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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 *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	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
● 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	25 mV
voltage peak	
● maximum	300 mV

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● typical	20 mV
adjustable output voltage	22.2 ... 26.4 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
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
product feature	
● 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	Yes, according to EN 60950-1
● typical	1.4 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)
● NEC Class 2	Yes; according to UL1310, File E151273
● EAC approval	Yes
type of certification	
● CB-certificate	Yes
certificate of suitability	
● IECEx	No
● ATEX	No

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● ULhazloc approval	No
● cCSAus, Class 1, Division 2	No
● FM registration	No
certificate of suitability shipbuilding approval	Yes
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	Yes
● French marine classification society (BV)	No
● Lloyds Register of Shipping (LRS)	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	not applicable
● for interference immunity	EN 61000-6-2
environmental 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
Mechanics	
type of electrical connection	screw-type terminals
● 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	-
width of the enclosure	30 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	0.17 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	3 838 624 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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