection	Yes, constant current characteristic	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	Yes	Not applicable	Yes	Yes	No	No	
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP67	
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	–25...+70 °C	–25...+55 °C	
Installation	DIN rail or wall mounting	DIN rail or wall mounting	Can be mounted on S7 rail. Mounting adapter for DIN rail 35x15 mm: 6EP1971-1BA00			Can be mounted on S7 rail. Mounting adapter: 6ES7390-6BA00-0AA0	Screw mounting on SIMATIC ET 200pro system rail	
Maße (B x H x T) in mm	70 x 100 x 75	160 x 80 x 62	40 x 125 x 120	60 x 125 x 120	80 x 125 x 120	80 x 125 x 120	310 x 135.5 x 90+connector	
Weight approx.	0.3 kg	0.5 kg	0.4 kg	0.6 kg	0.8 kg	0.57 kg	2.8 kg	
Certification	CE, cULus, ATEX, cCSAus Class I Div 2, GL, ABS	CE, cULus	CE, cULus, ATEX, cULus Class I Div 2, GL, ABS			CE, UL, CSA		CE






<sup>1)</sup> Condensation permissible, increased vibration and shock resistance

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

# SITOP smart

## Powerful standard power supply

new!

							
Technical data	SITOP smart 1-phase						
Output voltage/current, type	24 V/2.5 A	24 V/5 A	24 V/5 A	24 V/10 A	24 V/10 A	24 V/10 A, Wallmount	24 V/ 20 A, PSU100S
Order No.	6EP1332-2BA10	6EP1333-2AA01	6EP1333-2BA01	6EP1334-2AA01	6EP1334-2BA01	6EP1334-2AA01-0AB0	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	120/230 V AC
– Range	85...132/170...264 V AC	85...132/170...264 V AC	85...132/170...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
Mains buffering	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)	> 20 ms (at 93/187V)
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	1.1/0.65 A	2.1/1.15 A	2.1/1.15 A	4.1/2.4 A	4.1/2.0 A	4.1/2.0 A	7.5/3.5 A
– Inrush current (25 °C)	< 14 A	< 32 A	< 32 A	< 65 A	< 65 A	< 65 A	< 11 A
– Recommended miniature circuit breaker	3 A characteristic C	6 A characteristic C	6 A characteristic C	10 A characteristic C	10 A characteristic C	10 A characteristic C	10 A characteristic C
Rated output voltage	24 V DC	24 V DC	24 V DC	DC 24 V	24 V DC	24 V DC	24 V DC
– Tolerance	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %	± 3 %
– Setting range	22.8...28 V DC	22.8...28 V DC	22.8...28 V DC	DC 22.8...28 V	22.8...28 V DC	22.8...28 V DC	22.8...28 V DC
Rated output current	2.5 A	5 A	5 A	10 A	10 A	10 A	20 A
– Permanently up to +45 °C	3 A	6 A	6 A	12 A	12 A	12 A	24 A
– Overload behavior	3.75 A	7.5 A	7.5 A	15 A	15 A	15 A	30 A
(extra power for 5 s/min)							
– Derating	—	—	—	—	—	—	from +60 °C (5%/K)
Efficiency at rated values, approx.	85 %	87 %	87 %	90 %	91 %	90 %	90 %
Parallel switching	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Electronic short-circuit protection	Yes, constant current						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	No	Yes	No	Yes	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP 20
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+70 °C
Dimensions (WxHxD) in mm	32.5 x 125 x 125	50 x 125 x 125	50 x 125 x 125	70 x 125 x 125	70 x 125 x 125	70 x 125 x 125	115 x 145 x 150
Weight approx.	0.4 kg	0.5 kg	0.5 kg	0.75 kg	0.8 kg	0.85 kg	2.4 kg
Certification	CE, UL, CSA, GL, ATEX, cCSAus Class I Div 2						CE, cULus, cCSAus Class1 Div 2, (ATEX und GL in preparation)

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

# SITOP smart

## Powerful standard power supply









Technical data	SITOP smart 3-phase		
Output voltage / current, type	24V/10A, PSU300S	24V/20A, PSU300S	24V/40A, PSU300S
Order No.	6EP1434-2BA10	6EP1436-2BA10	6EP1437-2BA20
Rated input voltage – Range	400 – 500 V 3 AC 340...550 V 3 AC	400 – 500 V 3 AC 340...550 V 3 AC	400 – 500 V 3 AC 340...550 V 3 AC
Mains buffering	> 6 ms (at 400V)	> 6 ms (at 400V)	> 6 ms (at 400V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current – Inrush current (25 °C) – Recommended miniature circuit breaker	0.7 – 0.5 A < 36 A From 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	1.7 – 1.5 A < 60 A From 10 – 16 A charact. C 3-ph. coupled or 3 RV2011-1DA10 or 3 RV2711-1DD10
Rated output voltage – Tolerance – Setting range	24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28 V DC	24 V DC ± 3 % 24...28 V DC
Overload characteristics – Permanently up to +45 °C – Overload behavior (extra power for 5 s/min) – Derating	10 A 12 A 15 A –	20 A 24 A 30 A from +60 °C (5%/K)	40 A 48 A 60 A from +60 °C (2.5%/K)
Efficiency at rated values, approx.	91 %	91 %	91.5 %
Parallel switching	Yes	Yes	Yes
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart
Radio interference suppression (EN 55022)	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Yes	Yes	Yes
Degree of protection (EN 60529)	IP20	IP20	IP20
Ambient temperature	0...+70 °C	0...+70 °C	0...+70 °C
Dimensions (WxHxD) in mm	90 x 145 x 150	90 x 145 x 150	150 x 145 x 150
Weight approx.	1.6 kg	1.6 kg	3.7 kg
Certification	CE, cULus, ATEX, cCSAus Class I Div 2, GL	CE, cULus, ATEX, cCSAus Class I Div 2, GL	CE, cULus, ATEX, cCSAus Class I Div 2, GL

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

# SITOP modular

## Technology power supply for demanding solutions

						
Technical data	SITOP modular 1-phase and 2-phase 1)					
Output voltage / current, type	24 V/5 A	24 V/10 A	24 V/20 A, PSU100M	24 V/20 A, PSU400M	24 V/20 A	24 V/40 A
Order No.	6EP1333-3BA00	6EP1334-3BA00	6EP1336-3BA10	6EP1536-3AA00	6EP1336-3BA00	6EP1337-3BA00
Rated input voltage – Range	120–230/230–500 V AC 85...264/176...550 V AC	120–230/230–500 V AC 85...264/176...550 V AC	AC 120–230V AC 85...275V oder DC 88...350V	600 V DC 200...900 V DC, start-up from approx. 400 V	AC 120/230V AC 85...132/ 176...264V, Anlauf ab 93/ 183 V	AC 120/230V AC 85...132/ 176...264V, Anlauf ab 95/ 190 V
Mains buffering	> 25 ms (at 120/230V)	> 25 ms (at 120/230V)	> 25 ms (at 120/230V)		> 20 ms (at 230V)	> 20 ms (at 230V)
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	2.2–1.2/1.2–0.61 A < 35 A 6 A charact. C or 3RV2011-1xA10	4.4–2.4/2.4–1.1 A < 35 A 6 A charact. C or 3RV2011-1xA10	4.6–2.5 A < 20 A 6 A charact. C or 3RV1021-1xA10	0.85 A < 8 A	7.7/3.5 A < 60 A 10 A charact. C or 3RV2411-1xA10	15.0/8.0 A < 125 A 20 A charact. C or 3RV2411-xxA10
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...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC	24 V DC ± 3 % 24...28.8 V DC
Rated output current – Overload behavior (power boost for 25 ms) – Overload behavior (extra power for 5 s/min) – Derating	5 A 15 A	10 A 30 A	20 A 60 A 30 A	20 A 30 A	20 A 60 A	40 A 120 A
Efficiency at rated values, approx.	87 %	87 %	93 %	95 %	89 %	88 %
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					
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class A (emission)	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	Yes	Yes	Yes	No	Yes	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP 20	IP20	IP20
Ambient temperature	–25...+70 °C	–25...+70 °C	–25...+70 °C	–25...+70 °C	0...+70 °C	0...+70 °C
Dimensions (WxHxD) in mm	70 x 125 x 125	90 x 125 x 125	90 x 125 x 125	90 x 125 x 125	160 x 125 x 125	240 x 125 x 125
Weight approx.	1.2 kg	1.4 kg	1.5 kg	1.2 kg	2.2 kg	2.9 kg
Certification	CE, cULus, GL, ABS, SEMI F47 <sup>2)</sup>	CE, cULus, GL, ABS, SEMI F47 <sup>2)</sup>	CE, cULus, GL, ABS	CE, cULus (GL and ABS in preparation)	CE, cULus, GL, ABS, SEMI F47 <sup>3)</sup>	CE, cULus, SEMI F47 <sup>4)</sup>

<sup>1)</sup> Connection to 2 phases of a three-phase supply system

<sup>2)</sup> At input voltage 208 to 230 V AC

<sup>3)</sup> In conjunction with one buffer module


<sup>4)</sup> In conjunction with two buffer modules

SITOP modular 3-phase				SITOP modular 3-phase, 48 V	
					
<b>24 V/20 A, PSU300M</b>	<b>24 V/20 A</b>	<b>24 V/40 A, PSU300M</b>	<b>24 V/40 A</b>	<b>48 V/10 A, PSU300M</b>	<b>48 V/20 A</b>
6EP1436-3BA10	6EP1436-3BA00	6EP1437-3BA10	6EP1437-3BA00	6EP1456-3BA00	6EP1457-3BA00
400 – 500 V 3 AC 320...575 V 3 AC	320...550 V 3 AC, start-up from 340 V	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	400 – 500 V 3 AC 320...575 V 3 AC	320...550 V 3 AC, start-up from 340 V
> 15 ms (at 400 V)	> 6 ms (at 400 V)	> 15 ms (at 400 V)	> 6 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
1.2 – 1.0 A < 18 A 6 – 16 A charact. C 3-ph. coupled or 3RV2011-1DA10 or 3RV2711-1DD10	1.1 – 0.9 A < 35 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	2.0 – 1.7 A < 70 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	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	24 V DC ± 3 % 24...28.8 V DC	48 V DC ± 3 % 42...56 V DC	48 V DC ± 3 % 42...56 V DC
20 A 60 A	20 A 60 A	40 A 120 A	40 A 120 A	10 A 23A	20 A 60 A
30 A		60 A		15 A	
from +60 °C (3 %/K)	from +60 °C	from +60 °C (3.8 %/K)	from +60 °C	from +60 °C (3 %/K)	
93%	90%	93%	90%	93%	90%
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					
Class B	Class B	Class B	Class B	Class B	Class B
Yes	Yes	Yes	Yes	Yes	Yes
IP20	IP20	IP20	IP20	IP 20	IP20
–25...+70 °C	0...+70 °C	–25...+70 °C	0...+70 °C	–10...+70 °C	0...+60 °C
70 x 125 x 125	160 x 125 x 125	150 x 125 x 150	240 x 125 x 125	70 x 125 x 125	240 x 125 x 125
1.2 kg	2.0 kg	3.4 kg	3.2 kg	1.2 kg	3.2 kg
CE, cULus, GL, ABS, SEMI F47	CE, UL, CSA, GL, ABS, SEMI F47	CE, cULus, GL, ABS, SEMI F47	CE, UL, CSA, SEMI F47	CE, cULus, GL, ABS	CE, UL, CSA, GL, ABS

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

# SITOP

## in special design, for special uses

	new!	new!	
			
			PSU100D direct wall mounting
<b>Technical data</b>	<b>PSU100D direct wall mounting</b>		
<b>Output voltage / current</b>	<b>12 V/3 A</b>	<b>24 V/2.1 A</b>	<b>24 V/3.1 A</b>
Order No.	6EP1321 – 1LD00	6EP1331 – 1LD00	6EP1332 – 1LD00
Rated input voltage	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
Mains buffering	> 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
Rated input current	0.65 A	1,1 – 0.7 A	1.5 – 1.0 A
– Inrush current (25 °C)	< 30 A	< 60 A	< 60 A
– Recommended miniature circuit breaker	10 A characteristic C, 16 A characteristic B		
Rated output voltage	12 V DC	24 V DC	24 V DC
– Tolerance	+/- 2%	+/- 2%	+/- 2%
– Setting range	11...14 V DC	22...28 V DC	22...28 V DC
Output current – rated value	3 A	2.1 A	3.1 A
– Derating	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 %
Parallel switching	Yes	Yes	Yes
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart
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	–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
Weight approx.	0.37 kg	0.35 kg	0.37 kg
Certification	CE, cULus und cURus	CE, cULus und cURus	CE, cULus und cURus

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

new!		new!	
			
<b>PSU100D direct wall mounting</b>			
<b>24 V/4.1 A</b>	<b>12 V/8.3 A</b>	<b>24 V/6.2 A</b>	<b>24 V/12.5 A</b>
6EP1332-1LD10	6EP1322-1LD00	6EP1333-1LD00	6EP1334-1LD00 <sup>1)</sup>
100–240 V AC	100–240 V AC	100–240 V AC	100–240 V AC
85...264 V AC	85...264 V AC	85...264 V AC	85...264 V AC
> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)	> 15 ms (at 115/230 V)
50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
2.0–1.1 A	2.0–1.1 A	3.1–2.0 A	4.0–2.0 A
< 75 A	< 75 A	< 75 A	< 60 A
DC 24 V +/- 2%	12 V DC +/- 2%	24 V DC +/- 2%	24 V DC +/- 2%
22...28 V DC	11...14 V DC	22...28 V DC	22...28 V DC
4.1 A from +50 °C (2.5%/K)	8.3 A from +50 °C (2.5%/K)	6.2 A from +50 °C (2.5%/K)	12.5 A from +50 °C (2.5%/K)
86 %	84 %	86 %	86 %
Yes	Yes	Yes	Yes
Yes, restart	Yes, restart	Yes, restart	Yes, restart
Class B	Class B	Class B	Class B
Yes	Yes	No	Yes
IP20	IP20	IP20	IP20
-10°C...+70°C	-10°C...+70°C	-10°C...+70°C	-10°C...+70°C
Wall mounting, variable installation position			
97 x 158 x 38	97 x 158 x 38	97 x 178 x 38	105 x 199 x 41
0.50 kg	0.57 kg	0.55 kg	0.81 kg
CE, cULus und cURus	CE, cULus und cURus	CE, cULus und cURus	CE, cULus und cURus

<sup>1)</sup> Scheduled delivery release: July 2012  
Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

# SITOP

## in special design, for special uses



Technical data	SITOP flat design		Class 2 approval	SITOP PSU300P in IP67
<b>Output voltage / current</b>	<b>24 V/5 A</b>	<b>24 V/10 A</b>	<b>24 V/3.7 A</b>	<b>24 V/8 A</b>
Order No.	6EP1333-1AL12	6EP1334-1AL12	6EP1332-2BA00	6EP1433-2CA00
Rated input voltage	120/230 V AC	120/230 V AC	120/230 V AC	400 – 480 V 3 AC
– Range	85...132/170...264 V AC	85...132/170...264 V AC	93...132 V/187...264 V AC	340...550 V 3 AC
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 10 ms (at 93/187 V)	15 ms (at 400 V)
Rated line frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated input current	2.2/1.2 A	4/2.5 A	1.8/0.7 A	2 A
– Inrush current (25 °C)	< 32 A	< 65 A	< 32 A	< 40 A
– Recommended miniature circuit breaker	6 A charakt. C	10 A charakt. C	6 A charakt. C	3RV1021-1DA10
Rated output voltage	24 V DC	24 V DC	24 V DC	24 V DC
– Tolerance	± 1 %	± 1 %	± 3 %	–5 %/+3 %
– Setting range	22...29 V DC	22...29 V DC	22.8...26.4 V <sup>1)</sup> DC	–
Output current – rated value	5 A	10 A	3.7 A	8 A
– Derating	–	–	–	–
Efficiency at rated values, approx.	88 %	89 %	> 80 %	88 %
Parallel switching	Yes	Yes	Yes <sup>1)</sup>	No
Electronic short-circuit protection	Yes, restart	Yes, restart	Yes, restart	Yes, restart
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class B
Supply harmonics limitation (EN 61000-3-2)	No	No	Yes	No
Degree of protection (EN 60529)	IP20	IP20	IP20	IP67
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	–25 °C...+55 °C
Installation	DIN rail	DIN rail	DIN rail	Screw mounting on SIMATIC ET 200pro system rail
Dimensions (WxHxD) in mm	160 x 130 x 60	160 x 130 x 60	70 x 125 x 125	310 x 135.5 x 90 + connector
Weight approx.	0.6 kg	0.72 kg	0.75 kg	2.8 kg
Certification	CE, cULus	CE, cULus	CE, cULus, Class2	CE

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






<sup>1)</sup> Only permissible at an ambient temperature of 0 to 50 °C



	<b>new!</b>	<b>new!</b>			
					
Technical data	SITOP PSU300B for battery charging	SITOP DC/DC	SITOP DC/DC	SITOP dual	SITOP flexi
<b>Output voltage / current</b>	<b>12 V/20 A</b>	<b>24 V/30 A</b>	<b>12 V/2.5 A</b>	<b>2 x 15 V/3.5 A</b>	<b>3...52 V/10 A</b>
Order No.	6EP1424-3BA00	6EP1437-3BA20	6EP1621-2BA00	6EP1353-0AA00	6EP1353-2BA00
Rated input voltage	400 – 500 V 3 AC	400 – 500 V 3 AC	24 V DC	120 – 230 V AC	120 – 230 V AC
– Range	320...575 V 3 AC	320...575 V 3 AC	18.5...30.2 V DC	93...264 V AC	85...132 V/170...264 V AC
Mains buffering	> 15 ms (at 400 V)	> 20 ms (at 400 V)	> 5 ms	> 10/40 ms (at 120/187 V)	> 10 ms (at 93/187 V)
Rated line frequency	50/60 Hz	50/60 Hz	–	50/60 Hz	50/60 Hz
Rated input current	0.7 – 0.6 A	1.6 – 1.3 A	1.6 A	1.6/1.0 A	2.2/0.9 A
– Inrush current (25 °C)	< 18 A	< 56 A	< 20 A with 20 ms	< 30 A, < 3 ms	< 32 A
– Recommended miniature circuit breaker	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	10 A characteristic B	10 A characteristic C, 16 A characteristic B	
Rated output voltage	12 V DC	24 V DC	12 V DC	2 x 15 V DC	24 V DC
– Tolerance	± 3%	± 3%	± 3%	± 3%	± 1%
– Setting range	12...14 V DC	24...28.8 V DC	12...14 V DC	14.5...17 V DC	3...52 V DC
Rated output current	20 A	30 A	2.5 A	2 x 3.5 A	2 – 10 A (max. 120 W)
– Derating	–	from +60 °C (1.7%/K)	–	from +45 °C (2%/K)	–
Efficiency at rated values, approx.	88%	93%	80%	80%	84 % (bei 24 V/5 A)
Parallel switching	Yes	Yes	Yes, 2 units	Yes	Yes
Electronic short-circuit protection	Yes, constant current or latching shutdown selectable		Yes, constant current	Yes, restart	Yes, constant current
Radio interference suppression (EN 55022)	Class B	Class B	Class B	Class A	Class B
Supply harmonics limitation (EN 61000-3-2)	Yes	Yes	Yes	No	Yes
Degree of protection (EN 60529)	IP 20	IP 20	IP20	IP20	IP20
Ambient temperature	–25 °C...+60 °C	–25 °C...+70 °C	0...+60 °C	0 ...+60 °C	0...+60 °C
Installation	DIN rail	DIN rail	DIN rail	Normprofilschiene	DIN rail
Dimensions (WxHxD) in mm	70 x 125 x 125	150 x 125 x 150	32,5 x 125 x 125	75 x 125 x 125	75 x 125 x 125
Weight approx.	1.2 kg	3.4 kg	0.26 kg	0.75 kg	0.9 kg
Certification	CE (cULus in preparation)	CE, cULus	CE, cULus	CE	CE, cULus

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

# SITOP expansion modules to increase system availability

			new! 			
Technical data	Signaling	Mains buffering	Redundancy			
SITOP	Signaling module <sup>1)</sup>	Buffer module <sup>2)</sup>	SITOP PSE202U redundancy module			
Order No.	6EP1961-3BA10	6EP1961-3BA01	6EP1964-2BA00	6EP1962-2BA00	6EP1961-3BA21	
Rated input voltage – Range	Contact rating 240 V AC/6 A	24 V DC 24...28.8 V DC	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	Signaling module for snapping onto the side of the basic unit SITOP modular (6EP1x3x-3BA00, 6EP1457-3BA00); automatic contacting, with floating signaling contacts for “Output voltage o.k.” and “Operating readiness o.k.”; with signal input for switching the basic unit ON/OFF remotely	Buffer module for mains buffering; parallel connection at output of 24 V basic units (6EP1x3x-3BAxx); buffering time 200 ms at 40 A to 1.6 s at 5 A load current; multiplication possible through parallel connection; maximum buffer time 10s.	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 5 A power supplies or one 10 A power supply per redundancy module.	Decoupling and limitation of the output to Class 2 limit (100 V A) of 2 power supplies 5 to 40 A.	Decoupling of two 24 V/5 A to 20 A power supplies or one 24 V/40 A power supply per redundancy module.	
Rated output current – Setting range	Not applicable	40 A	10 A (total output current)	3.5 A <sup>3)</sup>	40 A (total output current)	
Efficiency at rated values, approx.	Not applicable	Not applicable	97 %	95 %	97 %	
Parallel switching	Not applicable	Yes	No	No	No	
Electronic short-circuit protection	Not applicable	Yes	No	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	IP20	IP20	
Ambient temperature	0...+60 °C	0...+60 °C	–20...+70 °C	–20...+70 °C	0...+60 °C	
Dimensions (WxHxD) in mm	25 x 125 x 125	70 x 125 x 125	30 x 80 x 100	30 x 80 x 100	70 x 125 x 125	
Weight approx.	0.15 kg	1.2 kg	0.125 kg	0.125 kg	0.5 kg	
Certification	CE, UL, CSA	CE, UL, CSA, GL, ABS	CE, cULus	CE, cULus, NEC class 2	CE, cULus, cCSAus Class I Div 2, ATEX , GL, ABS	

<sup>1)</sup> Can only be combined with SITOP modular 6EP1\_3\_-3BA00 and 6EP1457-3BA00 power supply

<sup>2)</sup> Can only be combined with SITOP modular power supply 24 V DC

<sup>3)</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)

new!

new!



Technical data	Monitoring				
SITOP	SITOP PSE200U selectivity module		SITOP PSE200U with reporting interface		SITOP select diagnosis module
Order No.	6EP1961-2BA11	6EP1961-2BA21	6EP1961-2BA31 <sup>1)</sup>	6EP1961-2BA41 <sup>1)</sup>	6EP1961-2BA00
Rated input voltage – Range	24 V DC 22...30 V DC				24 V DC 22...30 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.		Status indication via 3-color LED per channel; remote reset with 24 V signal and reset via pushbutton per channel; reporting interface for channel-specific analysis via SIMATIC S7-function block.		Status indication via 2-color LED per channel; common reset via pushbutton, plug-in fuse per channel; status indication via 3-color LED per channel; common signaling contact.
Rated output current	4 x 3 A	4 x 10 A	4 x 3 A	4 x 10 A	4 x 10 A
– Setting range	0.5...3 A	3...10 A	0.5...3 A	3...10 A	2...10 A
Efficiency at rated values, approx.	97 %				97 %
Parallel switching	No				No
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				72 x 90 x 90
Weight approx.	0.2 kg				0.4 kg
Certification	CE, UL, cURus, cCSAus Class I Div 2, ATEX		CE, (UL, cURus, cCSAus Class I Div 2, ATEX in preparation)		CE, UL, cURus, cCSAus Class I Div 2, ATEX

<sup>1)</sup> Intended date of delivery: July 2012

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

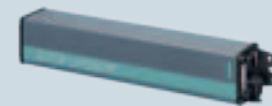
# Uninterruptible power supplies – SITOP UPS500 maintenance-free DC UPS with capacitor technology



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	5 kW	5 kW	5 kW	10 kW
Order 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...+60 °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			CE	

<sup>1)</sup> Connector set with input and output connector as well as prepared USB cable in 2 m length: Order 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

	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	2.5 kW	5 kW	5 kW	10 kW
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

							
Technical data	SITOP DC UPS, for longer power failures						
SITOP Output voltage / current	DC UPS module 24 V/6 A	DC UPS module 24 V/15 A	DC UPS module 24 V/40 A	DC UPS battery module 24 V/1.2 Ah <sup>1)</sup>	DC UPS battery module 24 V/3.2 Ah <sup>1)</sup>	DC UPS battery module 24 V/7 Ah <sup>1)</sup>	DC UPS battery module 24 V/12 Ah <sup>1)</sup>
				for DC UPS module 6 A	for DC UPS module 6 A and 15 A	for DC UPS module 6 A, 15 A and 40 A (for > 30 A to 40 A two units in parallel)	
Order No. – with serial interface – with USB interface	6EP1931-2DC21 6EP1931-2DC31 6EP1931-2DC42	6EP1931-2EC21 6EP1931-2EC31 6EP1931-2EC42	6EP1931-2FC21  6EP1931-2FC42	6EP1935-6MC01	6EP1935-6MD11	6EP1935-6ME21	6EP1935-6MF01
Input voltage	24 V DC, 22...29 V, infeed from 24 V SITOP power supply: From 24 V/0.6 A      From 24 V/5 A      From 24 V/10 A			Recomm. end-of-charge voltage: 26.4...27.3 V DC (> +20°C), 27.3...29.0 V DC (< +20°C)			
Rated input current	6 A + approx. 0.85 A with empty battery	15 A + approx. 1 A with empty battery	40 A + approx. 2.6 A with empty battery	Charging current max. 0.3 A	Charging current max. 0.8 A	Charging current max. 1.75 A	Charging current max. 3 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	6 A, charging current: typ. 0.4 A	15 A, charging current: typ. 0.7 A	40 A, charging current: typ. 2 A	6 A	15 A	30 A	30 A
Efficiency at rated values, approx.	Buffer mode: 94 %, Standby mode: 95 %	Buffer mode: 96 %, Standby mode: 96 %	Buffer mode: 97 %, Standby mode: 97 %	Not applicable	Not applicable	Not applicable	Not applicable
Overload and short-circuit protection	Electronic, automatic restart			Installed battery fuse: 7.5 A/32 V      15 A/32 V      30 A/32 V      30 A/32 V			
Parallel switching	No	No	No	Yes	Yes	Yes	Yes
Radio interference suppression (EN 55022)	Class B	Class B	Class B				
Degree of protection (EN 60529)	IP20	IP20	IP20	IP00	IP00	IP00	IP00
Ambient temperature	-25...+60 °C	-25...+60 °C	-25...+60 °C	-10...+50 °C	-10...+50 °C	-10...+50 °C	-10...+50 °C
Installation	DIN rail	DIN rail	DIN rail	DIN rail or wall mounting		Wall mounting	Wall mounting
Dimensions (WxHxD) in mm	50 x 125 x 125	50 x 125 x 125	102 x 125 x 125	96 x 106 x 108	190 x 151 x 82	186 x 168 x 121	253 x 168 x 121
Weight approx.	0.4 kg	0.4 kg	1.1 kg	1.8 kg	3.2 kg	6.0 kg	9.0 kg
Certification	CE, cULus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cULus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cULus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cURus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cURus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cURus, ATEX; cCSAus Class I Div 2, GL, ABS	CE, cURus, ATEX; cCSAus Class I Div 2, GL, ABS

<sup>1)</sup> Also available: High-temperature battery module 24 V / 2.5 Ah (6EP1935-6MD31) for ambient temperatures from -40 to +60 °C  
 Technical data subject to nominal input voltage value and +25 °C ambient temperature (unless stated otherwise)

# Selection table battery modules and buffer times

					
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 <sup>1)</sup> 2.5 Ah (6EP1935-6MD31)
1 A	30 min.	2.5 h	6 h	11 h	2 h
2 A	11 min.	45 min.	2.5 h	5 h	45 min.
3 A	4 min.	25 min.	1.5 h	3 h	30 min.
4 A	2 min.	20 min.	45 min.	2 h	20 min.
6 A	1 min.	10 min.	30 min.	1 h	13 min.
8 A	–	4 min.	20 min.	40 min.	9 min.
10 A	–	1.5 min.	15 min.	30 min.	7 min.
12 A	–	1 min.	10 min.	25 min.	5.5 min.
14 A	–	50 s	8 min.	20 min.	4.5 min.
16 A	–	40 s (15 A)	6 min.	15 min.	4 min.
20 A	–	–	3 min.	11 min.	–
25 A	–	–	2 min.	9 min.	–
30 A	–	–	1 min.	6 min.	–

<sup>1)</sup> High-temperature battery module for ambient temperatures from –40 to +60 °C  
 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 decrease of the battery voltage to 21 V (with voltage drops in the DC UPS, approx. 20.4 V DC remain for the load)

## Further information

More about SITOP:

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

Information material for downloading:

[www.siemens.com/sitop-infomaterial](http://www.siemens.com/sitop-infomaterial)

Easy selection of the suitable power supply unit with the SITOP selection tool:

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

Manuals for downloading:

[www.siemens.com/sitop/manuals](http://www.siemens.com/sitop/manuals)

CAX data (2D, 3D, circuit diagram macro) for downloading:

[www.siemens.com/sitop-cax](http://www.siemens.com/sitop-cax)

Compile all CAX data using the CAX online generator:

[www.siemens.com/cax](http://www.siemens.com/cax)

Order electronically over the Internet using the Industry Mall:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

You can find your personal contact at:

[www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

Siemens AG  
Industry Sector  
Industry Automation  
P.O. Box 48 48  
90026 NUREMBERG  
GERMANY

Subject to change without prior notice 04/12  
Order No. E80001-A2650-P310-X-7600  
Dispo 46305  
NC/120083 MI.SC.ST.XXXX.52.2.02/WS 04125.0  
Printed in Germany  
© Siemens AG 2012

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.