



SITOP PSU100S/1AC/24VDC/2.5A

SITOP PSU100S 24 V/2.5 A stabilized power supply input: 120/230 V AC output: 24 V DC/2.5 A

General information	
Technical Product Detail Page	https://l.siemens.com/1P6EP1332-2BA20
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	1.25 A
• at rated input voltage 230 V	0.74 A
current limitation of inrush current at 25 °C maximum	33 A
I ² t value maximum	0.4 A ² ·s
fuse protection type	T 3,15 A/250 V (not accessible)
fuse protection type in the feeder	Recommended miniature circuit breaker: from 3 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 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	30 mV
voltage peak	
• maximum	240 mV
• typical	70 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 <ul style="list-style-type: none"> • typical 	15 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	2.5 A 0 ... 3 A; 3 A up to +45°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	60 W
short-term overload current <ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	9 A 8 A
duration of overloading capability for excess current <ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	800 ms 100 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	85 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	10 W
closed-loop control	
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	5 %
setting time <ul style="list-style-type: none"> • load step 10 to 90% typical • load step 90 to 10% typical 	1 ms 1 ms
protection and monitoring	
design of the overvoltage protection	protection against overvoltage in case of internal fault Vout < 33 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
response value current limitation	3 ... 3.4 A
overcurrent overload capability <ul style="list-style-type: none"> • in normal operation 	overload capability 150 % Iout rated up to 5 s/min
enduring short circuit current RMS value <ul style="list-style-type: none"> • typical 	3.4 A
safety	
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 <ul style="list-style-type: none"> • maximum • typical 	3.5 mA 0.4 mA
protection class IP	IP20
EMC	
standard <ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 55022 Class B not applicable EN 61000-6-2
standards, specifications, approvals	
certificate of suitability <ul style="list-style-type: none"> • CE marking • UL approval • UKCA marking 	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes

<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"> • CB-certificate 	Yes
MTBF at 40 °C	1 804 044 h
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"> • FM registration 	No
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No
<ul style="list-style-type: none"> • French marine classification society (BV) 	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> • total 	252.5 kg
<ul style="list-style-type: none"> • during manufacturing 	8.2 kg
<ul style="list-style-type: none"> • during operation 	244 kg
<ul style="list-style-type: none"> • after end of life 	0.24 kg
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +70 °C; with natural convection
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • at input 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • at output 	+, -: 2 screw terminals each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • for auxiliary contacts 	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • for signaling contact 	2 screw terminals for 0.5 ... 2.5 mm ²
mechanical data	
width × height × depth of the enclosure	32.5 × 125 × 120 mm
installation width × mounting height	32.5 mm × 225 mm
required spacing	
<ul style="list-style-type: none"> • top 	50 mm
<ul style="list-style-type: none"> • bottom 	50 mm
<ul style="list-style-type: none"> • left 	0 mm
<ul style="list-style-type: none"> • right 	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
<ul style="list-style-type: none"> • DIN-rail mounting 	Yes
<ul style="list-style-type: none"> • S7 rail mounting 	No
<ul style="list-style-type: none"> • wall mounting 	No
housing can be lined up	Yes
net weight	0.32 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	
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	https://www.siemens.com/tstcloud

- to web page: power supplies
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://siemens.com/sitop>
<https://siemens.com/cax>
<https://support.industry.siemens.com>

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. 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	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 8.2 kg
- global warming potential [CO2 eq] / during operation 244 kg
- global warming potential [CO2 eq] / after end of life 0.24 kg
- global warming potential [CO2 eq] / total 252.5 kg

Environment

General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



General Product Approval

Maritime application

[China RoHS](#)



[Miscellaneous](#)



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