



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 A <sup>2</sup> ·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	

<ul style="list-style-type: none"> <li>• maximum</li> </ul>	300 mV
<ul style="list-style-type: none"> <li>• typical</li> </ul>	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	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	500 ms
output current	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	3.7 A
<ul style="list-style-type: none"> <li>• rated range</li> </ul>	0 ... 3.7 A; +50 ... +70 °C: Derating 3.5%/K; at +70 °C Iout rated 1.1 A
supplied active power typical	89 W
product feature	
<ul style="list-style-type: none"> <li>• bridging of equipment</li> </ul>	No
<b>Efficiency</b>	
efficiency in percent	87 %
power loss [W]	
<ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> </ul>	14 W
<ul style="list-style-type: none"> <li>• during no-load operation maximum</li> </ul>	0.75 W
<b>Closed-loop control</b>	
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	
<ul style="list-style-type: none"> <li>• load step 10 to 90% typical</li> </ul>	4 ms
<ul style="list-style-type: none"> <li>• load step 90 to 10% typical</li> </ul>	4 ms
<b>Protection and monitoring</b>	
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	-
<b>Safety</b>	
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"> <li>• maximum</li> </ul>	3.5 mA
<ul style="list-style-type: none"> <li>• typical</li> </ul>	0.4 mA
protection class IP	IP20
<b>Approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• UL approval</li> </ul>	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)
<ul style="list-style-type: none"> <li>• CSA approval</li> </ul>	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)
<ul style="list-style-type: none"> <li>• cCSAus, Class 1, Division 2</li> </ul>	No
<ul style="list-style-type: none"> <li>• ATEX</li> </ul>	No
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> </ul>	No
<ul style="list-style-type: none"> <li>• NEC Class 2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>	No
<ul style="list-style-type: none"> <li>• FM registration</li> </ul>	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
• French marine classification society (BV)	No
• DNV GL	Yes
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
<b>EMC</b>	
standard	
• for emitted interference	EN 55022 Class B
• for mains harmonics limitation	EN 61000-3-2
• for interference immunity	EN 61000-6-2
<b>environmental conditions</b>	
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
<b>Mechanics</b>	
type of electrical connection	screw-type terminals
• at input	L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm <sup>2</sup>
• at output	+ : 1 screw terminal for 0.5 ... 2.5 mm <sup>2</sup> ; - : 2 screw terminals for 0.5 ... 2.5 mm <sup>2</sup>
• for auxiliary contacts	-
width of the enclosure	52.5 mm
height of the enclosure	80 mm
depth of the enclosure	100 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
net weight	0.32 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Removable spring-type terminal 6EP1971-5BA00
MTBF at 40 °C	2 776 544 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

