Special design PSU300B	SITOP smart PSU300S	SITOP modular PSU300M	SITOP modular
30 A	40 A	40 A	40 A
6EP1437-3BA20	6EP1437-2BA20	6EP1437-3BA10 [1]	6EP1437-3BA00 [1] [2]
			
For battery charging optimized power supply with three-phase wide-range input for global use; slim design; with integrated signaling contact for "24 V OK", functional expansion possible using add-on modules.	High-performance, standard power supply for 3-phase networks 400-500 V 3 AC, high overload capability through extra power with 1.5 times the rated current for 5 s and continuous 120 % output power to +45 °C ambient temperature.	The modular power supply with 3-phase wide-range input for global use; slim design; with 50 % extra power and switchable output characteristic; with integrated signaling contact for "24 V OK"; functional expansion possible using add-on modules.	Modular power supply with 3-phase wide-range input for use around the world in a wide variety of applications; functional expansion possible using add-on modules.

Expansion modules, such as redundancy modules or selectivity modules for the protection of 24 V feeds (chapter 10), and DC UPS for additional protection against power failures (chapter 11)

Special design PSU300B	SITOP smart PSU300S	SITOP modular PSU300M	SITOP modular
3-phase AC **400 ... 500 V 3 AC**	3-phase AC **400 ... 500 V 3 AC**	3-phase AC **400 ... 500 V 3 AC**	3-phase AC **400 ... 500 V 3 AC** Startup from U_{in} > 340 V
320 … 575 V 20 ms at U_{in} = 400 V 50 Hz 60 Hz 47 ... 63 Hz	340 … 550 V 6 ms at U_{in} = 400 V 50 Hz 60 Hz 47 … 63 Hz	320 … 575 V 15 ms at U_{in} = 400 V 50 Hz 60 Hz 47 ... 63 Hz	320 … 550 V 2.3 x $U_{in\ rated}$, 1.3 ms 6 ms at U_{in} = 400 V 50 Hz 60 Hz 47 … 63 Hz
1.6 A 1.3 A	1.7 A 1.5 A	2.6 A 2.1 A	2.2 A
max. 56 A 2.24 A^2s	max. 60 A 3.4 A^2s	max. 56 A 2.24 A^2s	max. 70 A 2.8 A^2s
None Required: 3-pole coupled miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10, (setting 3 A) or 3RV2711-1DD10 (UL 489)	None Required: 3-pole coupled miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10, (setting 3 A) or 3RV2711-1DD10 (UL 489)	None Required: 3-pole coupled miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10, (setting 3 A) or 3RV2711-1DD10 (UL 489)	None Required: 3-pole coupled miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10, (setting 3 A) or 3RV2711-1DD10 (UL 489)
Controlled, isolated DC voltage **24 V** 3 % 0.1 % 0.1 % Max. 100 mV Max. 200 mV	Controlled, isolated DC voltage **24 V** 3 % 1 % 2 % Max. 150 mV Max. 240 mV	Controlled, isolated DC voltage **24 V** 3 % 0.1 % 0.2 % Max. 100 mV Max. 200 mV	Controlled, isolated DC voltage **24 V** 3 % 0.1 % 0.2 % Max. 100 mV Max. 200 mV

[1] SIPLUS module, see page 14/4.

[2] SITOP modular plus 6EP1336-3BA00-8AA0, PCB with protective coating.

Special design PSU300B	SITOP smart PSU300S	SITOP modular PSU300M	SITOP modular
30 A	40 A	40 A	40 A
6EP1437-3BA20	6EP1437-2BA20	6EP1437-3BA10	6EP1437-3BA00
24 … 28.8 V Yes via potentiometer Green LED for 24 V OK Relay contact (NO contact, rating 60 V DC/0.3 A) for 24 V OK No overshoot of U_{out} (soft start)	24 … 28 V Yes via potentiometer Max. 960 W Green LED for 24 V OK Relay contact (NO contact, rating 60 V DC/0.3 A) for 24 V OK No overshoot of U_{out} (soft start)	24 … 28.8 V Yes via potentiometer Max. 960 W Green LED for 24 V OK Relay contact (NO contact, rating 60 V DC/0.3 A) for 24 V OK No overshoot of U_{out} (soft start)	24 … 28.8 V Yes via potentiometer Max. 960 W Green LED for 24 V OK possible via signaling module (6EP1961-3BA10) No overshoot of U_{out} (soft start)
2.5 s 500 ms **30 A** 0 … 30 A +60 ... +70 °C: Derating 1.7%/K	1.5 s 15 ms 500 ms **40 A** 0 … 40 A 48 A up to +45 °C; +60 ... +70 °C: Derating 2.5%/K	2.5 s 500 ms **40A** 0 … 40 A +60 ... +70 °C: Derating 3.75%/K	2.5 s 500 ms **40 A** 0 … 40 A +60 ... +70 °C: Derating 2%/K
960 W 32 A 32 A	960 W 65 A 65 A 120 ms 120 ms	960 W 120 A 44 A 25 ms	960 W 120 A 46 A 25 ms
Yes Switchable characteristic 2	Yes 2	Yes Switchable characteristic 2	Yes Switchable characteristic 2
93 % 50 W	91.5 % 89 W	92 % 83 W	90 % 106 W
1 % 3 %	3 % 1.5 %	1 % 3 %	1 % 2 %
   10 ms	1 ms 1 ms 10 ms	 10 ms	4 ms 4 ms 10 ms
< 35 V 32 A Yes	In the event of an internal fault U_{out} < 35 V 50 A Yes	< 35 V 44 A Yes	< 35 V 46 A Yes
Optional constant current characteristic approx. 32 A or latching shutdown 32 A Yellow LED for "overload", red LED for "latching shutdown"	Electronic shutdown, automatic restart 14 A Overload capability 150 % $I_{out\ rated}$ up to 5 s/min	Optional constant current characteristic approx. 44 A or latching shutdown 44 A Overload capability 150 % $I_{out\ rated}$ up to 5 s/min Yellow LED for "overload", red LED for "latching shutdown"	Optional constant current characteristic approx. 46 A or latching shutdown 46 A Yellow LED for "overload", red LED for "latching shutdown"

Special design PSU300B	SITOP smart PSU300S	SITOP modular PSU300M	SITOP modular
30 A	40 A	40 A	40 A
6EP1437-3BA20	6EP1437-2BA20	6EP1437-3BA10	6EP1437-3BA00
Yes SELV output voltage U_{out} according to EN 60950-1 and EN 50178 Class I 3.5 mA Yes	Yes SELV output voltage U_{out} according to EN 60950-1 and EN 50178 Class I Yes	Yes SELV output voltage U_{out} according to EN 60950-1 and EN 50178 Class I 3.5 mA Yes	Yes SELV output voltage U_{out} according to EN 60950-1 and EN 50178 Class I 3.5 mA Yes
Yes cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259	Yes cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)	Yes cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259	Yes UL-listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
– – No – IP20	ATEX (EX) II 3G Ex nA nC IIC T3; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I Div. 2 Group ABCD T3 Yes GL, ABS IP20	ATEX (EX) II 3G Ex nA nC IIC T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I Div. 2 Group ABCD T4 – Yes GL, ABS IP20	ATEX (Ex) II 3G Ex nA nC IIC T3 Gc; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I Div. 2 Group ABCD T3 – No – IP20
EN 55022 Class B EN 61000-3-2 EN 61000-6-2	EN 55022 Class B EN 61000-3-2 EN 61000-6-2	EN 55022 Class B EN 61000-3-2 EN 61000-6-2	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
-25 … +70 °C with natural convection -40 … +85 °C -40 … +85 °C Climate class 3K3, without condensation	0 … +70 °C with natural convection -40 … +85 °C -40 … +85 °C Climate class 3K3, without condensation	-25 … +70 °C with natural convection -40 … +85 °C -40 … +85 °C Climate class 3K3, without condensation	0 … +70 °C with natural convection -40 … +85 °C -40 … +85 °C Climate class 3K3, without condensation
Screw terminals L, N, PE: 1 screw terminal each for 0.2 ... 4 mm^2 solid/finely stranded +, -: 2 screw terminals each for 0.33 ... 10 mm^2 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm^2	Screw terminals L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm^2 solid/finely stranded +, -: 2 screw terminals each for 0.5 ... 10 mm^2 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm^2	Screw terminals L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm^2 solid/finely stranded +, -: 2 screw terminals each for 0.33 ... 10 mm^2 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm^2	Screw terminals L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm^2 solid/finely stranded +, -: 2 screw terminals each for 0.33 ... 10 mm^2 –
150 mm 125 mm 150 mm 150 mm 225 mm 3.4 kg Yes	150 mm 145 mm 150 mm 150 mm 225 mm 3.7 kg Yes	150 mm 125 mm 150 mm 150 mm 225 mm 3.4 kg Yes	240 mm 125 mm 125 mm 240 mm 225 mm 3.2 kg Yes
No Yes No Snaps onto DIN rail EN 60715 35x15 Buffer module (chapter 10) Device labeling plate 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	No Yes No Snaps onto DIN rail EN 60715 35x15 Buffer module (chapter 10) Device labeling plate 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	No Yes No Snaps onto DIN rail EN 60715 35x15 Buffer module (chapter 10) Device labeling plate 20 mm x 7 mm, pale turquoise 3RT1900-1SB20	No Yes No Snaps onto DIN rail EN 60715 35x15 Signaling module, buffer module (chapter 10)

Output current 20 A to 40 A

Selection and ordering data

Product	Input Voltage $U_{in\ rated}$	Output Voltage $U_{out\ rated}$	Current $I_{out\ rated}$	Order No.	Price
SITOP smart, PSU300S					
	**400-500 V 3 AC**	**24 V DC**	20 A	**6EP1436-2BA10**	
SITOP modular PSU300M					
	**400-500 V 3 AC**	**24 V DC**	20 A	**6EP1436-3BA10**	
SITOP modular					
	**400-500 V 3 AC** **Variant with PCB with protective coating**	**24 V DC**	20 A	**6EP1436-3BA00** **6EP1436-3BA00-8AA0**	
Special design, PSU300B					
	**400-500 V 3 AC**	**24 V DC**	30 A	**6EP1437-3BA20**	
SITOP smart, PSU300S					
	**400-500 V 3 AC**	**24 V DC**	40 A	**6EP1437-2BA20**	
SITOP modular PSU300M					
	**400-500 V 3 AC**	**24 V DC**	40 A	**6EP1437-3BA10**	
SITOP modular					
	**400-500 V 3 AC** **Variant with PCB with protective coating**	**24 V DC**	40 A	**6EP1437-3BA00** **6EP1437-3BA00-8AA0**	

Further information

You can find additional information in the Internet at:

- 2D dimensional drawings, 3D CAD data, circuit diagram macros:
  www.siemens.com/sitop-cax
- Operating instructions:
  www.siemens.com/sitop-manuals
- SITOP Selection Tool:
  www.siemens.com/sitop-selection-tool

Installation instructions, mounting areas and fixing options

Installation instructions

All SITOP and LOGO!Power supplies are built-in devices. They must be mounted vertically so that the supply air can enter the ventilation slots at the bottom of the devices and leave through the upper part of the devices. The minimum distances specified in the relevant operating instructions for the top, bottom and side of the devices must be observed to ensure free air convection.

The option of mounting in non-vertical positions with the appropriate derating is specified in the respective user documentation (manual).

Mounting areas and fixing options

Power supply	Order No.	Required mounting area	Mounting on a DIN rail acc. to EN 60715		Wall mounting
		in mm (W x H)	35 x 7.5 mm	35 x 15 mm	
SITOP 24 V, 1-phase and 2-phase power supplies					
24 V/0.375 A	6EP1731-2BA00	22.5 x 180	X	X	
24 V/0.6 A	6EP1331-5BA00	22.5 x 180	X	X	
24 V/1.3 A	6EP1331-5BA10	30 x 180	X	X	
24 V/1.3 A	6EP1331-1SH03	54 x 130	X	X	
24 V/2 A	6ES7307-1BA01-0AA0 3)	40 x 205	2)	2)	
	6ES7305-1BA80-0AA0 3)	80 x 225		1)	
	6EP1732-0AA00	80 x 235		X	X
24 V/2.1 A	6EP1331-1LD00	58 (117) x 128			X
24 V/2.5 A	6EP1332-2BA20	33 x 225	X	X	
	6EP1332-5BA00	45 × 180	X	X	
	6EP1332-1SH43	72 x 130	X	X	
	6EP1332-1SH71	70 x 140	X	X	X
	6EP1332-1LB00	33 × 225	X	X	
24 V/3 A	6EP1332-4BA00 5)	50 x 225			
24 V/3.1 A	6EP1332-1LD00	58 (117) x 128			X
24 V/3.5 A	6EP1332-1SH31	160 x 280	X	X	X
24 V/3.7 A	6EP1332-5BA20	52 x 180	X	X	
24 V/4 A	6EP1332-5BA10	52.5 x 180	X	X	
	6EP1332-1SH52	90 x 130	X	X	
24 V/4.1 A	6EP1332-1LD10	58 (117) x 158			X
24 V/5 A	6EP1333-3BA00	70 x 225	X	X	
	6EP1333-2BA20	50 x 225	X	X	
	6ES7307-1EA01-0AA0 3)	60 x 205	2)	2)	
	6EP1333-1LB00	50 x 225	X	X	
	6ES7307-1EA80-0AA0 3)	80 x 225		1)	
	6EP1333-1AL12	160 x 230	X	X	
24 V/6.2 A	6EP1333-1LD00	58 (117) x 178			X
24 V/8 A	6EP1333-4BA00 5)	75 x 205			
24 V/10 A	6EP1334-3BA00	90 x 225	X	X	
	6EP1334-2BA20	70 x 225	X	X	
	6ES7307-1KA02-0AA0 3)	80 x 205	2)	2)	
	6EP1334-1LB00	70 x 225	X	X	
	6EP1334-1AL12	160 x 230	X	X	
24 V/12.5 A	6EP1334-1LD00	61 (125) x 199			X
24 V/20 A	6EP1336-2BA10	115 x 225	X	X	
	6EP1336-3BA10	90 x 225	X	X	
	6EP1536-3AA00	90 x 225	X	X	
	6EP1336-3BA00	160 × 225	X	X	
24 V/40 A	6EP1337-3BA00	240 x 225		X	

Fusing of the 24 V DC output circuit, selectivity

Miniature circuit breakers [1] acc. to EN 60898 (DIN VDE 0641 T11) in 24 V DC circuits which are powered by SITOP modular or SITOP smart power supplies

Order No.	$I_{out\ rated}$	$I_{out\ dyn.}$	Characteristic A									
			1 A	1.6 A	2 A	3 A	4 A	6 A	8 A	10 A	13 A	16 A
6EP1332-2BA20	2.5 A	9 A/ 800 ms	✓	✓	❍	X	X	X	X	X	X	X
6EP1333-2BA20	5 A	18 A/ 800 ms	✓	✓	✓	✓	❍	X	X	X	X	X
6EP1333-3BA00	5 A	15 A/ 25 ms	✓	✓	✓	❍	❍	X	X	X	X	X
6EP1334-2BA20	10 A	32 A/ 1000 ms	✓	✓	✓	✓	✓	✓	❍	X	X	X
6EP1334-3BA00	10 A	30 A/ 25 ms	✓	✓	✓	✓	✓	✓	❍	X	X	X
6EP1434-2BA10	10 A	16 A/ 100 ms	✓	✓	✓	✓	❍	X	X	X	X	X
6EP1336-2BA10	20 A	35 A/ 100 ms	✓	✓	✓	✓	✓	✓	❍	❍	X	X
6EP1336-3BA00	20 A	60 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	❍	❍
6EP1336-3BA10	20 A	60 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	❍	❍
6EP1436-2BA10	20 A	35 A/ 100 ms	✓	✓	✓	✓	✓	✓	❍	❍	X	X
6EP1436-3BA00	20 A	60 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	❍	❍
6EP1436-3BA10	20 A	60 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	❍	❍
6EP1337-3BA00	40 A	120 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6EP1437-2BA20	40 A	65 A/ 120 ms	✓	✓	✓	✓	✓	✓	✓	✓	✓	❍
6EP1437-3BA00	40 A	120 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6EP1437-3BA10	40 A	120 A/ 25 ms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

$I_{out\ rated}$: Rated output current.
$I_{out\ dyn}$: Dynamic overcurrent at short-circuit during operation.
✓: Instantaneous tripping, due to dynamic overcurrent resulting from a short-circuit > limit current of electromagnetic tripping.
❍: Instantaneous tripping likely, since at least 50 % of dynamic overcurrent resulting from a short-circuit is within tolerance band of the tripping characteristic.
X: No instantaneous tripping.

[1] This selection of trippable circuit breakers is based on the maximum possible short-circuit current of the power supply and the respective tripping characteristic at +20 °C. Additional parameters that may also be relevant in practice, such as self-heating, increases in ambient temperature, line impedance and currents flowing in parallel paths, were not taken into account.