

SITOP modular

The modular power supply



Technical specifications	SITOP modular 1-phase and 2-phase ¹⁾				SITOP modular 3-phase		
SITOP	Basic unit 24 V/5 A	Basic unit 24 V/10 A	Basic unit 24 V/20 A	Basic unit 24 V/40 A	Basic unit 24 V/20 A	Basic unit 24 V/20 A	Basic unit 24 V/40 A
Order No.	6EP1333-3BA00	6EP1334-3BA00	6EP1336-3BA00	6EP1337-3BA00	6EP1436-3BA01	6EP1436-3BA00	6EP1437-3BA00
Input voltage rated value – range	120/230–500 V AC 85...264/176...550 V AC	120/230–500 V AC 85...264/176...550 V AC	120/230 V AC 93...132/183...264 V AC	120/230 V AC 95...132/190...264 V AC	3 x 400–500 V AC 3 x 360...550 V AC ⁴⁾	3x 400–500 V AC 3x 340...550 V AC	3x 400–500 V AC 3x 340...550 V AC
Mains buffering	> 25 ms (at 120/230 V)	> 25 ms (at 120/230 V)	> 20 ms (at 230 V)	> 20 ms (at 230 V)	> 15 ms (at 400 V)	> 6 ms (at 400 V)	> 6 ms (at 400 V)
Line frequency rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input current rated value – inrush current (25 °C / 77 °F) – recommended protection in the supply cable ²⁾	2.2/1.2–0.61 A < 35 A from 10 A char. B or 6 A char. C or 3RV1021-...	4.4/2.4–1.1 A < 35 A from 10 A char. B or 6 A char. C or 3RV1021-...	7.7/3.5 A < 60 A 10 A char. C or 6 A char. D or 3RV1421-...	15.0/8.0 A < 125 A 20 A char. C or 10 A char. D or 3RV1421-...	1.1–0.9 A < 18 A 6–16 A char. C 3-ph. coupled or 3 RV1021-1DA10 or 3RV1721-1DD10	1.1–0.9 A < 35 A 6–16 A char. C 3-ph. coupled or 3RV1021-1DA10 or 3RV1721-1DD10	2.0–1.7 A < 70 A 10–16 A char. C 3-ph. coupled or 3RV1021-1DA10 or 3RV1721-1DD10
Output voltage rated value – 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	24 V DC ± 3% 24...28.8 V DC
Output current rated value	5 A	10 A	20 A	40 A	20 A	20 A	40 A
Efficiency at rated value approx.	87%	87%	89%	88%	93%	90%	90%
Parallel switch for higher perf.	Yes, Output characteristics can be switched to parallel operation						
Brief overload characteristics	Power Boost: 3 x output current for 25 ms, Extra Power ³⁾ : 1.5 x rated output current for 5 s/min						
Electronic short-circuit protection	Yes, constant current or latching shutdown selectable; constant current: approx. 1.15 x rated output current						
RI specification (EN 55022)	Class B	Class B	Class B	Class B	Class B	Class B	Class B
Line harmonic limitation EN 61000-3-2	Yes	Yes	Yes	No	Yes	Yes	Yes
Degree of prot. (EN 60529)	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	–10...+60 °C	0...+60 °C	0...+60 °C
Dimension (W x H x D) in mm	70 x 125 x 125	90 x 125 x 125	160 x 125 x 125	240 x 125 x 125	70 x 125 x 125	160 x 125 x 125	240 x 125 x 125
Weight approx.	1.2 kg	1.4 kg	2.2 kg	2.9 kg	1.2 kg	2.0 kg	3.2 kg
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, UL, CSA	CE, UL, CSA

¹⁾ Connection to 2 phases of a 3-phase power system

²⁾ Fusing required for 3-phase units

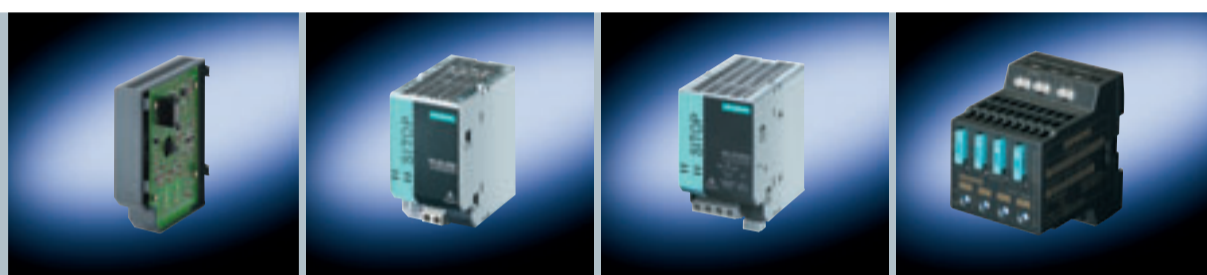
³⁾ Extra Power only available with 6EP1436-3BA01

⁴⁾ Extension to 320...575 V in preparation

SITOP ordering data

SITOP Add-ons

All-round protection offer



Technical specifications	Signaling	Power failure bridging	Redundancy	Monitoring
SITOP	Signaling module ¹⁾	Buffer module ¹⁾	Redundancy module	Diagnosis module SITOP select
Order No.	6EP1961-3BA10	6EP1961-3BA00	6EP1961-3BA20	6EP1961-2BA00
Input voltage rated value – range	Contact rating 240 V AC/6 A	24 V DC 24...28.8 V DC	24 V DC 24...28.8 V DC	24 V DC 22...30 V DC
Product/function description	Signaling module for lateral snapping onto the basic unit (6EP1xxx-3BA00); automatic contacting; with potential-free signaling contacts for "Output voltage o.k." and "Operating readiness o.k."; with signal input for remote ON/OFF switching of the basic unit.	Buffer module for bridging power failures; connected in parallel to basic unit's output; buffering time 800 ms at 5 A (6EP1x3x-3BA00) or 100 ms at 40 A load current; multiplication through paralleling possible; maximum buffering time 3 s.	Module for redundancy mode. Decoupling of two power supplies 5 A to 20 A or of one power supply 40 A per redundancy module. Isolated relay contact and green LEDs for signaling "Feed-in 1 and 2 o.k.", operating point settable from 20 to 25 V.	Diagnosis module for monitoring up to four 24-V load feeders; selective disabling of faulty feeders, nominal current of between 2 and 10 A individually specifiable; with common signal contact and LEDs in multiple colors; universal diagnosis module for all power supplies.
Output current rated value	Not applicable	40 A	40 A (total output current)	4 x 10 A
Efficiency at rated values approx.	Not applicable	Not applicable	97%	97%
Parallel switch for higher perf.	Not applicable	Yes	No	No
Electronic short-circuit protection	Not applicable	Yes	No	Yes
RI specification (EN 55022)	Class B	Class B	Class B	Class B
Degree of prot. (EN 60529)	IP20	IP20	IP20	IP20
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C
Dimensions (W x H x D) in mm	25 x 125 x 125	70 x 125 x 125	70 x 125 x 125	72 x 90 x approx. 90
Weight approx.	0.15 kg	1.2 kg	1.0 kg	0.4 kg
Approvals	CE, UL, CSA	CE, UL, CSA	CE, cULus	CE, cULus

¹⁾ only combinable with power supply SITOP modular

SITOP ordering data

Uninterruptible power supplies

SITOP DC UPS for long-term power failures



Technical specifications	SITOP DC UPS, for long power outages					
SITOP	DC UPS Module 24 V/6 A	DC UPS Battery Module 24 V/1.2 Ah ³⁾	DC UPS Module 24 V/15 A	DC UPS Battery Module 24 V/3.2 Ah ³⁾	DC UPS Module 24 V/40 A	DC UPS Battery Module 24 V/7 Ah ³⁾
Order No.	6EP1931-2DC21 6EP1931-2DC31 ¹⁾ 6EP1931-2DC42 ²⁾	6EP1935-6MC01	6EP1931-2EC21 6EP1931-2EC31 ¹⁾ 6EP1931-2EC42 ²⁾	6EP1935-6MD11	6EP1931-2FC21 6EP1931-2FC42 ²⁾	6EP1935-6ME21
Input voltage	24 V, 22...29 V DC Feed via 24 V SITOP power supply	Rec. final charging level: 26.4...27.3 V DC (> +20 °C) 27.3...29.0 V DC (< +20 °C)	24 V, 22...29 V DC Feed via 24 V SITOP power supply (5 A or higher)	Rec. final charging level: 26.4...27.3 V DC (> +20 °C) 27.3...29.0 V DC (< +20 °C)	24 V, 22...29 V DC Feed via 24 V SITOP power supply (10 A or higher)	Rec. final charging level: 26.4...27.3 V DC (> +20 °C) 27.3...29.0 V DC (< +20 °C)
Mains buffering	Depending on battery	approx. 2 min. at 4 A	Depending on battery	approx. 1.5 min. at 10 A	Depending on battery	approx. 2 min. at 20 A
Input current rated value	6 A+appr. 0.6 A for empty battery	Charging current max. 0.3 A	15 A+appr. 1 A for empty battery	Charging current 0.7 A	40 A+appr. 2.6 A for empty battery	Charging current max. 2.5 A
Overflow and short-circuit protection	Electronic, automatic restart	Battery fuse 7.5 A/32 V built in	Electronic, automatic restart	Battery fuse 15 A/32 V built in	Electronic, automatic restart	Battery fuse 20 A/32 V built in
Output voltage rated value	24 V DC (upstream SITOP unit or battery) Charging voltage: 27.0 V	24 V DC 22...27.0 V DC (idle)	24 V DC (upstream SITOP unit or battery) Charging voltage: 27.0 V	24 V DC 22...27.0 V DC (idle)	DC 24 V (upstream SITOP unit or battery) Charging voltage: 27.0 V	24 V DC 22...27.0 V DC (idle)
Output current rated value	6 A, charge current: typ. 0.4 A	2.5 A	15 A, charge current: typ. 0.7 A	10 A	40 A, charge current: typ. 2 A	20 A
Efficiency at rated value approx.	Backup mode: 94%, Ready mode: 95%		Backup mode: 96%, Ready mode: 96%		Backup mode: 97%, Ready mode: 97%	
Parallel switch	No	Yes	No	Yes	No	Yes
RI specification (EN 55022)	Class B	—	Class B	—	Class B	—
Degree of prot. (EN 60529)	IP20	IP00	IP20	IP00	IP20	IP00
Ambient temperature	0...+60 °C	+5...+40 °C	0...+60 °C	+5...+40 °C	0...+60 °C	+5...+40 °C
Dimensions (W x H x D) in mm	50 x 125 x 125	96 x 106 x 108	50 x 125 x 125	190 x 151 x 82	102 x 125 x 125	186 x 168 x 121
Weight approx.	0.4 kg	2 kg	0.4 kg	3.5 kg	1.1 kg	6.0 kg
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus

¹⁾ With serial interface

²⁾ With USB interface

³⁾ Battery module 24 V/2.5 Ah (6EP1935-6MD31) and 24 V/12 Ah (6EP1935-6MF01) on request

Subject to change without prior notice
Dispo 06305

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Version 02/2006

SITOP smart

The narrow universal power supply



Technical specifications

SITOP smart 1-phase

SITOP	24 V/2.5 A	24 V/5 A	24 V/5 A	24 V/10 A	24 V/10 A
Order No.	6EP1332-2BA10	6EP1333-2AA01	6EP1333-2BA01	6EP1334-2AA01	6EP1334-2BA01
Input voltage rated value – range	120/230 V AC 85...132/170...264 V AC	120/230 V AC 85...132/170...264 V AC	120/230 V AC 85...132/170...264 V AC	120/230 V AC 85...132/170...264 V AC	120/230 V AC 85...132/170...264 V AC
Mains buffering	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)
Line frequency rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input current rated value – inrush current (25 °C / 77 °F) – recommended protection in the supply cable	1.1/0.65 A < 14 A from 3 A characteristic C	2.1/1.15 A < 32 A from 6 A characteristic C	2.1/1.15 A < 32 A from 6 A characteristic C	4.1/2.4 A < 65 A from 10 A characteristic C	4.1/2.0 A < 65 A from 10 A characteristic C
Output voltage rated value – tolerance – setting range	24 V DC ± 3% 22.8...28 V DC	24 V DC ± 3% 22.8...28 V DC	24 V DC ± 3% 22.8...28 V DC	24 V DC ± 3% 22.8...28 V DC	24 V DC ± 3% 22.8...28 V DC
Output current rated value	2.5 A (3 A up to +45 °C)	5 A (6 A up to +45 °C)	5 A (6 A up to +45 °C)	10 A (12 A up to +45 °C)	10 A (12 A up to +45 °C)
Efficiency at rated value approx.	85%	87%	87%	90%	91%
Parallel switch for higher perf.	Yes	Yes	Yes	Yes	Yes
Brief overload characteristics	Extra-Power: 1.5 x rated output current for 5 s/min				
Electronic short-circuit protection	Yes, constant current				
RI specification (EN 55022)	Class B	Class B	Class B	Class B	Class B
Line harmonic limitation EN 61000-3-2	Not applicable	No	Yes	No	Yes
Degree of prot. (EN 60529)	IP20	IP20	IP20	IP20	IP20
Ambient temperature	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C	0...+60 °C
Dimensions (W x H x D) in mm	32.5x125x125	50x125x125	50x125x125	70x125x125	70x125x125
Weight approx.	0.4 kg	0.5 kg	0.5 kg	0.75 kg	0.8 kg
Approvals	CE; UL; CSA; GL; ATEX; Hazardous Location Class I Div 2 Groups A, B, C & D, T4				

SITOP facets

from our complete offer



Technical specifications

SITOP power 0.5

SITOP power Flat Design

SITOP Outdoor²⁾

SITOP flexi

SITOP	24 V/0.5 A	24 V/5 A	24 V/10 A	24 V/5 A	3 ... 52 V/10 A
Order No.	6EP1331-2BA10	6EP1333-1AL12	6EP1334-1AL12	6ES7307-1EA80-0AA0	6EP1353-2BA00
Input voltage rated value – range	120–230 V ¹⁾ AC 93...264 V AC	120/230 V AC 85...132/170...264 V AC	120/230 V AC 85...132/170...264 V AC	120/230 V AC 93...132/187...264 V AC	120/230 V AC 85...132/170...264 V AC
Mains buffering	> 10 ms (at 230 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 20 ms (at 93/187 V)	> 10 ms (at 93/187 V)
Line frequency rated value	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input current rated value – inrush current (25 °C / 77 °F) – recommended protection in the supply cable	0.22–0.13 A < 23 A from 3 A charact. C	2.2/1.2 A < 32 A from 6 A charact. C	4/2.5 A < 65 A from 10 A charact. C	2.2/1.2 A < 45 A from 10 A charact. C	2.2/0.9 A < 32 A from 6 A charact. C
Output voltage rated value – tolerance – setting range	24 V DC ± 3% —	24 V DC ± 1% 22...29 V DC	24 V DC ± 1% 22...29 V DC	24 V DC ± 3% —	24 V DC ± 1% 3...52 V DC
Output current rated value	0.5 A	5 A	10 A	5 A	2–10 A (max. 120 W)
Efficiency at rated values approx.	74%	88%	89%	84%	84% (at 24 V/5 A)
Parallel switch for higher perf.	No	Yes	Yes	No	Yes
Electronic short-circuit protection	Yes	Yes	Yes	Yes	Yes
RI specification (EN 55022)	Class B	Class B	Class B	Class A	Class B
Line harmonic limitation EN 61000-3-2	Not applicable	No	No	No	Yes
Degree of prot. (EN 60529)	IP20	IP20	IP20	IP20	IP20
Ambient temperature	–20...+70 °C	0...+60 °C	0...+60 °C	–25...+60 °C	0...+60 °C
Dimensions (W x H x D) in mm	22.5 x 80 x 91	160 x 130 x 60	160 x 130 x 60	80 x 125 x 120	75 x 125 x 125
Weight approx.	0.11 kg	0.6 kg	0.72 kg	0.57 kg	0.9 kg
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, UL, CSA	CE, cULus

¹⁾ With input voltage 48–220 V DC, Order No. 6EP1731-2BA00

²⁾ Condensation permissible, increased vibration and shock resistance

For further SITOP power supplies, please refer to the KT 10.1 catalog

LOGO!Power

The mini power packs



Technical specifications

54 mm housing

72 mm housing

90 mm housing

SITOP	5 V/3 A	12 V/1.9 A	15 V/1.9 A	24 V/1.3 A	5 V/6.3 A	12 V/4.5 A	15 V/4 A	24 V/2.5 A	24 V/4 A
Order No.	6EP1311-1SH02	6EP1321-1SH02	6EP1351-1SH02	6EP1331-1SH02	6EP1311-1SH12	6EP1322-1SH02	6EP1352-1SH02	6EP1332-1SH42	6EP1332-1SH51
Input voltage rated value – range	100–240 V AC 85...264 V AC				100–240 V AC 85...264 V AC				100–240 V AC 85...264 V AC
Mains buffering	> 40 ms (at 187 V)				> 40 ms (at 187 V)				> 40 ms (at 187 V)
Line frequency rated value	50/60 Hz				50/60 Hz				50/60 Hz
Input current rated value – inrush current (25 °C / 77 °F) – recommended protection in the supply cable	0.36–0.22 A < 15 A from 10 A characteristic C or 16 A characteristic B	0.53–0.30 A	0.63–0.33 A	0.70–0.35 A	0.71–0.37 A < 30 A from 10 A characteristic C or 16 A characteristic B	1.13–0.61 A	1.24–0.68 A	1.22–0.66 A	1.95–0.97 A < 30 A from 10 A char. C or 16 A char. B
Output voltage rated value – tolerance – setting range	5 V DC ± 3% 4.6...5.4 V DC	12 V DC	15 V DC	24 V DC	5 V DC	12 V DC	15 V DC	24 V DC	24 V DC
Output current rated value	3.0 A	1.9 A	1.9 A	1.3 A	6.3 A	4.5 A	4.0 A	2.5 A	4.0 A
Efficiency at rated value approx.	76%	80%	80%	82%	83%	85%	85%	87%	89%
Parallel switch for higher perf.	Yes				Yes				Yes
Electronic short-circuit protection	Yes, constant current				Yes, constant current				Yes, constant current
RI specification (EN 55022)	Class B				Class B				Class B
Line harmonic limitation EN 61000-3-2	Not applicable				Not applicable				Yes
Degree of prot. (EN 60529)	IP20				IP20				IP20
Ambient temperature	–20...+55 °C				–20...+55 °C				–20...+55 °C
Dimensions (W x H x D) 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
Approvals	CE, cULus, FM, GL	CE, cULus, FM, GL, ABS	CE, cULus, FM, GL	CE, cULus, FM, GL, ABS	CE, cULus, FM, GL	CE, cULus, FM, GL, ABS	CE, cULus, FM, GL	CE, cULus, FM, GL, ABS	CE, cULus, FM, GL, ABS