SIEMENS

Product data sheet 6EP1323-2BA00

SITOP PSU100S 12 V/14 A STABILIZED POWER SUPPLY
INPUT: 120/230 V AC OUTPUT: 12 V/14 A DC

Technical specifications	
Product	SITOP PSU100S
Power supply, type	12 V/14 A
Input	
Input	1-phase AC
Supply voltage / 1 / at AC / nominal value	120 V
Supply voltage / 2 / at AC / nominal value	230 V
Voltage range	
• Note	Automatic range selection
Input voltage / 1 / at AC	85 … 132 V
Input voltage / 2 / at AC	170 … 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms
Mains buffering	at Vin = 93/187 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 120 V	3.24 A
Input current / at nominal level of the input voltage 230 V	1.41 A
Switch-on current limiting (+25 °C), max.	60 A
Built-in incoming fuse	T 6.3 A/250 V (not accessible)

Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A, characteristic C
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	12 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	20 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	100 mV
Adjustment range	11.5 … 15.5 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 12 V OK
On/off behavior	Overshoot of Vout < 3 %
Startup delay, max.	0.3 s
Voltage rise, typ.	10 ms
Rated current value Iout rated	14 A
Current range	0 … 14 A
• Note	4.5 A up to +70 °C, 14 A up to +50°C
delivered active power / typ.	168 W
short-term overload current / at short-circuit during run-up / typical	40 A
Duration of overloading ability for excess current / on short-circuiting during the start-up	800 ms
short-term overload current / at short-circuit during operation / typical	40 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	800 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	87 %
Power loss at Vout rated, Iout rated, approx.	24 W
Closed-loop control	
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	5 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms
Protection and monitoring	
Output overvoltage protection	< 20 V
Current limitation	14 … 16.4 A

Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current / Effective level / typical	16.4 A
• Note	overload capability 150 % Iout rated up to 5 s/min
Overload/short-circuit indicator	-
Safety	
Primary/secondary isolation	Yes
Potential separation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	0.8 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1, UL 1604)
Explosion protection	ATEX and UL 1604 Class I, Div. 2, Group ABCD in preparation
FM approval	-
CB approval	Yes
Marine approval	GL in process
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 / in operation	-10 … +70 °C
• Note	with natural convection
Ambient temperature / on transport	-40 … +85 °C
Ambient temperature / in 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: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
Connections / Output	L+, M: 2 screw terminals each for 0.5 ... 2.5 mm²
Connections / Auxiliary	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²
Width / of the housing	70 mm
Height / of the housing	125 mm
Depth / of the housing	125 mm

Installation width	70 mm
Mounting height	225 mm
Weight, approx.	0.8 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Type of mounting / wall mounting	No
Type of fixing / cap rail mounting	Yes
Type of mounting / S7-300 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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