



SITOP PSU100C/1ACDC/24VDC/4A/NECCLASS2

SITOP PSU100C 24 V/3.7 A stabilized power supply input: 120-230 V AC (110-300 V DC) output: 24 V DC/3.7 A restricted output NEC Class 2 *Ex approval no longer available*

Input	
type of the power supply network	1-phase AC or 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
design of input wide range input	Yes
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 230 V
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
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 100 V	1.88 A
• at rated input voltage 230 V	0.95 A
current limitation of inrush current at 25 °C maximum	30 A
I2t value maximum	3 A²·s
fuse protection type	internal
• 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
output voltage at DC rated value	24 V
output voltage	
• at output 1 at DC rated value	24 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	90 mV
voltage peak	
• maximum	300 mV
• typical	60 mV

product function output voltage adjustable	No
type of output voltage setting	-
display version for normal operation	Green LED for output voltage OK
behavior of the output voltage when switching on	Overshoot of Vout approx. 1 %
response delay maximum	1.5 s
voltage increase time of the output voltage	
• typical	500 ms
output current	
• rated value	3.7 A
• rated range	0 ... 3.7 A; +50 ... +70 °C: Derating 3.5%/K; at +70 °C lout rated 1.1 A
supplied active power typical	89 W
product feature	
• bridging of equipment	No

Efficiency

efficiency in percent	87 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	14 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	4 ms
• load step 90 to 10% typical	4 ms

Protection and monitoring

design of the overvoltage protection	Yes, according to EN 60950-1
response value current limitation typical	4 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
display version for overload and short circuit	-

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	
• maximum	3.5 mA
• typical	0.4 mA
protection class IP	IP20

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)
• CSA 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)
• cCSAus, Class 1, Division 2	No
• ATEX	No
certificate of suitability	
• IECEx	No
• NEC Class 2	Yes
• ULhazloc approval	No
• FM registration	No
type of certification CB-certificate	Yes
certificate of suitability	
• EAC approval	Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes

<ul style="list-style-type: none"> • French marine classification society (BV) • DNV GL • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) 	<p>No</p> <p>Yes</p> <p>No</p> <p>No</p>
EMC	
<p>standard</p> <ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	<p>EN 55022 Class B</p> <p>EN 61000-3-2</p> <p>EN 61000-6-2</p>
environmental conditions	
<p>ambient temperature</p> <ul style="list-style-type: none"> • during operation • during transport • during storage <p>environmental category according to IEC 60721</p>	<p>-20 ... +70 °C; with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p> <p>Climate class 3K3, 5 ... 95% no condensation</p>
Mechanics	
<p>type of electrical connection</p> <ul style="list-style-type: none"> • at input • at output <p>• for auxiliary contacts</p> <p>width of the enclosure</p> <p>height of the enclosure</p> <p>depth of the enclosure</p> <p>required spacing</p> <ul style="list-style-type: none"> • top • bottom • left • right <p>net weight</p> <p>product feature of the enclosure housing can be lined up</p> <p>fastening method</p> <p>electrical accessories</p> <p>MTBF at 40 °C</p> <p>other information</p>	<p>screw-type terminals</p> <p>L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²</p> <p>+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²</p> <p>-</p> <p>52.5 mm</p> <p>80 mm</p> <p>100 mm</p> <p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0.32 kg</p> <p>Yes</p> <p>Snaps onto DIN rail EN 60715 35x7.5/15</p> <p>Removable spring-type terminal 6EP1971-5BA00</p> <p>2 776 544 h</p> <p>Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)</p>

