



SITOP PSU100S/1AC/12VDC/7A

SITOP PSU100S 12 V/7 A stabilized power supply input: 120/230 V AC output: 12 V DC/7 A *Ex approval no longer available*

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	$2.3 \times V_{in}$ 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 $V_{in} = 93/187$ V
Rated line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 120 V	1.73 A
• at rated input voltage 230 V	0.99 A
current limitation of inrush current at 25 °C maximum	45 A
fuse protection type	T 3,15 A/250 V (not accessible)
fuse protection type in the feeder	Recommended miniature circuit breaker: from 6 A characteristic C
output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	12 V
output voltage	
• at output 1 at DC rated value	12 V
output voltage	
• at output 1 at DC	12 ... 12 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage initial value	11.5 V
adjustable output voltage full-scale value	15.5 V
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	1 %
residual ripple	
• maximum	150 mV
• typical	20 mV
voltage peak	
• maximum	240 mV
• typical	100 mV
display version for normal operation	Green LED for 12 V OK

type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 12 V OK
behavior of the output voltage when switching on	Overshoot of $V_{out} < 3 \%$
response delay maximum	0.3 s
voltage increase time of the output voltage • typical	10 ms
output current • rated value • rated range	7 A 0 ... 7 A; +50 ... +70 °C: Derating 0.75%/K
supplied active power typical	84 W
short-term overload current • on short-circuiting during the start-up typical • at short-circuit during operation typical	25 A 25 A
duration of overloading capability for excess current • on short-circuiting during the start-up • at short-circuit during operation	800 ms 800 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	84 %
power loss [W] • at rated output voltage for rated value of the output current typical	15 W
closed-loop control	
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	5 %
setting time • load step 10 to 90% typical • load step 90 to 10% typical	1 ms 1 ms
protection and monitoring	
design of the overvoltage protection	< 20 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
• response value current limitation	7 ... 8.8 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	8.8 A
safety	
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 • typical	3.5 mA 0.4 mA
protection class IP	IP20
EMC	
standard • for emitted interference • for mains harmonics limitation • for interference immunity	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
standards, specifications, approvals	
• CE mark • UL/CSA approval • UL/CSA approval • certificate of suitability EAC approval • certificate of suitability NEC Class 2	Yes 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; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) Yes No

• CB approval	Yes
MTBF at 40 °C	1 998 441 h
standards, specifications, approvals hazardous environments	
• certificate of suitability IECEx	No
• certificate of suitability ATEX	No
• certificate of suitability ULhazloc approval	No
• certificate of suitability cCSAus, Class 1, Division 2	No
• FM approval	No
standards, specifications, approvals marine classification	
	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	482.5 kg
• during manufacturing	12.9 kg
• during operation	469.1 kg
• after end of life	0.35 kg
ambient conditions	
ambient temperature	
• during operation	-25 ... +70 °C; with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation
connection method	
• Connection technology	screw-type terminals
• Connections Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
• Connections Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm ²
• Connections Auxiliary	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm ²
• Connections signaling contact	2 screw terminals for 0.5 ... 2.5 mm ²
mechanical data	
width × height × depth of the enclosure	50 × 125 × 120 mm
installation width × Installation height	50 × 225 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
• Installation	Snaps onto DIN rail EN 60715 35x7.5/15
• fastening method standard rail mounting	Yes
• fastening method S7 rail mounting	No
• fastening method wall mounting	No
housing can be lined up	Yes
Weight, approx.	0.5 kg
further information internet links	
internet link	
• to web page: selection aid TIA Selection Tool	https://siemens.com/tst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: CAX-Download-Manager	http://www.siemens.com/cax
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 security 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 security 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 security measures that may be implemented, please visit https://www.siemens.com/industrialsecurity. 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 Security RSS Feed under https://www.siemens.com/cert. (V4.6)
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Classifications			
		Version	Classification
	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	For use in hazardous locations			
	Miscellaneous			CCC-Ex
UL		IECEx	ATEX	UL

Marine / Shipping	Environment
DNV	EPD

last modified:
2/13/2024