



SITOP PSU100S/1AC/24VDC/10A

SITOP PSU100S 24 V/10 A stabilized power supply input: 120/230 V AC output: 24 V DC/10 A

input	
type of the power supply network	1-phase AC
supply voltage at AC	Automatic range selection
supply voltage	120 V/230 V
input voltage 1 at AC	85 ... 132 V
input voltage 2 at AC	170 ... 264 V
wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 120 V	4.49 A
• at rated input voltage 230 V	1.91 A
current limitation of inrush current at 25 °C maximum	60 A
I <sup>2</sup> t value maximum	5.6 A <sup>2</sup> ·s
fuse protection type	T 6.3 A/250 V (not accessible)
fuse protection type in the feeder	Recommended miniature circuit breaker: from 10 A characteristic C
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	22.8 ... 28 V
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	1 %
residual ripple	
• maximum	150 mV
• typical	20 mV
voltage peak	
• maximum	240 mV
• typical	160 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	Overshoot of Vout < 3 %
response delay maximum	0.3 s

voltage increase time of the output voltage	
• typical	20 ms
output current	
• rated value	10 A
• rated range	0 ... 12 A; 12 A up to +45°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	288 W
short-term overload current	
• on short-circuiting during the start-up typical	32 A
• at short-circuit during operation typical	32 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	1 000 ms
• at short-circuit during operation	1 000 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>efficiency</b>	
efficiency in percent	90 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	25 W
<b>closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %
setting time	
• load step 10 to 90% typical	1 ms
• load step 90 to 10% typical	1 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	protection against overvoltage in case of internal fault $V_{out} < 33 \text{ V}$
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
response value current limitation	12 ... 14.6 A
overcurrent overload capability	
• in normal operation	overload capability 150 % $I_{out}$ rated up to 5 s/min
enduring short circuit current RMS value	
• typical	14.6 A
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
• maximum	3.5 mA
• typical	0.8 mA
protection class IP	IP20
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; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
• EAC approval	Yes
• NEC Class 2	No
type of certification	
• BIS	Yes; R-41188271
• CB-certificate	Yes
MTBF at 40 °C	1 614 510 h

**standards, specifications, approvals hazardous environments**

certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• cCSAus, Class 1, Division 2	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)	Yes
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	No

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

Environmental Product Declaration	Yes
Global Warming Potential [CO <sub>2</sub> eq]	
• total	803.2 kg
• during manufacturing	20.7 kg
• during operation	781.8 kg
• after end of life	0.57 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	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
• for auxiliary contacts	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm <sup>2</sup>
• for signaling contact	2 screw terminals for 0.5 ... 2.5 mm <sup>2</sup>

**mechanical data**

width × height × depth of the enclosure	70 × 120
installation width × mounting height	70 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
• standard rail mounting	Yes
• S7 rail mounting	No
• wall mounting	No
housing can be lined up	Yes
net weight	0.8 kg

**accessories**

electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20

**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://siemens.com/tst">https://siemens.com/tst</a>
• to website: Industrial communication	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
• to website: CAx-Download-Manager	<a href="http://www.siemens.com/cax">http://www.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)
-------------------	---

**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 [www.siemens.com/cybersecurity-industry](https://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly 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 <https://www.siemens.com/cert>. (V4.7)

**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	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

**Approvals Certificates**

**General Product Approval**



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



**General Product Approval**

**Marine / Shipping**

**Environment**

[Miscellaneous](#)

[BIS CRS](#)



last modified:

5/22/2024