SIEMENS

Product data sheet 6EP1336-2BA10

SITOP PSU100S 20 A STABILIZED POWER SUPPLY
INPUT: 120/230 V AC OUTPUT: 24 V/20 A DC

Technical specifications	
Product	SITOP PSU100S
Power supply, type	24 V/20 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	176 … 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 = 120/230 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 120 V	7.5 A
Input current / at nominal level of the input voltage 230 V	3.5 A
Switch-on current limiting (+25 °C), max.	11 A
I^2t, max.	10 $A^2 \cdot s$

Built-in incoming fuse	T 10 A (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C or circuit-breaker 3RV2411-1JA10 (120 V) or 3RV2411-1FA10 (230 V)
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.5 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	150 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Adjustment range	24 … 28 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
• Note	max. 480 W
Status display	Green LED for 24 V OK
Signaling	Relay contact (NO contact, rating 50 V DC/ 0.3 A) for "24 V OK"
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	1.5 s
Voltage rise, typ.	50 ms
Voltage increase time / of the output voltage / maximum	500 ms
Rated current value Iout rated	20 A
Current range	0 … 20 A
• Note	24 A up to +45°C; +60 ... +70 °C: Derating 5%/K
delivered active power / typ.	480 W
short-term overload current / at short-circuit during run-up / typical	35 A
Duration of overloading ability for excess current / on short-circuiting during the start-up	100 ms
short-term overload current / at short-circuit during operation / typical	35 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	100 ms
Parallel switching for enhanced performance	Yes
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.	53 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	3 %
Setting time / maximum	10 ms

Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	21 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current / Effective level / maximum	7 A
Enduring short circuit current / Effective level / typical	
• 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	1 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; in preparation: cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	ATEX (EX) II 3G Ex nA nC IIC T4 Gc; 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	GL
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	0 … 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	L1, N, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded
Connections / Output	+, -: 2 screw terminals each for 0.2 ... 4 mm²

Connections / Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²
Width / of the housing	115 mm
Height / of the housing	145 mm
Depth / of the housing	150 mm
Installation width	120 mm
Mounting height	245 mm
Weight, approx.	2.4 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Mounting type / wall mounting	No
Type of mounting / standard rail mounting	Yes
Mounting type / S7-300 rail mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Buffer module
Mechanical accessories	Device identification label 20 mm × 7 mm, pastel-turpuoise 3RT1900 -1SB20
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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