

Whatever tasks you have to tackle.
SITOP Power supplies can handle them!



sitop



SIEMENS

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In industrial applications, 24 V DC is becoming the voltage of choice. Unlike other vendors, Siemens offers a wide range of options to complement its power supplies. In addition to the complete product range of 24 V DC power supplies – from 0.5 A to 40 A, and power supplies in 5 V, 12 V, 15 V and 48 V, Siemens also provides power security equipment:

- Buffer modules for sensitive processes to avoid the loss 24 V DC during short power outages or voltage fluctuations
- DC UPS if the process requires longer hold-up times
- Redundancy modules if the process requires a redundant power supply configuration
- SITOP select electronic diagnostic modules if the application has multiple load circuits and a shutdown of the circuit, affected by the short, is required



Features and Benefits

Compact size

High power density
minimizes required
panel space

Worldwide standards and approvals

UL, cUL, and CE
approvals are standard
CSA and FM approvals
are available with certain
power supplies

DIN rail mounting

Reduces panel assembly time

High efficiency

Reduces the build-up of unwanted
heat in the panel

Secondary side short-circuit protection

No fusing required due to automatic
crowbar function

UL 508 Listed

Suitable for UL applications with 100%
of the rated output current
No derating necessary

Single- and three-phase input

Broad offering of 24 V DC single-phase
power supplies from 0.5 A up to 40 A
Three-phase solutions (available from
5 to 40 A) eliminate the need for 480 V –
120 V control power transformer

Power security add-on modules

Maximum protection with 24/7 reliability

SITOP ordering data

Power supplies
LOGO!Power



Technical specifications	54 mm housing				72 mm housing				90 mm housing
LOGO!Power	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	6EP1311-1SH02	6EP1321-1SH02	6EP1351-1SH02	6EP1332-15H42	6EP1332-15H51
Input voltage rated value - range	100-240 V AC (wide range) 85-264 V AC				100-240 V AC (wide range) 85-264 V AC				100-240 V AC (wide range) 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 Charac. C or 16 A Charac. B
Output voltage rated value - tolerance - setting range	5 V DC ± 3% 4.6 ... 5.4	12 V DC ± 3% 10.5 ... 16.1 V	15 V DC ± 3% 10.5 ... 16.1 V	24 V DC ± 3% 22.2 ... 26.4 V	5 V DC ± 3% 4.6 ... 5.4 V	12 V DC ± 3% 10.5 ... 16.1 V	15 V DC ± 3% 10.5 ... 16.1 V	24 V DC ± 3% 22.2 ... 26.4 V	24 V DC ± 3% 22.2 ... 26.4 V
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 values 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
Rf specification (EN 55022)	Class B				Class B				Class B
Line harmonic limitation to EN 61000-3-2	Not applicable				Not applicable				Yes
Degree of prot. (EN 60529)	IP 20				IP 20				IP 20
Ambient temperature	-20...+55 °C / -4...+131 °F				-20...+55 °C / -4...+131 °F				-20...+55 °C / -4...+131 °F
Dimensions (W x H x D) in mm/inches	54 x 90 x 55 / 2.13 x 3.54 x 2.17				72 x 90 x 55 / 2.84 x 3.54 x 2.17				90 x 90 x 55 / 3.54 x 3.54 x 2.17
Weight approx.	0.17 kg / 0.38 lbs				0.25 kg / 0.55 lbs				0.34 kg / 0.75 lbs
Approvals	UL, cUL, CE, FM, GL				UL, cUL, CE, FM, GL				UL, cUL, CE, FM, GL

SITOP ordering data

The modular power supply



Technical specifications

1-phase and 2-phase¹⁾

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 48 V / 20 A
Order No.	6EP1333-3BA00	6EP1334-3BA00	6EP1336-3BA00	6EP1337-3BA00	6EP1457-3BA00
Input voltage rated value – range	120/230–500 V AC 85...132/176...550 V AC	120/230–500 V AC 85...132/176...550 V AC	120/230 V AC 85...132/176...264 V AC	120/230 V AC 85...132/176...264 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)	> 6 ms (at 400 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	2.2/1.2–0.61 A (at 120/230 V) < 35 A from 10 A Char. B or 6 A Char. C or 3RV1021-1EA10	4.4/2.4–1.1 A (at 120/230 V) < 35 A from 10 A Char. B or 6 A Char. C or 3RV1021-1EA10	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-...	ca. 2.2 A (at 400 V) < 70 A required 3-ph. coupled circuit-breaker 6–16 A Char. C or 3RV1021-1DA10
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	48 V DC ± 3% 42...56 V DC
Output current rated value	5 A	10 A	20 A	40 A	20 A
Efficiency at rated value approx.	87%	87%	89%	88%	90%
Parallel switch for higher perf.	Yes, output characteristics can be switched to parallel operation				
Electronic short-circuit protection	Yes, selectable constant current or latching shut-down				
RI specification (EN 55022)	Class B	Class B	Class B	Class B	Class B
Line harmonic limitation EN 61000-3-2	Yes	Yes	Yes	–	Yes
Degree of prot. (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature	0...+60 °C / 32 ... 140 °F	0...+60 °C / 32 ... 140 °F	0...+60 °C / 32 ... 140 °F	0...+60 °C / 32 ... 140 °F	0...+60 °C / 32 ... 140 °F
Dimensions (W x H x D) in mm / inches	70 x 125 x 125 / 2.76 x 4.92 x 4.92	90 x 125 x 125 / 3.54 x 4.92 x 4.92	160 x 125 x 125 / 6.3 x 4.92 x 4.92	240 x 125 x 125 / 9.44 x 4.92 x 4.92	240 x 125 x 125 / 9.44 x 4.92 x 4.92
Weight approx.	1.2 kg / 2.6 lbs	1.4 kg / 3.1 lbs	2.2 kg / 4.9 lbs	2.9 kg / 6.4 lbs	3.2 kg / 7.1 lbs
Approvals	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE

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

SITOP ordering data

The modular power supply



Technical specifications	3-phase ¹⁾	3-phase ¹⁾	Signaling	Power failure bridging	Redundancy	Monitoring
SITOP	Basic unit 24 V/20 A	Basic unit 24 V/40 A	Signaling module	Buffer modul	Redundancy module	Diagnosis module
Order No.	6EP1436-3BA00	6EP1437-3BA00	6EP1961-3BA10	6EP1961-3BA00	6EP1961-3BA20	6EP1961-2BA00
Input voltage rated value - range	3x 400-500 V AC 3x 340 ... 550 V AC	3x 400-500 V AC 3x 340 ... 550 V AC	Contact rating 240 V/6 A AC	24 V DC 24...28.8 V DC	24 V DC 24...28.8 V DC	24 V DC 22...30 V DC
Mains buffering	> 6 ms (at 400 V)	> 6 ms (at 400 V)	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.	Product/Function description Buffer module for bridging power failures; connected in parallel to basic unit's (6EP1x3x-3BA00) output; buffering time 800 ms at 5 A or 100 ms at 40 A load current; multiplication through paralleling possible; maximum buffering time 3 s.	Product/Function description Module for redundancy mode. Decoupling of two basic units 5 A to 20 A or of one basic unit 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.	Product/Function description 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.
Line frequency rated value	50/60 Hz	50/60 Hz	Not applicable	40 A	40 A (total output current)	4 x 10 A
Input current rated value - inrush current (25 °C / 77 °F) - required protection in the supply cable	1.1 A (at 400 V) < 35 A 3-ph. coupled circuit-breaker 6-16 A Char. C or 3RV1021-1DA10	2.2 A (at 400 V) < 70 A	Not applicable	Not applicable	97 %	97 %
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	Not applicable	Yes	No	No
Output current rated value	20 A	40 A	Not applicable	Yes	No	Yes
Efficiency at rated values approx.	90 %	90 %	Not applicable	Not applicable	Class B	Class B
Parallel switch for higher perf.	Yes, output characteristics switchable to parallel operation	Yes, output characteristics switchable to parallel operation	Not applicable	Not applicable	Not applicable	Not applicable
Electronic short-circuit protection	Yes, selectable constant current or latching shutdown	Yes, selectable constant current or latching shutdown	Not applicable	Yes	Class B	Class B
RI specification (EN 55022)	Class B	Class B	Class B	Class B	Not applicable	Not applicable
Line harmonic limitation to EN 61000-3-2	Yes	Yes	Not applicable	Not applicable	Not applicable	Not applicable
Degree of prot. (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F
Dimensions (W x H x D) in mm / inches	160 x 125 x 125 / 6.3 x 4.92 x 4.92	240 x 125 x 125 / 9.44 x 4.92 x 4.92	25 x 125 x 125 / 0.98 x 4.92 x 4.92	70 x 125 x 125 / 2.76 x 4.92 x 4.92	70 x 125 x 125 / 2.76 x 4.92 x 4.92	72 x 90 x ca. 90 / 2.84 x 3.54 x appr. 3.54
Weight approx.	2.0 kg / 4.4 lbs	3.2 kg / 7.1 lbs	0.15 kg / 0.33 lbs	1.2 kg / 2.65 lbs	0.8 kg / 1.76 lbs	0.4 kg / 0.88 lbs
Approvals	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE

¹⁾ Power supply units with output currents of 5 A and 10 A connectable to 2 phases of a 3-phase supply system: 6EP1333-3BA00 and 6EP1334-3BA00

SITOP ordering data

SITOP ordering data

For long power outages



Technical specifications

DC UPS, for long power outages

SITOP	DC UPS Module 24 V/6 A	DC UPS Battery Module 24 V/1.2 Ah	DC UPS Module 24 V/15 A	DC UPS Battery Module 24 V/3.2 Ah ¹⁾	DC UPS Module 24 V/40 A	DC UPS Battery Module 24 V/7 Ah ²⁾
Order No.	6EP1931-2DC21 6EP1931-2DC31 ³⁾ 6EP1931-2DC41 ³⁾	6EP1935-6MC01	6EP1931-2EC21 6EP1931-2EC31 ³⁾ 6EP1931-2EC41 ³⁾	6EP1935-6MD11	6EP1931-2FC01	6EP1935-6ME01
Input voltage	24 V, 22 ... 29 V DC Feed via 24 V SITOP power	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 (24 V/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, 23.5 ... 26 V DC Feed via SITOP power 3-phase or 1-phase 24 V/10 A	Rec. final charging level: 27.3 ... 27.6 V DC (> +20 °C) 27.6 ... 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
Line frequency rated value	—	—	—	—	—	—
Input current rated value	6 A + approx. 0.6 A for empty Akku	Charging current max. 0.3 A	15 A + approx. 1 A for empty Akku	Charging current 0.7 A	40 A → (incl. battery charging current)	Charging current max. 2.5 A
Overflow and short-circuit protection	Electronic automatic restart	Battery fuse 15 A/32 V built in	Electronic automatic restart	Battery fuse 15 A/32 V built in	Electronic	Battery fuse 25 A/32 V built in
Output voltage rated value	24 V DC (upstream SITOP power unit or battery) Charging voltage: 27.0 V	DC 24 V DC 22 ... 27.0 V (idle)	24 V DC (upstream SITOP power unit or battery) Charging voltage: 27.0 V	24 V DC 22 ... 27.0 V DC (idle)	24 V DC (upstream SITOP power unit or battery) Charging voltage: 27.3 V	24 V DC 25 ... 27.3 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 values approx.	Backup mode: 94%, Ready mode: 95%		Backup mode: 96%, Ready mode: 96%		Backup mode: 97%, Ready mode: 99 %	
Parallel switch	No	Yes	No	Yes	No	Yes
RI specification (EN 55022)	Class II	—	Class II	—	Class B	—
Degree of prot. (EN 60529)	IP 20	IP 00	IP 20	IP 00	IP 20	IP 00
Ambient temperatur	0 ... +60 °C / 32 ... 140 °F	+5 ... +40 °C / 41 ... 104 °F	0 ... +60 °C / 32 ... 140 °F	+5 ... +40 °C / 41 ... 104 °F	0 ... +60 °C / 32 ... 140 °F	+5 ... +40 °C / 41 ... 104 °F
Dimensions (W x H x D) in mm / inches	50 x 125 x 125 / 1.97 x 4.92 x 4.92	98 x 116 x 108 / 3.86 x 4.57 x 4.25	50 x 125 x 125 / 1.97 x 4.92 x 4.92	190 x 151 x 82 / 7.48 x 5.94 x 3.22	220 x 130 x 65 / 8.66 x 5.12 x 2.56	168 x 156 x 112 / 6.61 x 6.14 x 4.41
Weight approx.	0.4 kg / 0.9 lbs	2 kg / 4.4 lbs	0.4 kg / 0.9 lbs	3.5 kg / 7.7 lbs	1.2 kg / 2.6 lbs	6.1 kg / 13.5 lbs
Approvals	UL, cUL, CE	UL + cUL pending, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE
¹⁾ With serial interface	²⁾ With USB interface	³⁾ Battery module 24 V/3.2 Ah (6EP1935-6MD11) and 24 V/7 Ah (6EP1935-6ME01) on request				

SITOP ordering data

SITOP ordering data

The facets selection from our full range



Technical specifications

1-phase

SITOP	24 V/0.5 A	24 V/2 A	24 V/5 A	24 V/10 A	24 V/20 A
Order No.	6EP1331-2BA10	6EP1331-2BA00	6EP1333-2BA00	6EP1334-2BA00	6EP1336-2BA00
Input voltage rated value - range	120-230 V ¹⁾ AC 93...264 V AC	120/230 V AC 93...132 V/ 187...264 V AC	AC 120/230 V 93...132 V 187...264 V AC	AC 120/230 V 93...132 V/ 187...264 V	AC 120/230 V 93...132 V/ 187...264 V
Mains buffering	> 10 ms (at 230 V)	> 10 ms (at 93/187 V)	> 10 ms (at 93/187 V)	> 10 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 Char. C	0.9/0.6 A < 14 A from 3 A Char. C	2.2/0.9 A < 32 A from 6 A characteristic C	5.5/2.1 A < 65 A from 10 A characteristic C	8.0/3.3 A < 81 A from 16 A characteristic C
Output voltage rated value - tolerance - setting range	24 V DC ± 3% —	24 V DC ± 3% 22.8 ... 26.4 V DC	24 V DC ± 3% 22.8 ... 26.4 V DC	24 V DC ± 3% 22.8 ... 28.8 V DC	24 V DC ± 3% 22.8 ... 26.4 V DC
Output current rated value	0.5 A	2 A	5 A	10 A	20 A
Efficiency at rated values approx.	74%	82%	87%	89%	87%
Parallel switch for higher perf.	No	Yes	Yes	Yes	Yes
RI specification (EN 55022)	Class B	Class B	Class B	Class B	Class B
Line harmonic limitation to EN 61000-3-2	Not applicable	Not applicable	Yes	Yes	Yes
Degree of prot. (EN 60529)	IP 20	IP 20	IP 20	IP 20	IP 20
Ambient temperature	-20 ... +70 °C / -4 ... 158 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +60 °C / 32 ... 140 °F	0 ... +55 °C / 32 ... 131 °F
Dimensions (W x H x D) in mm	22.5 x 80 x 91 / 8.86 x 3.15 x 3.58	50 x 125 x 125 / 1.97 x 4.92 x 4.92	75 x 125 x 125 / 2.95 x 4.92 x 4.92	100 x 125 x 135 / 3.94 x 4.92 x 5.31	280 x 125 x 92 ²⁾ / 11.03 x 4.92 x 3.63
Weight approx.	0.11 kg / 0.24 lbs	0.4 kg / 0.9 lbs	0.75 kg / 1.7 lbs	1.1 kg / 2.4 lbs	2.4 kg / 5.3 lbs
Approvals	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE	UL, cUL, CE

¹⁾ With input voltage 48-220 V DC, Order No. 6EP1331-2BA00

²⁾ Consideration permissible, increased vibration and impact resistance

SITOP ordering data

The facets
selection
from our
full range



Technical specifications

Three Phase

SITOP power	24 V/10 A	24 V/20 A	24 V/40 A
Order No.	6EP1434-2BA00	6EP1436-2BA00	6EP1437-2BA10
Input voltage rated value – range	3 AC 400-500 V 360...550 V ¹⁾	3 AC 400 – 500 V 360...550 V ¹⁾	3 AC 400 – 500 V 360 ... 550 V ¹⁾
Mains buffering	> 6 ms (at 360 V)	> 3 ms (at 360 V)	> 3 ms (at 360 V)
Line frequency rated value	50/60 Hz	50/60 Hz	50/60 Hz
Input current rated value – inrush current (25 °C / 77 °F) – required protection in the supply cable	0.65 A (400 V) < 25 A 3-ph. coupled circuit breaker characteristic C max. 25 A or 3VU1300-0MJ00 or 3RV1021-1DA10	1.2 A (400 V) < 25 A 3-ph. coupled circuit breaker characteristic C max. 25 A or 3VU1300-0MJ00 or 3RV1021-1DA10	1.9 A (400 V) < 25 A 3-ph. coupled circuit breaker characteristic C max. 25 A or 3VU1300-0MJ00 or 3RV1021-1DA10
Output voltage rated value – tolerance – setting range	24 V DC ± 3% 22.8 ... 26.4 V DC	24 V DC ± 3% 22.8 ... 26.4 V DC	24 V DC ± 3% 22.8 ... 26.4 V DC
Output current rated value	10 A	20 A	40 A
Efficiency at rated values approx.	89%	89%	90 %
Parallel switch for higher perf.	Yes	Yes	Yes
RFI specification (EN 55022)	Class B	Class B	Class B
Line harmonic limitation to EN 61000-3-2	Yes	Yes	Yes
Degree of prot. (EN 60529)	IP 20	IP 20	IP 20
Ambient temperature	0 ... +55 °C / 32 ... 131 °F	0 ... +55 °C / 32 ... 131 °F	0 ... +55 °C / 32 ... 131 °F
Dimensions (W x H x D) in mm / inches	280 x 125 x 92 ²⁾ / 11.03 x 4.92 x 3.63	280 x 125 x 92 ²⁾ / 11.03 x 4.92 x 3.63	280 x 180 x 92 ²⁾ / 11.03 x 4.92 x 3.63
Approx. weight	2 kg / 4.4 lbs	2 kg / 4.4 lbs	3.6 kg / 8.0 lbs

¹⁾ 340...360 V permissible for max. 2 sec.

²⁾ For minimum unit area requirements in the switching cabinet backplane, a mounting bracket is available.
Order No. 6EP1971-2BA00; Dimension: W x H x D; mm / inches 320 x 150 x 100 / 12.6 x 5.9 x 4; Appx. wt.: 0.9 kg / 1.98 lbs

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.