SIEMENS

Data sheet 6EP1331-5BA10



SITOP PSU100C/1ACDC/24VDC/1.3A

SITOP PSU100C 24 V/1.3 A stabilized power supply input: 120-230 V AC (110-300 V DC) output: 24 V DC/1.3 A

General information	
Technical Product Detail Page	https://i.siemens.com/1P6EP1331-5BA10
product brand name	SITOP
product type designation	PSU100C
product designation	Power supply SITOP PSU100C
type of current supply	24 V/1.3 A
input	
type of the power supply network	1-phase AC or DC
phase number	1
voltage curve at input	AC/DC
supply voltage at AC	
● minimum rated value	100 V
● maximum rated value	230 V
● initial value	85 V
● full-scale value	264 V
input voltage at DC	110 ... 300 V
supply voltage	
● at 50 Hz	230 V
● at 60 Hz	100 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
wide range input	Yes
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 = 230 V
input current	
● at rated input voltage 100 V	0.63 A
● at rated input voltage 230 V	0.31 A
current limitation of inrush current at 25 °C maximum	34 A
I2t value maximum	1.2 $A^2 \cdot s$
fuse protection type	internal
fuse protection type in the feeder	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C
output	
voltage curve at output	Controlled, isolated DC voltage
product function output voltage controlled	Yes
product function output voltage stabilized	Yes
output voltage at DC rated value	24 V

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output voltage	
● at output 1 at DC rated value	24 V
output voltage	
● at output 1 at DC	24 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	22.2 ... 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	0.2 %
residual ripple	
● maximum	200 mV
● typical	25 mV
voltage peak	
● maximum	300 mV
● typical	20 mV
display version for normal operation	Green LED for output voltage OK
behavior of the output voltage when switching on	Overshoot of Vout approx. 5 %
response delay maximum	0.6 s
voltage increase time of the output voltage	
● typical	90 ms
output current	
● rated value	1.3 A
● rated range	0 ... 1.3 A; +60 ... +70 °C: Derating 0.8%/K; at +70 °C Iout rated 1.2 A
supplied active power typical	30 W
short-term overload current	
● at short-circuit during operation typical	3.1 A
bridging of equipment	Yes; Start-up with single nominal load only
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	86 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	4.5 W
● during no-load operation maximum	0.75 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.1 %
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	5 ms
● load step 90 to 10% typical	5 ms
protection and monitoring	
design of the overvoltage protection	< 60 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
● typical	1.4 A
safety	
electrical separation 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	3.5 mA
● typical	0.4 mA
protection class IP	IP20
EMC	
standard	

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● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	not applicable
● for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273, NEC class 2 (acc. to UL 1310)
● EAC approval	Yes
● NEC Class 2	Yes; according to UL1310, File E151273
type of certification	
● CB-certificate	Yes
MTBF at 40 °C	3 838 624 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)	Yes
● 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	126.5 kg
● during manufacturing	3.2 kg
● during operation	123.1 kg
● after end of life	0.12 kg
ambient conditions	
ambient temperature	
● during operation	-20 ... +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: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²
● at output	+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²
● for auxiliary contacts	-
mechanical data	
width × height × depth of the enclosure	30 × 80 × 100 mm
installation width × mounting height	30 mm × 180 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
● DIN-rail mounting	Yes
● S7 rail mounting	No
● wall mounting	No
housing can be lined up	Yes
net weight	0.17 kg

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accessories	
electrical accessories	Removable spring-type terminal 6EP1971-5BA00
further information internet links	
internet link	
● to website: Industry Mall	https://mall.industry.siemens.com
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: power supplies	https://siemens.com/sitop
● to website: CAx-Download-Manager	https://siemens.com/cax
● to website: Industry Online Support	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	16	27-04-07-01
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	3.2 kg
● global warming potential [CO2 eq] / during operation	123.1 kg
● global warming potential [CO2 eq] / after end of life	0.12 kg
● global warming potential [CO2 eq] / total	126.5 kg

Environment	General Product Approval				
EPD	CB	CB	Manufacturer Declaration	Declaration of Conformity	UKCA

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General Product Approval				Maritime application	
CE EG-Konf.	China RoHS	UL	UR	ABS	DNV

last modified: 8/29/2026

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