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Data sheet 6EP1333-7CA00

SITOP PSU100P 24 V/5 A IP67
SITOP PSU100P IP67 Stabilized power supply input: 120/230 V AC, output: 24 V DC/5 A



Input	
Input	1-phase AC
Supply voltage	
• 1 at AC Rated value	120 V
• 2 at AC Rated value	230 V
• Note	Automatic range selection
Input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	170 ... 264 V
Wide-range input	No
Overvoltage resistance	Implemented internally with varistor
Mains buffering at Iout rated, min.	40 ms; at Vin = 120/230 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 120 V	2.25 A
• at rated input voltage 230 V	1.24 A
Switch-on current limiting (+25 °C), max.	15 A

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I^2t, max.	0.6 $A^2 \cdot s$
Built-in incoming fuse	T 3.15 A
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic C/B

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.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV
Product function Output voltage adjustable	No
Status display	Green LED: 24 V OK; red LED flashing: "overload/short-circuit"
Signaling	Relay contact (NO contact, rating 30 V AC/ 0.5 A; 30 V DC/1 A) for 24 V OK
On/off behavior	Overshoot of Vout < 3 %
Startup delay, max.	1.5 s
Voltage rise, typ.	22 ms
Voltage increase time of the output voltage maximum	100 ms
Rated current value Iout rated	5 A
Current range	0 ... 5 A
Supplied active power typical	133 W
Short-term overload current	
• on short-circuiting during the start-up typical	20 A
• at short-circuit during operation typical	20 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	50 ms
• at short-circuit during operation	50 ms
Parallel switching for enhanced performance	Yes; Symmetric wiring required
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	90 %
Power loss at Vout rated, Iout rated, approx.	12.9 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.2 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	1 %
Setting time maximum	2 ms

Protection and monitoring

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Output overvoltage protection	< 29 V
Current limitation, typ.	5.5 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value	
• maximum	6 A
• typical	5 A
Overload/short-circuit indicator	Red LED flashing for "overload/short-circuit"

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	1 mA
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1)
Explosion protection	No
FM approval	-
CB approval	No
Marine approval	No
Degree of protection (EN 60529)	IP67, enclosure type 5 indoor

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	-25 ... +60 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	3K6 without direct sunlight

Mechanics	
Connection technology	screw-type terminals
Connections	
• Supply input	L1, N, PE: Plug connector 7/8" (counterpart see "Operating Instructions (compact)")
• Output	+, -: Plug connector 7/8" (counterpart see "Operating Instructions (compact)")
• Auxiliary	Alarm signals: M12 plug-in connector 4-pin

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Product function	
• removable terminal at input	Yes
• removable terminal at output	Yes
Width of the enclosure	120 mm
Height of the enclosure	181 mm
Depth of the enclosure	60.5 mm
Required spacing	
• top	50 mm
• bottom	0 mm
• left	0 mm
• right	0 mm
Weight, approx.	1.1 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Wall mounting
MTBF at 40 °C	1 500 000 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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