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Data sheet 6EP1331-1LD00

PSU100D 24 V/2.1 A
PSU100D 24 V/2.1 A Stabilized power supply input: 100-240 V AC output: DC 24 V/2,1 A

Input	
Input	1-phase AC
Rated voltage value Vin rated	100 ... 240 V
Voltage range AC	85 ... 264 V
Wide-range input	Yes
Mains buffering	at Vin = 115/230 V
Mains buffering at Iout rated, min.	15 ms; at Vin = 115/230 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	1.1 A
• at rated input voltage 240 V	0.7 A
Switch-on current limiting (+25 °C), max.	60 A
I^2t, max.	1.2 $A^2 \cdot s$
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C or from 16 A characteristic B

Output

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Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	2 %
Static mains compensation, approx.	0.5 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	100 mV
Adjustment range	22 ... 28 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
On/off behavior	Overshoot of Vout < 2 %
Startup delay, max.	1 s
Voltage increase time of the output voltage maximum	30 ms
Rated current value Iout rated	2.1 A
Current range	0 ... 2.1 A
• Note	+50 ... +70 °C: Derating 2.5%/K
Supplied active power typical	50 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	86 %
Power loss at Vout rated, Iout rated, approx.	8 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.5 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	5 %
Protection and monitoring	
Output overvoltage protection	< 35 V
Current limitation, typ.	2.5 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value	
• typical	6 A
Overload/short-circuit indicator	-
Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
Protection class	Class I
Leakage current	

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• maximum	3.5 mA
• typical	1 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 (UL 60950-1, CSA C22.2 No. 60950-1), File E151273
Explosion protection	-
FM approval	-
CB approval	Yes
Marine approval	-

EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

environmental conditions	
Ambient temperature	
• during operation	-10 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C

Mechanics	
Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: 1 screw terminal each for 0.3 ... 1.3 mm² single-core/finely stranded
• Output	+, -: 1 screw terminal each for 0.3 ... 1.3 mm²
• Auxiliary	-
Width of the enclosure	97 mm
Height of the enclosure	128 mm
Depth of the enclosure	38 mm
Required spacing	
• top	20 mm
• bottom	0 mm
• left	20 mm
• right	20 mm
Weight, approx.	0.35 kg
Installation	Wall mounting
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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