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Price groups
PG 581, 582, 583, 584, 585, 586, 588, 591, 593

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SITOP DC-UPS Uninterruptible Power Supply
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NEW
Click on the Article No. in the catalog PDF to access it in the Industry Mall and get all related information.

Article No.
3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N

Or directly in the Internet, e. g. www.siemens.com/product?3RA1943-2C

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Introduction

Overview

Additional information
Homepage see www.siemens.com/sitop
Industry Mall see www.siemens.com/product?SITOP
Further products see Catalog KT 10.1 "SITOP Power Supply"

					
		6EP1 SITOP compact	**6EP3 LOGO!Power**	**6EP1 SITOP lite**	**6EP1 SITOP smart**
SITOP power supplies					
Phase		1	1	1	1, 3
Rated input voltage	V	100 ... 230 AC, 110 ... 330 DC	100 ... 240 AC, 110 ... 330 DC	120/230 AC	120/230 AC, 400 ... 500 3 AC
Rated output voltage	V DC	24, 12	5, 12, 15, 24	24	12, 24
Rated output current	A	0.6 ... 6.5	0.6 ... 6.3	2.5 ... 20	2.5 ... 40
Connection		Screw terminal connection	Screw terminal connection	Screw terminal connection	Screw terminal connection
Mounting		Standard rail mounting	Standard rail mounting	Standard rail mounting	Standard rail mounting
Approval		NEC Class 2, UL, cUL, ATEX, GL	UL, cUL, ABS, GL, FM, ATEX	UL, cUL	UL, cUL, CSA, ATEX, GL
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		6EP3 • SITOP modular • PSU8600 power supply system	**6EP1 Special designs, special use**	**6EP1 Expansion modules**	**6EP1 SITOP DC-UPS uninterruptible power supplies**
SITOP power supplies					
Phase		1, 2, 3	1	1	1
Rated input voltage	V	120 ... 230/230 ... 500 AC, 120 ... 230 AC, 400 ... 500 3 AC;	120/230 AC	24 DC	24 DC
Rated output voltage	V DC	24, 36, 48	3 ... 52	U_e – approx. 0.5, U_e – approx. 1	24
Rated output current	A	5 ... 40	10	3.5 ... 20, 40, 4 x 3, 4 x 10	6 ... 40
Connection		Screw terminal connection	Screw terminal connection	Screw terminal connection	Screw terminal connection
Mounting		Standard rail mounting	Standard rail mounting	Standard rail mounting	Standard rail mounting (except: wall mounting with SITOP UPS500P)
Approval		UL, cUL, CSA, ATEX, GL, ABS	UL, cUL	NEC Class 2, UL, cUL, ATEX, GL	UL, cUL, ATEX, GL, ABS
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Overview

SITOP compact is a series of power supplies for the low performance range. Thanks to the extremely space-saving slim design, they are especially suited to distributed applications in switchboxes or in small control cabinets.

The switching power supply units are characterized by their low power loss over the entire load range. With losses being extremely small even in no-load operation, these units are predestined for supplying machines and plants which are often in stand-by mode, for example. The switching power supply units have a wide range input for AC and DC networks, with plug-in terminals that facilitate easy electrical connection.

To further increase 24 V availability, the SITOP compact power supply units can be combined with DC-UPS, redundancy and selectivity modules, see page 15/11 and 15/12.

- Small mounting area thanks to narrow design
- Single-phase wide range input for 85 V to 264 V AC and 110 V to 300 V DC
- High degree of efficiency over the entire load range, up to 28% energy savings compared to comparable units
- Low energy consumption in no-load operation and stand-by, possible energy savings of up to 53%
- Adjustable output voltage
- Green LED for "Output voltage OK"
- Plug-in terminals
- Temperature range from –20 °C to +70 °C
- Extensive certification, such as UL, ATEX, GL and NEC Class 2 (24 V/3.7 A)

Selection and ordering data

	Version	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies											
 6EP1331-5BA00	**0.6 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	0.6 A	22.5 x 80 x 100	1	**6EP1331-5BA00**		1	1 unit	584
 6EP1331-5BA10	**1.3 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	1.3 A	30 x 80 x 100	1	**6EP1331-5BA10**		1	1 unit	584
 6EP1332-5BA00	**2.5 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	2.5 A	45 x 80 x 100	1	**6EP1332-5BA00**		1	1 unit	584
 6EP1332-5BA10	**4 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	4 A	52.5 x 80 x 100	1	**6EP1332-5BA10**		1	1 unit	584
 6EP1332-5BA20	**3.7 A NEC Class 2**	120 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	3.7 A	52.5 x 80 x 100	1	**6EP1332-5BA20**		1	1 unit	584
12 V power supplies											
 6EP1321-5BA00	**2 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	2 A	30 x 80 x 100	1	**6EP1321-5BA00**		1	1 unit	584
 6EP1322-5BA10	**6.5 A**	100 ... 230 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	6.5 A	52.5 x 80 x 100	1	**6EP1322-5BA10**		1	1 unit	584

*** You can order this quantity or a multiple thereof.**
Illustrations are approximate

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Single-phase

Overview

Our new miniature power supply units in the same design as the logic modules offer great performance in the smallest of spaces: Efficiency has been improved across the entire load range, and the low power losses in no-load operation ensure efficient operation.

The wide-range input for single-phase networks as well as operation with direct voltage, the wide operating temperature range, comprehensive certifications as well as the switch-on behavior optimized for capacitive loads makes them suitable for universal use.

These reliable power supplies with their flat, stepped profile can be used extremely flexibly in numerous applications such as in distribution boards, for example.

To further increase 24 V availability, the LOGO!Power power supply units can be combined with DC-UPS, redundancy and selectivity modules, see page 15/11 and 15/12.

- Single-phase wide range input from 85 V to 264 V AC and 110 V to 300 V DC
- Low width from a minimum of 18 mm to a maximum of 72 mm saves space in the control cabinet
- Higher efficiency level up to 90% over the entire power range and ERP-compliant no-load losses of < 0.3 W
- Flexible mounting with standard rail or wall mounting in different installation positions
- Load monitoring due to real-time measurement of the output current without disconnecting the cable, i.e. without interrupting the DC supply
- Reliable thanks to assured connection of heavy loads when starting up as well as constant current in the event of overload
- Wide temperature range from -25 °C to +70 °C
- Comprehensive certification, such as cULus, CB, FM, ATEX, cC-SAus Class I Div. 2, GL and ABS

Selection and ordering data

	Version	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	5 V power supplies										
 6EP3310-6SB00-0AY0	**3 A**	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	5 V DC ± 3%	3 A	36 x 90 x 53	1	**6EP3310-6SB00-0AY0**		1	1 unit	583
	6.3 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	5 V DC ± 3%	6.3 A	54 x 90 x 53	1	**6EP3311-6SB00-0AY0**		1	1 unit	583
	12 V power supplies										
 6EP3320-6SB00-0AY0	**0.9 A**	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	0.9 A	18 x 90 x 53	1	**6EP3320-6SB00-0AY0**		1	1 unit	583
	1.9 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	1.9 A	36 x 90 x 53	1	**6EP3321-6SB00-0AY0**		1	1 unit	583
	4.5 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	12 V DC ± 3%	4.5 A	54 x 90 x 53	1	**6EP3322-6SB00-0AY0**		1	1 unit	583
	15 V power supplies										
 6EP3321-6SB10-0AY0	**1.9 A**	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	15 V DC ± 3%	1.9 A	36 x 90 x 53	1	**6EP3321-6SB10-0AY0**		1	1 unit	583
	4 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	15 V DC ± 3%	4 A	54 x 90 x 53	1	**6EP3322-6SB10-0AY0**		1	1 unit	583
	24 V power supplies										
 6EP3332-6SB00-0AY0	**0.6 A**	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	0.6 A	18 x 90 x 53	1	**6EP3330-6SB00-0AY0**		1	1 unit	583
	1.3 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	1.3 A	36 x 90 x 53	1	**6EP3331-6SB00-0AY0**		1	1 unit	583
	2.5 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	2.5 A	54 x 90 x 53	1	**6EP3332-6SB00-0AY0**		1	1 unit	583
	4 A	100 ... 240 V AC (85 ... 264 V AC/ 110 ... 300 V DC)	24 V DC ± 3%	4 A	72 x 90 x 53	1	**6EP3333-6SB00-0AY0**		1	1 unit	583

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Overview

The SITOP lite power supplies are designed for standard requirements in industrial environments and offer all important functions at a favorable price.

The wide range input with manual switchover supports connection to a variety of single-phase supply systems.

Thanks to the slim design, the power supplies have a low space requirement on the standard mounting rail, and their excellent degree of efficiency ensures low thermal losses in the control cabinet.

To further increase 24 V availability, the SITOP lite power supplies can be combined with DC UPS, redundancy and selectivity modules, see page 15/11 and 15/12.

- 24 V/2.5 A, 5 A, 10 A and 20 A for industrial applications with standard requirements
- Single-phase wide range input with manual switchover
- Narrow width
- Excellent degree of efficiency
- Green LED for "24 V OK"
- Can be switched in parallel
- No lateral installation clearances required
- Ambient temperature range from 0 °C to 60 °C (from 45 °C with derating)
- Cooling through natural convection
- Short-circuit and overload protection
- Certification in accordance with CE, cULus and CD

Selection and ordering data

	Version	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies											
 6EP1332-1LB00	**2.5 A**	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	2.5 A	32.5 x 125 x 120	1	**6EP1332-1LB00**		1	1 unit	593
 6EP1333-1LB00	**5 A**	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	5 A	50 x 125 x 120	1	**6EP1333-1LB00**		1	1 unit	593
 6EP1334-1LB00	**10 A**	120/230 V AC (93 ... 132 V AC/ 187 ... 264 V AC)	24 V DC ± 3%	10 A	70 x 125 x 120	1	**6EP1334-1LB00**		1	1 unit	593
 6EP1336-1LB00	**20 A** NEW	100-230 V AC (85...264 V AC/ 88...370 V DC)	24 V DC ± 3%	20 A	110 x 125 x 125	1	**6EP1336-1LB00**		1	1 unit	593

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Illustrations are approximate

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Overview

SITOP smart are the universal and powerful standard power supplies for mechanical and plant engineering.

Despite their compact design, they offer excellent overload behavior: Thanks to a power boost of 150%, loads with high power consumption can be connected without any problems and the permanent overload capability of 120% offers power reserves in case of expansions.

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

To further increase 24 V availability, the SITOP smart power supplies can be combined with buffer, DC-UPS, redundancy and selectivity modules, see page 15/11 and 15/12.

- Single-phase and three-phase standard applications up to 40 A
- Compact design, no lateral clearances required
- Extra power with 1.5 times the rated current (5 s/min) for brief operational overloads
- Permanent overload capability with 1.2 times the rated current up to 45 °C ambient temperature
- Adjustable output voltage for compensating voltage drops
- Parallel switching option to increase performance
- High degree of efficiency up to 91.5%
- Wide temperature range from -25 °C or 0 °C to +70 °C
- Comprehensive certification such as cULus, cCSAus, ATEX, IECEx and GL

Selection and ordering data

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies										
 6EP1332-2BA20	**2.5 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	32.5 x 125 x 120	1	**6EP1332-2BA20**		1	1 unit	582
 6EP1333-2BA20	Limitation of input current harmonics according to IEC 61000-3-2 **5 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	50 x 125 x 120	1	**6EP1333-2BA20**		1	1 unit	582
 6EP1334-2BA20	Limitation of input current harmonics according to IEC 61000-3-2 **10 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	70 x 125 x 120	1	**6EP1334-2BA20**		1	1 unit	582
 6EP1336-2BA10	**20 A**	120/230 V AC (85 ... 132 V AC/ 176 ... 264 V AC)	24 V DC ± 3%	115 x 145 x 150	1	**6EP1336-2BA10**		1	1 unit	582
 6EP1433-2BA20	**5 A**	400 ... 500 V AC (340 ... 550 V 3 AC)	24 V DC ± 3%	50 x 125 x 120	1	**6EP1433-2BA20**		1	1 unit	582
 6EP1434-2BA20	**10 A**	400 ... 500 V AC (340 ... 550 V 3 AC)	24 V DC ± 3%	70 x 125 x 120	1	**6EP1434-2BA20**		1	1 unit	582
 6EP1436-2BA10	**20 A**	400 ... 500 V AC (340 ... 550 V 3 AC)	24 V DC ± 3%	90 x 145 x 150	1	**6EP1436-2BA10**		1	1 unit	582
 6EP1437-2BA20	**40 A**	400 ... 500 V 3 AC (360 ... 550 V 3 AC)	24 V DC ± 3%	150 x 145 x 150	1	**6EP1437-2BA20**		1	1 unit	582

* You can order this quantity or a multiple thereof.
Illustrations are approximate

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Overview

SITOP modular are the technology power supplies for demanding solutions and provide maximum functionality for use in complex systems and machines.

The wide-range input enables connection to any power system in the world and ensures high safety even in the event of extreme voltage fluctuations. The power boost provides up to three times the rated current for brief periods, and with the extra power of 150%, loads with high power consumption can be connected without problems. And in the event of an overload there is a choice between constant current or automatic restart. The very high degree of efficiency keeps energy consumption and heating in the control cabinet low, and the compact metal housing also saves space.

To further increase 24 V availability, the SITOP modular power supply units can be combined with buffer, UPS, redundancy and selectivity modules, see page 15/11 and 15/12.

- For demanding applications from 5 A to 40 A
- 48 V/10 A and 20 A enable small conductor cross-sections
- Extremely slim design – no lateral clearances required
- Extra power function for brief operational overloads
- Power boost for tripping protective devices
- Selectable short-circuit behavior
- Optional symmetrical load distribution for parallel operation
- Very high degree of efficiency up to 94%
- Operating status indicated by 3 LEDs
- Wide temperature range from -25 °C to +70 °C
- Extensive certification such as cULus, ATEX, IECex or GL

Selection and ordering data

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies										
SITOP modular, single-phase and single- and two-phase										
 6EP3333-8SB00-0AY0	**5 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	45 x 125 x 125	1	**6EP3333-8SB00-0AY0**		1	1 unit	581
 6EP3334-8SB00-0AY0	**10 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	55 x 125 x 125	1	**6EP3334-8SB00-0AY0**		1	1 unit	581
 6EP1333-3BA10	**5 A**	120 ... 230 V AC/ 230 ... 500 V (85 ... 264 V AC/ 176 ... 550 V AC)	24 V DC ± 3%	70 x 125 x 125	1	**6EP1333-3BA10**		1	1 unit	581
 6EP1334-3BA10	**10 A**	120 ... 230 V AC/ 230 ... 500 V (85 ... 264 V AC/ 176 ... 550 V AC)	24 V DC ± 3%	90 x 125 x 125	1	**6EP1334-3BA10**		1	1 unit	581
 6EP1336-3BA10	**20 A**	120 ... 230 V AC (85 ... 275 V AC or 88 ... 350 V DC)	24 V DC ± 3%	90 x 125 x 125	1	**6EP1336-3BA10**		1	1 unit	581
 6EP3337-8SB00-0AY0	**40 A**	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	24 V DC ± 3%	145 x 145 x 150	1	**6EP3337-8SB00-0AY0**		1	1 unit	581

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Illustrations are approximate

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Single-, two- and three-phase

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Power supplies 24 V (continued)										
	SITOP modular, three-phase									
 6EP3436-8SB00-0AY0	**20 A**	400 ... 500 V 3 AC (320 ... 575 V 3 AC)	24 V DC ± 3%	70 x 125 x 125	1	**6EP3436-8SB00-0AY0**		1	1 unit	581
 6EP1437-3BA10	**40 A**	400 ... 500 V 3 AC (320 ... 575 V 3 AC)	24 V DC ± 3%	150 x 125 x 150	1	**6EP1437-3BA10**		1	1 unit	581
36 V power supplies										
	SITOP modular, three-phase									
 6EP3446-8SB10-0AY0	**13 A** NEW	400 ... 500 V 3 AC (320 ... 575 V 3 AC)	13 V DC ± 3%	70 x 125 x 125	1	**6EP3446-8SB10-0AY0**		1	1 unit	581
Power supplies 48 V										
	SITOP modular, three-phase									
 6EP3446-8SB00-0AY0	**10 A** NEW	400 ... 500 V 3 AC (320 ... 575 V 3 AC)	48 V DC ± 3%	70 x 125 x 125	1	**6EP3446-8SB00-0AY0**		1	1 unit	581
 6EP1457-3BA00	**20 A**	400 ... 500 V 3 AC (320 ... 550 V 3 AC)	48 V DC ± 3%	240 x 125 x 125	1	**6EP1457-3BA00**		1	1 unit	581

* You can order this quantity or a multiple thereof.
Illustrations are approximate

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Overview

The three-phase basic units of the SITOP PSU8600 power supply system accommodate within their extremely compact width an Ethernet/PROFINET interface as well as four individually parameterizable outputs (voltage and current threshold) with selective monitoring.

Without wiring overhead, further modules from the modular system can be added to expand the number of outputs (CNX8600) or to increase the mains buffering time (BUF8600) according to requirements.

Comprehensive diagnostic and maintenance information is available via PROFINET. It can be evaluated directly in SIMATIC S7 and visualized in SIMATIC WinCC.

Energy management is also optimally supported by collecting the energy data for each output as well as individual activation and deactivation of the outputs via PROFIenergy.

- Three-phase wide-range input 400 to 500 V 3 AC for global use
- Extremely slim design with very high efficiency of up to 94%
- Versions with a configurable output with up to 20 A or 40 A and selective monitoring.
- Versions with four integrated, individually configured outputs with up to 5 A or 10 A each and selective monitoring
- Voltage and response threshold can be set separately and are infinitely adjustable for each output
- Extra power with 1.5 times the rated current (5 s/min) for brief functional overload
- Integrated Ethernet/PROFINET interface (2 ports)
- Easy configuration in the TIA Portal
- Comprehensive diagnostic information during operation
- Outputs can be deactivated and activated selectively via PROFIenergy
- Individual expansion options from the modular system (CNX8600 expansion modules, BUF8600 buffer modules) without wiring overhead

Selection and ordering data

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
24 V power supplies										
 6EP3437-8MB00-2CY0										
SITOP PSU8600 power supply with Ethernet/PROFINET interface										
20 A	400 ... 500 V 3 AC	24 V DC ± 3%		80 x 125 x 150	1	**6EP3436-8SB00-2AY0**		1	1 unit	58P
40 A				125 x 125 x 150	1	**6EP3437-8SB00-2AY0**		1	1 unit	58P
20 A (4 x 5 A)				100 x 125 x 150	1	**6EP3436-8MB00-2CY0**		1	1 unit	58P
40 A (4 x 10 A)				125 x 125 x 150	1	**6EP3437-8MB00-2CY0**		1	1 unit	58P
 6EP4436-8XB00-0CY0										
Modular system, expansion of outputs (CNX8600)										
4 x 5 A	--	24 V DC ± 3%		60 x 125 x 150	1	**6EP4436-8XB00-0CY0**		1	1 unit	58P
4 x 10 A				60 x 125 x 150	1	**6EP4437-8XB00-0CY0**		1	1 unit	58P
 6EP4297-8HB00-0XY0										
Modular system, buffering (BUF8600)										
100 ms/ 40 A	--	24 V DC ± 3%		60 x 125 x 150	1	**6EP4297-8HB00-0XY0**		1	1 unit	58P
300 ms/ 40 A				125 x 125 x 150	1	**6EP4297-8HB10-0XY0**		1	1 unit	58P
 6EP4293-8HB00-0XY0										
4 s/40 A				60 x 125 x 150	1	**6EP4293-8HB00-0XY0**		1	1 unit	58P
10 s/40 A				125 x 125 x 150	1	**6EP4295-8HB00-0XY0**		1	1 unit	58P

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Illustrations are approximate

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Single-phase

Overview

SITOP flexi with steplessly adjustable output voltage:
One standard unit for various special voltages.

Selection and ordering data

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W x H x D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
3 ... 52 V power supplies										
 6EP1353-2BA00	Limitation of input current harmonics according to IEC 61000-3-2; adjustable output voltage 3 V to 52 V, output max. 10 A or 120 W									
	max. 10 A or 120 W	120/230 V AC (85 ... 132 V AC/ 170 ... 264 V AC)	3 ... 52 V DC ± 1%	75 x 125 x 125	►	**6EP1353-2BA00**		1	1 unit	582

* You can order this quantity or a multiple thereof.
Illustrations are approximate

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Overview

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

The redundancy module disconnects two 24 V power supply units of the same type, enabling the configuration of a redundant 24 V power supply. If a power supply fails, the 24 V supply is reliably maintained. Signaling takes place via LED as well as signaling contacts whereby the switching threshold for LED and signaling contacts can be adjusted.

For the redundant configuration, power supplies up to:

- 5 A → one redundancy module with 10 A summation current
- 10 A → two redundancy modules with 10 A summation current
- 20 A → one redundancy module with 40 A summation current
- 40 A → two redundancy modules with 40 A summation current

The buffer module bridges brief mains failures for up to several seconds for SITOP smart or SITOP modular 24 V power supply units. Maintenance-free capacitors are used as energy stores.

Buffering times:

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

To increase the buffer time (max. 10 s), up to 8 buffer modules can be connected in parallel. To bridge longer mains failures we recommend using uninterruptible power supplies with capacitors (up into the minutes range) or with battery modules (up into the hours range).

Selection and ordering data

	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP PSE202U redundancy module										
 6EP1964-2BA00	24 V DC (19 ... 29 V DC)	U_e – approx. 0.5 V	10 A (Summation current)	30 × 80 × 100	1	**6EP1964-2BA00**		1	1 unit	588
 6EP1962-2BA00	24 V DC (19 ... 29 V DC)	U_e – approx. 0.5 V	3.5 A (NEC Class 2)	30 × 80 × 100	1	**6EP1962-2BA00**		1	1 unit	588
 6EP1961-3BA21	24 V DC (24 ... 28.8 V DC)	U_e – approx. 0.5 V	40 A (Summation current)	70 × 125 × 125	1	**6EP1961-3BA21**		1	1 unit	588

*** You can order this quantity or a multiple thereof.**
Illustrations are approximate

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Selectivity modules / buffer modules

Overview

The SITOP PSE200U selectivity modules and the SITOP select diagnostics module are used in combination with 24 V power supplies for distributing the load current among several current branches and for monitoring the individual partial currents.

Faults caused by overload or short circuits in individual branches are detected and selectively switched off so that the remaining load current paths remain unaffected. Rapid fault diagnosis is achieved and downtimes are minimized.

Signaling is performed via a group alarm contact or single-channel signaling. The selectivity modules with single-channel signaling output the status of the four channels cyclically by means of a serial code which can be read in by a digital PLC input.

Function blocks for SIMATIC S7-1500/1200/300/400 and for SIMOTION CPUs are available free of charge for evaluation purposes, see https://support.industry.siemens.com/cs/ww/en/view/61450284.

Selection and ordering data

	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP PSE200U selectivity modules with summation signal										
 6EP1961-2BA.1	24 V DC (22 ... 30 V DC)	U_e - 0.2 V	4 x 3 A (0.5 ... 3 A)	72 × 80 × 72	1	**6EP1961-2BA11**		1	1 unit	586
	24 V DC (22 ... 30 V DC) NEW	U_e - 0.2 V	4 x 3 A (0.5 ... 3 A NEC Class 2)	72 × 80 × 72	1	**6EP1961-2BA51**		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_e- 0.2 V	4 x 10 A (3 ... 10 A)	72 × 80 × 72	1	**6EP1961-2BA21**		1	1 unit	586
SITOP PSE200U selectivity modules with single-channel signaling										
 6EP1961-2BA.1	24 V DC (22 ... 30 V DC)	U_e - 0.2 V	4 x 3 A (0.5 ... 3 A)	72 × 80 × 72	1	**6EP1961-2BA31**		1	1 unit	586
	24 V DC (22 ... 30 V DC) NEW	U_e - 0.2 V	4 x 3 A (0.5 ... 3 A NEC Class 2)	72 × 80 × 72	1	**6EP1961-2BA61**		1	1 unit	586
	24 V DC (22 ... 30 V DC)	U_e - 0.2 V	4 x 10 A (3 ... 10 A)	72 × 80 × 72	1	**6EP1961-2BA41**		1	1 unit	586
SITOP select diagnostics modules										
 6EP1961-2BA00	24 V DC (22 ... 30 V DC)	U_e - 0.3 V	4 x 10 A (2 ... 10 A)	72 × 90 × 90	▶	**6EP1961-2BA00**		1	1 unit	586
Buffer modules										
 6EP1961-3BA01	24 V DC (24 .. 28.8 V DC)	U_e – approx. 1 V	40 A	70 × 125 × 125	1	**6EP1961-3BA01**		1	1 unit	588

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Illustrations are approximate

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Overview

To combat prolonged power failures, the 24 V SITOP power supply units can be upgraded into a 24 V DC uninterruptible power supply.

SITOP offers two systems with different energy stores for this purpose:

- Capacitors for 24 V buffering in the minute range
- Battery modules which provide a buffer in the hours range

The DC UPS systems are used, for example, in machine tool manufacturing, in the textile industry, on all types of production lines and filling plants, and in conjunction with 24 V industrial PCs. They prevent the negative consequences which often result from mains failures.

To bridge brief power failures, 24 V SITOP power supply units can be expanded with a SITOP UPS500 uninterruptible DC power supply (DC-UPS).

In PC-based automation solutions, the highly capacitive double-layer capacitors of the SITOP UPS500 supply enough energy to safeguard operating and application data and close software applications in a defined manner.

- Buffering into the minutes range depending on the load current and DC-UPS configuration
- SITOP UPS500S basic units for standard mounting rails can be combined with up to three UPS501S expansion modules
- SITOP UPS500P in degree of protection IP65 for distributed applications
- Absolutely maintenance-free double-layer capacitors
- Short charging times
- Long service life even at high ambient temperatures
- No ventilation of the installation location required
- USB interface for PC communication
- Easy PC integration thanks to free software tool





	SITOP UPS500S/UPS501S configurations								**UPS500P**	
Basic unit	2.5 kWs	5 kWs	2.5 kWs	5 kWs	2.5 kWs	5 kWs	2.5 kWs	5 kWs	5 kWs	10 kWs
Expansion modules	--	--	1 x 5 kWs	1 x 5 kWs	2 x 5 kWs	2 x 5 kWs	3 x 5 kWs	3 x 5 kWs	--	--
Total energy	2.5 kWs	5 kWs	7.5 kWs	10 kWs	12.5 kWs	15 kWs	17.5 kWs	20 kWs	5 kWs	10 kWs
Load current	**Buffer times**									
0.5 A	134 s	236 s	390 s	478 s	632 s	748 s	851 s	1007 s	284 s	647 s
0.8 A	90 s	167 s	266 s	346 s	440 s	527 s	580 s	706 s	190 s	435 s
1 A	75 s	138 s	219 s	296 s	365 s	414 s	490 s	572 s	153 s	351 s
2 A	38 s	76 s	122 s	156 s	203 s	230 s	265 s	306 s	80 s	152 s
3 A	26 s	52 s	82 s	106 s	136 s	159 s	186 s	213 s	53 s	108 s
4 A	19 s	39 s	61 s	81 s	101 s	120 s	139 s	160 s	40 s	84 s
5 A	15 s	31 s	49 s	65 s	81 s	95 s	111 s	130 s	30 s	68 s
6 A	12 s	26 s	40 s	55 s	67 s	80 s	94 s	106 s	25 s	57 s
7 A	10 s	21 s	34 s	47 s	58 s	69 s	81 s	82 s	21 s	49 s
8 A	8 s	18 s	29 s	40 s	50 s	59 s	69 s	79 s	--	--
10 A	6 s	15 s	23 s	32 s	39 s	47 s	54 s	62 s	--	--
12 A	4 s	12 s	19 s	26 s	32 s	38 s	44 s	52 s	--	--
15 A	3 s	9 s	14 s	20 s	25 s	30 s	35 s	40 s	--	--

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DC-UPS with capacitors

Selection and ordering data

	Version	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Rated current $I_{a\ rated}$	Dimensions (W × H × D) mm	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SITOP UPS500S											
	Basic units 15 A										
	**2.5 kWs**	24 V DC (22 ... 29 V DC) Infeed through SITOP 24 V DC	24 V DC ± 3%	15.2 A + approx. 2.3 A (charging mode)	120 × 125 × 125	1	**6EP1933-2EC41**		1	1 unit	585
6EP1933-2EC.1, 6EP1935-5PG01	**5 kWs**				120 × 125 × 125	1	**6EP1933-2EC51**		1	1 unit	585
	SITOP UPS501 expansion modules										
	5 kWs	Infeed through basic unit	--	--	70 × 125 × 125	1	**6EP1935-5PG01**		1	1 unit	585
SITOP UPS500P											
	Basic units 7 A, degree of protection IP65										
 6EP1933-2NC01	**5 kWs**	24 V DC (22.5 ... 29 V DC) Infeed through SITOP 24 V DC	24 V DC ± 3%	7 A + approx. 2 A (charging mode)	400 (without plug) x 80 x 80	X	**6EP1933-2NC01**		1	1 unit	585
 6EP1933-2NC11	**10 kWs**				470 (without plug) x 80 x 80	X	**6EP1933-2NC11**		1	1 unit	585
Accessories											
	Connector set for SITOP UPS500P With input and output connector and assembled USB cable 2 m in length					1	**6EP1975-2ES00**		1	1 unit	591

Note:

For DC UPS with battery modules, see from page 15/15 onwards.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

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Overview

To bridge longer power failures, 24 V SITOP power supply units can be expanded with a SITOP UPS1600 uninterruptible DC power supply (DC-UPS) and SITOP UPS1100 battery modules.

Intelligent battery management using Energy Storage Link automatically detects the UPS1100 energy storage device, and ensures optimum temperature-controlled charging and continuous monitoring. The compact DC-UPS modules have overload capability, for example, to supply the inrush current of industrial PCs. They enable starting from the battery for stand-alone operation.

The DC-UPS communicates openly through USB or Ethernet/PROFINET and can be easily integrated into the PC or PLC world. Complete integration in TIA offers user-friendly engineering in the TIA Portal and is supported by ready-to-use function blocks for S7 user programs and WinCC faceplates for rapid visualization.

Use of the SITOP UPS manager also enables easy monitoring and configuration in PC systems, e.g. the shutting down of several PCs in accordance with the master-slave principle.

- 24 V buffering for a few hours for continuing processes
- Open communication via USB or two Ethernet/PROFINET ports
- High overload capability for mains and buffering operation
- Intelligent battery management using Energy Storage Link: Automatic detection of the battery modules and selection of the optimum, temperature-controlled charging curve, monitoring of readiness, incoming cable, aging and charge status
- All diagnostic data and alarm messages are available via USB and Ethernet/PROFINET
- Starting from the battery module supports stand-alone mode, e.g. for starting generators
- Remote monitoring via integrated web server
- SITOP UPS Manager (free software download) supports configuration and monitoring on PC-based systems, see https://support.industry.siemens.com/cs/ww/en/view/75854607
- Complete integration in TIA:
  - User-friendly engineering in the TIA Portal, see https://support.automation.siemens.com/WW/view/en/75854606
  - SIMATIC S7 function blocks for integration in user programs (free download), see https://support.industry.siemens.com/cs/ww/en/view/78817848
  - Ready-to-use "faceplates" for SIMATIC Panels and SIMATIC WinCC (free download), see https://support.industry.siemens.com/cs/de/en/view/78817848

Selection and ordering data

	Rated current $I_{a\ rated}$	Inputs Rated voltage $U_{e\ rated}$	Outputs Rated voltage $U_{a\ rated}$	Dimensions (W × H × D)	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
				mm	d					
SITOP UPS1600										
 6EP4134-3AB00-.AY0	**10 A**	24 V DC (21 ... 29 V DC)	24 V DC	50 × 125 × 125						
	• SITOP UPS1600				3	**6EP4134-3AB00-0AY0**		1	1 unit	585
	- With USB interface				3	**6EP4134-3AB00-1AY0**		1	1 unit	585
	- With Ethernet/PROFINET				3	**6EP4134-3AB00-2AY0**		1	1 unit	585
 6EP4136-3AB00-.AY0	**20 A**	24 V DC (21 ... 29 V DC)	24 V DC	50 × 125 × 125						
	• SITOP UPS1600				3	**6EP4136-3AB00-0AY0**		1	1 unit	585
	- With USB interface				3	**6EP4136-3AB00-1AY0**		1	1 unit	585
	- With Ethernet/PROFINET				3	**6EP4136-3AB00-2AY0**		1	1 unit	585
 6EP4137-3AB00-.AY0	**40 A**	24 V DC (21 ... 29 V DC)	24 V DC	70 × 125 × 150						
	• SITOP UPS1600				3	**6EP4137-3AB00-0AY0**		1	1 unit	585
	- With USB interface				3	**6EP4137-3AB00-1AY0**		1	1 unit	585
	- With Ethernet/PROFINET				3	**6EP4137-3AB00-2AY0**		1	1 unit	585

*** You can order this quantity or a multiple thereof.**
Illustrations are approximate

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SITOP UPS1100 battery modules

Overview

SITOP UPS1100 maintenance-free battery modules with 1.2 Ah to 12 Ah for SITOP UPS1600 DC-UPS modules. The intelligent UPS1600 battery management charges the UPS1100 with the optimal, temperature-controlled charging characteristics and monitors the status (operating data and diagnostics information) via the energy storage link of the connected battery modules.

For longer buffer times, up to six battery modules can be connected in parallel. Mounting is on a standard mounting rail or directly on a wall.








Battery modules	SITOP UPS1100 24 V/1.2 Ah 6EP4131-0GB00-0AY0	SITOP UPS1100 24 V/2.5 Ah high temperature 6EP4132-GB00-0AY0	SITOP UPS1100 24 V/3.2 Ah 6EP4133-0GB00-0AY0	SITOP UPS1100 24 V/5 Ah LiFePo 6EP4133-0JB00-0AY0	SITOP UPS1100 24 V/7 Ah 6EP4134-0GB00-0AY0	SITOP UPS1100 24 V/12 Ah 6EP4135-0GB00-0AY0
Load current	**Buffering times[1)]**					
1 A	27 min	1 h 30 min	2 h	4 h	5 h	8 h 30 min
2 A	14 min	50 min	1 h	2 h 10 min	2 h 40 min	4 h 30 min
3 A	10 min	36 min	45 min	1 h 30 min	1 h 50 min	3 h 10 min
4 A	7 min 50 s	26 min	34 min	1 h 10 min	1 h 20 min	2 h 30 min
6 A	4 min 40 s	15 min	21 min	48 min	48 min	1 h 30 min
8 A	3 min	11 min	15 min	37 min	34 min	1 h
10 A	1 min 30 s	6 min 40 s	9 min 30 s	26 min	21 min	42 min
12 A	--	5 min 40 s	8 min 10 s	23 min	19 min	37 min
14 A	--	4 min 40 s	6 min 50 s	21 min	16 min	32 min
16 A	--	3 min 40 s	5 min 30 s	18 min	13 min	27 min
20 A	--	1 min 40 s	2 min 50 s	13 min	7 min 50 s	17 min
30 A	--	--	--	--	3 min 50 s	10 min
40 A	--	--	--	--	1 min 40 s	5 min 30 s

1) The determination of the buffer times is based on the discharge period of new and completely charged battery modules with a battery temperature of not less than +25 °C until shutdown of the DC UPS (19 V).

Buffer times for additional values can be determined using the SITOP Selection Tool, see www.siemens.com/sitop-selection-tool.

Selection and ordering data

	Rated current $I_{a\ rated}$	Dimensions (W × H × D)	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	A	mm	d					
SITOP UPS1100 battery modules								
 6EP4131-0GB00-0AY0	***For UPS1600 10 A***							
	1.2 Ah	89 × 130 × 107	3	**6EP4131-0GB00-0AY0**		1	1 unit	585
 6EP4133-0JB00-0AY0	***For UPS1600 10 A and 20 A***							
	3.2 Ah	190 × 169 × 79	3	**6EP4133-0GB00-0AY0**		1	1 unit	585
	5 Ah LiFePo	189 × 186 × 113	1	**6EP4133-0JB00-0AY0**		1	1 unit	585
	7 Ah	186 × 186 × 110	3	**6EP4134-0GB00-0AY0**		1	1 unit	585
 6EP4135-0GB00-0AY0	***For UPS1600 20 A and 40 A***							
	12 Ah	253 × 186 × 110	3	**6EP4135-0GB00-0AY0**		1	1 unit	585
SITOP UPS1100 battery modules, high-temperature								
 6EP4132-0GB00-0AY0	***For UPS1600 10 A and 20 A***							
	2.5 Ah	265 x 115 x 76	3	**6EP4132-0GB00-0AY0**		1	1 unit	585

* You can order this quantity or a multiple thereof.
Illustrations are approximate