SIEMENS

Data sheet 6EP1332-5BA20

SITOP PSU100C 24 V/3.7 A NEC CLASS 2
SITOP PSU100C 24 V/3,7 A STABILIZED POWER SUPPLY INPUT: 120/230 V AC (110-300 V DC) OUTPUT: 24 V/3,7 A DC OUTPUT LIMITED NEC CLASS 2

Input	
Input	1-phase AC or DC
Rated voltage value Vin rated	100 ... 230 V
Voltage range AC	85 ... 264 V
Input voltage	
• for DC	110 ... 300 V
Wide-range input	Yes
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms; at Vin = 230 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 100 V	1.88 A
• at rated input voltage 230 V	0.95 A
Switch-on current limiting (+25 °C), max.	30 A
I^2t, max.	3 $A^2 \cdot s$
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C

Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Residual ripple peak-peak, max.	200 mV
Residual ripple peak-peak, typ.	90 mV

Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	60 mV
Product function Output voltage adjustable	No
Output voltage setting	-
Status display	Green LED for output voltage OK
On/off behavior	Overshoot of Vout approx. 1 %
Startup delay, max.	1.5 s
Voltage rise, typ.	500 ms
Rated current value Iout rated	3.7 A
Current range	0 ... 3.7 A
• Note	+55 ... +70 °C: Derating 3,5%/K
Active power supplied typical	89 W
Parallel switching for enhanced performance	No

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	87 %
Power loss at Vout rated, Iout rated, approx.	14 W
Active power loss during no-load operation maximum	0.75 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.1 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %
Load step setting time 10 to 90%, typ.	4 ms
Load step setting time 90 to 10%, typ.	4 ms

Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	4 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Overload/short-circuit indicator	-

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current	
• maximum	3.5 mA
• typical	0.4 mA
CE mark	Yes
UL/CSA approval	Yes

UL/cUL (CSA) approval	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)
Explosion protection	ATEX (EX) II 3G Ex nA IIC T4; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	Yes
FM approval	-
CB approval	Yes
Marine approval	GL, ABS
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature	
• during operation	-20 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²
• Output	+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²
• Auxiliary	-
Width of the enclosure	52.5 mm
Height of the enclosure	80 mm
Depth of the enclosure	100 mm
Weight, approx.	0.32 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Removable spring-type terminal 6EP1971-5BA00
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)