



SITOP PSU8200 24 V/10 A STABILIZED POWER SUPPLY INPUT:
120/230 V AC OUTPUT: 24 V/10 A DC

Technical specifications

Product	SITOP PSU8200
Power supply, type	24 V/10 A

Input

Input	1-phase AC
Supply voltage 1 with AC Rated value	120 V
Supply voltage 2 with AC Rated value	230 V
• Note	Automatic range selection
Input voltage 1 with AC	85 ... 132 V
Input voltage 2 with AC	170 ... 264 V
Wide-range input	No
Mains buffering at lout rated, min.	35 ms; at $V_{in} = 120/230\text{ V}$
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current at rated input voltage 120 V Rated value	4 A
Input current at rated input voltage 230 V Rated value	1.9 A
Switch-on current limiting (+25 °C), max.	10 A
I^2t , max.	0.3 A ² ·s
Built-in incoming fuse	T 6.3 A (not accessible)

Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker at 1-phase operation: from 6 A (10 A) characteristic C (B); required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2011-1EA10 (setting 3.8 A) or 3RV2711-1ED10 (UL 489) at 230 V; 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) at 400/500 V
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Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static $\pm$	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.3 %
Residual ripple peak-peak, max.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Adjustment range	24 ... 28.8 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 240 W
Status display	Green LED for 24 V OK
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 s
Voltage rise, typ.	70 ms
Rated current value Iout rated	10 A
Current range	0 ... 10 A
• Note	+60 ... +70 °C: Derating 2%/K; as of Ua>24 V: 4% [Ia]/V [Ua]; at Ue<100 V/<200 V: 80% Ia rated
Active power supplied typical	240 W
Constant overload current on short-circuiting during the start-up typical	12 A
Short-term overload current at short-circuit during operation typical	30 A
Duration of overloading capability for excess current at short-circuit during operation	25 ms
Parallel switching for enhanced performance	Yes; switchable characteristic
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	94 %
Power loss at Vout rated, Iout rated, approx.	18 W
Active power loss during no-load operation maximum	1.5 W

Closed-loop control	
Dynamic mains compensation (Vin rated ± 15 %), max.	0.1 %

Dynamic load smoothing (I _{out} : 50/100/50 %), U _{out} ± typ.	4 %
Load step setting time 50 to 100%, typ.	0.25 ms
Load step setting time 100 to 50%, typ.	0.5 ms
Dynamic load smoothing (I _{out} : 10/90/10 %), U _{out} ± typ.	4 %
Load step setting time 10 to 90%, typ.	0.25 ms
Load step setting time 90 to 10%, typ.	0.5 ms
Setting time maximum	1 ms

Protection and monitoring

Output overvoltage protection	< 33 V
Current limitation, typ.	12 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Alternatively, constant current characteristic approx. 12 A or latching shutdown
Enduring short circuit current RMS value typical	12 A
Overcurrent overload capability in normal operation	overload capability 150 % I _{out} rated up to 5 s/min
Overload/short-circuit indicator	LED yellow for "overload", LED red for "latching shutdown"

Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage U _{out} acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current maximum	3.5 mA
Leakage 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
Explosion protection	ATEX (EX) II 3G Ex nA nC IIC T3 Gc; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T3
Certificate of suitability IECEx	Yes
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Marine approval	GL, ABS
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 during operation	-25 ... +70 °C
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• Note

	with natural convection
Ambient temperature during transport	-40 ... +85 °C
Ambient temperature during 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 0.2 ... 2.5 mm ² single-core/finely stranded
Connections Output	+, -: 2 screw terminals each for 0.2 ... 2.5 mm ²
Connections Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm ² ; 15, 16 (Remote): 1 screw terminal each for 0.14 ... 1.5 mm ²
Product function removable terminal at input	No
Product function removable terminal at output	No
Width of the enclosure	55 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Weight, approx.	1 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Buffer module
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)