



SITOP PSU100L/1AC/24VDC/20A

SITOP PSU100L 24 V/20 A Stabilized power supply input: 100-240 V AC output: 24 V DC/20 A

input	
type of the power supply network	1-phase AC or DC
supply voltage at AC minimum rated value	100 ... 240 V
supply voltage at AC maximum rated value	
supply voltage at AC initial value	85 ... 264 V
supply voltage at AC full-scale value	
supply voltage at DC	100 ... 240 V
input voltage at DC	88 ... 370 V
wide range input	Yes
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
line frequency	50/60 Hz
line frequency initial value	47 ... 63 Hz
line frequency full-scale value	
input current	
• at rated input voltage 120 V	5.55 A
• at rated input voltage 230 V	2.35 A
current limitation of inrush current at 25 °C maximum	45 A
duration of inrush current limiting at 25 °C	
• typical	15 ms
I ² t value maximum	3.3 A ² ·s
fuse protection type	T 10 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 initial value	22.8 V
adjustable output voltage full-scale value	26.4 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	50 mV
voltage peak	

<ul style="list-style-type: none"> • maximum 	240 mV
<ul style="list-style-type: none"> • typical 	100 mV
display version for normal operation	Green LED for 24 V OK
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	1.5 s
voltage increase time of the output voltage	
<ul style="list-style-type: none"> • typical 	20 ms
output current	
<ul style="list-style-type: none"> • rated value 	20 A
<ul style="list-style-type: none"> • rated range 	0 ... 20 A; +45 ... +70 °C: Derating 2.5%/K
supplied active power typical	480 W
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency in percent	92 %
power loss [W]	
<ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	45 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.5 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %
setting time	
<ul style="list-style-type: none"> • load step 10 to 90% typical 	0.7 ms
<ul style="list-style-type: none"> • load step 90 to 10% typical 	6 ms
protection and monitoring	
design of the overvoltage protection	< 33 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
<ul style="list-style-type: none"> • response value current limitation typical 	24 A
enduring short circuit current RMS value	
<ul style="list-style-type: none"> • typical 	24 A
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
<ul style="list-style-type: none"> • maximum 	3.5 mA
<ul style="list-style-type: none"> • typical 	0.8 mA
protection class IP	IP20
standard	
<ul style="list-style-type: none"> • for emitted interference 	EN 55022 Class B
<ul style="list-style-type: none"> • for mains harmonics limitation 	EN 61000-3-2
<ul style="list-style-type: none"> • for interference immunity 	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • UL approval 	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
<ul style="list-style-type: none"> • CSA approval 	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • NEC Class 2 	No
type of certification	
<ul style="list-style-type: none"> • BIS 	Yes; R-41184349
<ul style="list-style-type: none"> • CB-certificate 	Yes
standards, specifications, approvals hazardous environments	
certificate of suitability	
<ul style="list-style-type: none"> • IECEx 	No
<ul style="list-style-type: none"> • ATEX 	No
<ul style="list-style-type: none"> • ULhazloc approval 	No
<ul style="list-style-type: none"> • cCSAus, Class 1, Division 2 	No

<ul style="list-style-type: none"> • FM registration 	No	
standards, specifications, approvals marine classification		
shipbuilding approval	No	
Marine classification association		
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Lloyds Register of Shipping (LRS) 	No No No No	
ambient conditions		
ambient temperature		
<ul style="list-style-type: none"> • during operation • during transport • during storage 	-25 ... +70 °C; with natural convection -40 ... +85 °C -40 ... +85 °C	
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation	
connection method		
type of electrical connection	screw-type terminals	
<ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 2.5 mm ² -	
mechanical data		
width × height × depth of the enclosure	110 × 125 × 125 mm	
installation width × mounting height	110 × 225 mm	
required spacing		
<ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 0 mm	
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15	
<ul style="list-style-type: none"> • standard rail mounting • S7 rail mounting • wall mounting 	Yes No No	
housing can be lined up	Yes	
net weight	1.8 kg	
further information internet links		
internet link		
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: CAx-Download-Manager 	https://siemens.com/tst http://www.siemens.com/simatic-net 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)	
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](#)



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