



SITOP PSU3800/3AC/24VDC/30-40A

SITOP PSU3800 24 V/30-40 A stabilized power supply input: 400-500 V 3 AC  
output: 24 V DC/30-40 A suitable for battery charging

### General information

Technical Product Detail Page

<https://l.siemens.com/1P6EP3437-8UB00-0AY0>

### input

type of the power supply network	3-phase AC
supply voltage at AC	
• minimum rated value	400 V
• maximum rated value	500 V
• initial value	320 V
• full-scale value	575 V
wide range input	Yes
buffering time for rated value of the output current in the event of power failure minimum	10 ms
operating condition of the mains buffering	at $V_{in} = 400\text{ V}$
line frequency	50/60 Hz
line frequency	45 ... 65 Hz
input current	
• at rated input voltage 400 V	2.1 A
• at rated input voltage 500 V	1.7 A
current limitation of inrush current at 25 °C maximum	13 A
I <sup>2</sup> t value maximum	2.24 A <sup>2</sup> ·s
fuse protection type in the feeder	Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)

### output

voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
• at output 1 at DC rated value	24 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	24 ... 28 V; max. 960 W
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	0.2 %
residual ripple	
• maximum	100 mV
voltage peak	
• maximum	240 mV
display version for normal operation	Green LED for 24 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"

behavior of the output voltage when switching on	minimal overshoot (< 3 %)
response delay maximum	0.1 s
voltage increase time of the output voltage	
• maximum	100 ms
output current	
• rated value	40 A
• rated range	0 ... 40 A; +60 ... +70 °C: Derating 4%/K
supplied active power typical	960 W
constant overload current	
• on short-circuiting during the start-up typical	48 A
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
<b>efficiency</b>	
efficiency in percent	94 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	66 W
• during no-load operation maximum	4 W
<b>closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	3 %
setting time	
• maximum	10 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	< 31.8 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic approx. 44 A
• typical	44 A
enduring short circuit current RMS value	
• typical	50 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Output voltage: SELV, ES1 (IEC 62368-1), DVC As (IEC 61204-7)
operating resource protection class	Class I
leakage current	
• maximum	1 mA
• typical	0.6 mA
protection class IP	IP20
<b>EMC</b>	
standard	
• for emitted interference	EN 55022 Class B
• for mains harmonics limitation	EN 61000-3-2
• for interference immunity	EN 61000-6-2
<b>standards, specifications, approvals</b>	
certificate of suitability	
• CE marking	Yes
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
• UKCA marking	Yes
• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
• NEC Class 2	No
• SEMI F47	Yes
type of certification	
• CB-certificate	Yes
MTBF at 40 °C	517 015 h

**standards, specifications, approvals hazardous environments**

certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• FM registration	No

**standards, specifications, approvals marine classification**

shipbuilding approval	Yes
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	No

**standards, specifications, approvals Environmental Product Declaration**

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	1 751.8 kg
• during manufacturing	78.9 kg
• during operation	1 671.3 kg
• after end of life	0.66 kg

**ambient conditions**

ambient temperature	
• during operation	-25 ... +70 °C; With natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation

**connection method**

type of electrical connection	screw terminal
• at input	L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm <sup>2</sup> single-core/finely stranded
• at output	+: 2 screw terminals each for 0.5 ... 16 mm <sup>2</sup> ; -: 3 screw terminals each for 0.5 ... 16 mm <sup>2</sup>
• for auxiliary contacts	13, 14 (alarm signal), 15, 16 (Remote): 1 screw terminal each for 0.05 ... 2.5 mm <sup>2</sup>

**mechanical data**

width × height × depth of the enclosure	135 × 145 × 150 mm
installation width × mounting height	135 mm × 225 mm
required spacing	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x15
• DIN-rail mounting	Yes
• S7 rail mounting	No
• wall mounting	No
housing can be lined up	Yes
net weight	3.3 kg

**accessories**

electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20

**further information internet links**

internet link	
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: power supplies	<a href="https://siemens.com/sitop">https://siemens.com/sitop</a>
• to website: CAX-Download-Manager	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**additional information**

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

security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement - and continuously maintain - a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . Siemens' products and solutions undergo continuous development to make them more secure. Siemens recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)
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**Classifications**

	Version	Classification
eClass	14	27-04-07-01
eClass	12	27-04-07-01
eClass	9.1	27-04-07-01
eClass	9	27-04-07-01
eClass	8	27-04-90-02
eClass	7.1	27-04-90-02
eClass	6	27-04-90-02
ETIM	10	EC002540
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

**Approvals Certificates**

Environmental Product Declaration	
• global warming potential [CO2 eq] / during manufacturing	78.9 kg
• global warming potential [CO2 eq] / during operation	1671.3 kg
• global warming potential [CO2 eq] / after end of life	0.66 kg
• global warming potential [CO2 eq] / total	1751.8 kg

**Environment      General Product Approval**



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



**General Product Approval      Maritime application**

[China RoHS](#)



last modified:

5/5/2026