SIEMENS

Data sheet 6EP1332-5BA20

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 $A^2 \cdot s$
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	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 Iout 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

● French marine classification society (BV)	No
● DNV GL	Yes
● Lloyds Register of Shipping (LRS)	No
● Nippon Kaiji Kyokai (NK)	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	EN 61000-3-2
● 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	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)