Data sheet

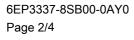
SITOP PSU8200/1AC/24VDC/40A SITOP PSU8200 24 V/40 A Stabilized power supply input: 120/230 V AC, output: 24 V DC/40 A



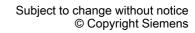
Input	
Input	1-phase and 2-phase AC
• Note	Automatic selection; startup starting from Ue ≥ 90/180 V
supply voltage	
• 1 at AC rated value	120 V
• 2 at AC rated value	230 V
input voltage	
● 1 at AC	85 132 V
• 2 at AC	170 264 V
Wide-range input	No
Mains buffering	at Vin = 230 V
Mains buffering at lout rated, min.	25 ms; at Vin = 230 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	45 65 Hz
input current	
 at rated input voltage 120 V 	15 A
 at rated input voltage 230 V 	9 A
Switch-on current limiting (+25 °C), max.	50 A

I²t, max.	8 A ² ·s
Built-in incoming fuse	Yes
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)

	3RV2411-13A10 (230 V)
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.1 %
Residual ripple peak-peak, max.	100 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	220 mV
Adjustment range	24 28 V
product function output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 960 W
Status display	Green LED for 24 V OK; LED yellow for overload; LED red for short-circuit or latching shutdown
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
On/off behavior	Overshoot of Vout approx. 3 %
Startup delay, max.	1.5 s
Voltage rise, typ.	30 ms
Rated current value lout rated	40 A
Current range	0 40 A
Note	+60 +70 °C: Derating 3%/K
supplied active power typical	960 W
short-term overload current	
on short-circuiting during the start-up typical	120 A
at short-circuit during operation typical	120 A
duration of overloading capability for excess current	
on short-circuiting during the start-up	25 ms
at short-circuit during operation	25 ms
constant overload current	
on short-circuiting during the start-up typical	60 A
Parallel switching for enhanced performance	Yes; switchable characteristic
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, lout rated, approx.	92 %



Power loss at Vout rated, lout rated, approx.



82 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %),	1 %
max.	
Dynamic load smoothing (lout: 50/100/50 %), Uout ±	1.9 %
typ.	
Load step setting time 50 to 100%, typ.	2 ms
Load step setting time 100 to 50%, typ.	2 ms
Dynamic load smoothing (lout: 10/90/10 %), Uout ±	3.8 %
typ.	
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms
setting time maximum	1 ms

Protection and monitoring	
Output overvoltage protection	< 32 V
Current limitation, typ.	41 A
property of the output short-circuit proof	Yes
Short-circuit protection	Alternatively, constant current characteristic approx. 41 A or latching shutdown
enduring short circuit current RMS value	
● typical	41 A
overcurrent overload capability in normal operation	250% lout rated up to 25 ms, 150% lout rated up to 5 s/min
Overload/short-circuit indicator	LED yellow for "overload", LED red for "latching shutdown" or "short-circuit"

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	0.1 mA
• typical	0.1 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; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	IECEx Ex nA nC IIC T3 Gc; ATEX (EX) II 3G Ex nA nC IIC T3; cULus (Hazloc) Class I, Div. 2, Group ABCD, T3; File E330455
certificate of suitability NEC Class 2	No
FM approval	•
CB approval	Yes
Marine approval	ABS, DNV GL



EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	-
Noise immunity	EN 61000-6-2

environmental conditions	
ambient temperature	
during operation	-25 +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	L, N, PE: 1 screw terminal each for 0.2 4 mm² single-core/finely stranded
Output	+, -: 2 screw terminals each for 0.5 10 mm²
• Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.14 1.5 mm²
width of the enclosure	145 mm
height of the enclosure	145 mm
depth of the enclosure	150 mm
required spacing	
● top	40 mm
• bottom	40 mm
● left	0 mm
• right	0 mm
Weight, approx.	3.1 kg
product feature of the enclosure housing for side-by- side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Buffer module, redundancy module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900- 1SB20
MTBF at 40 °C	838 156 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

