SIEMENS

Data sheet 6EP1336-2BA10

SITOP PSU100S/1AC/24VDC/20A

SITOP PSU100S 20 A stabilized power supply input: 120/230 V AC output: 24 V DC/20 A *Ex approval no longer available*

Input	
Input	1-phase AC
● Note	Automatic range selection
supply voltage	
● 1 at AC rated value	120 V
● 2 at AC rated value	230 V
input voltage	
● 1 at AC	85 ... 132 V
● 2 at AC	176 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 120/230 V
Mains buffering at Iout rated, min.	20 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	7.5 A
● at rated 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
● output voltage at output 1 at DC rated value	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 function output voltage adjustable	Yes
Output voltage setting	via potentiometer; 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
supplied active power typical	480 W
short-term overload current	
● on short-circuiting during the start-up typical	35 A
● at short-circuit during operation typical	35 A
duration of overloading capability for excess current	
● on short-circuiting during the start-up	100 ms
● at short-circuit during operation	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
property of the output short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
● maximum	7 A
overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
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
● typical	1 mA
Degree of protection (EN 60529)	IP20
Approvals	
CE mark	Yes
UL/CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
UL/CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
certificate of suitability cCSAus, Class 1, Division 2	No
certificate of suitability ATEX	No
certificate of suitability	
● IECEx	No
● NEC Class 2	No
● ULhazloc approval	No
FM approval	No
CB approval	Yes
certificate of suitability	
● EAC approval	Yes
Marine approval	Yes
Marine approval	DNV GL
Marine classification association American Bureau of Shipping Europe Ltd. (ABS)	No

Marine classification association French marine classification society (BV)	No
Marine classification association DNV GL	Yes
Marine classification association Lloyds Register of Shipping (LRS)	No
Marine classification association Nippon Kaiji Kyokai (NK)	No
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
● during operation	0 ... 70 °C
— Note	with natural convection
● during transport	-40 ... +85 °C
● during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 … 95% 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
● Output	+, -: 2 screw terminals each for 0.2 ... 4 mm²
● Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²
width of the enclosure	115 mm
height of the enclosure	145 mm
depth of the enclosure	150 mm
required spacing	
● top	50 mm
● bottom	50 mm
● left	0 mm
● right	0 mm
Weight, approx.	2.4 kg
product feature of the enclosure housing can be lined up	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
MTBF at 40 °C	1 778 916 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)