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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 (DC 110-300 V) output: 24 V DC/3.7 A Restricted output 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	
• at DC	110 ... 300 V
Wide-range input	Yes
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 230 V
Mains buffering at Iout rated, min.	20 ms; at Vin = 230 V
Rated line frequency 1	50 Hz
Rated line frequency 2	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

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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 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.2 %
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	+50 ... +70 °C: Derating 3.5%/K; at +70 °C Iout rated 1.1 A
Supplied active power 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
Power loss [W] 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

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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
Degree of protection (EN 60529)	IP20

Approvals	
CE mark	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	IECEx Ex nA IIC T4 Gc; ATEX (EX) II 3G Ex nA IIC T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4
FM approval	-
CB approval	Yes
Marine approval	ABS, DNV GL

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

environmental conditions	
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, 5 … 95% 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
Required spacing	
• top	50 mm
• bottom	50 mm

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• left	0 mm
• right	0 mm
Weight, approx.	0.32 kg
Product feature 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
MTBF at 40 °C	2 776 544 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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