SIEMENS

Product data sheet 6EP1331-2BA10

SITOP POWER 0.5 STABILIZED POWER SUPPLY INPUT: 120/230 V AC OUTPUT: 24 V DC/0.5 A

Technical specifications	
Product	SITOP power
Power supply, type	24 V/0.5 A
Input	
Input	1-phase AC
Supply voltage / with AC / minimum rated value	120 V
Supply voltage / with AC / maximum rated value	230 V
Supply voltage	
• with AC	93 … 264 V
Wide-range input	Yes
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	10 ms
Mains buffering	at Vin = 230 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at rated input voltage 120 V	0.22 A
Input current / at rated input voltage 230 V	0.13 A
Switch-on current limiting (+25 °C), max.	23 A
Duration of inrush current limiting / at 25 °C / typical	1 ms
I^2t, max.	0.3 $A^2 \cdot s$
Built-in incoming fuse	T 2 A/250 V (not accessible)

Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 3 A characteristic C
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.2 %
Static load balancing, approx.	0.7 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	150 mV
Product function / Output voltage adjustable	No
Output voltage setting	-
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	1.5 s
Voltage rise, typ.	20 ms
Rated current value Iout rated	0.5 A
Current range	0 … 0.5 A
Active power supplied / typical	12 W
Constant overload current / on short-circuiting during the start-up / typical	0.6 A
Constant overload current / at short-circuit during operation / typical	0.6 A
Parallel switching for enhanced performance	No
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	74 %
Power loss at Vout rated, Iout rated, approx.	4.2 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	0.7 %
Load step setting time 50 to 100%, typ.	1.5 ms
Load step setting time 100 to 50%, typ.	1.5 ms
Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950
Current limitation	0.55 … 0.65 A
Property of the output / Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic up to 0 V
Enduring short circuit current / RMS value / maximum	0.65 A
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
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289, cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	-
FM approval	-
CB approval	No
Marine approval	-
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature / during operation	-25 … +70 °C
• Note	with natural convection
Ambient temperature / during transport	-40 … +70 °C
Ambient temperature / during storage	-40 … +70 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
Mechanics	
Connection technology	screw-type terminals
Connections / Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
Connections / Output	+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²
Connections / Auxiliary	-
Width / of the enclosure	22.5 mm
Height / of the enclosure	80 mm
Depth / of the enclosure	91 mm
Installation width	22.5 mm
Mounting height	180 mm
Weight, approx.	0.11 kg
Product property / of the enclosure / housing for side-by-side mounting	Yes
Mounting type / wall mounting	No

Mounting type / Standard rail mounting	Yes
Mounting type / S7 rail mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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