

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



Input	
Input	1-phase AC
Supply voltage	
<ul style="list-style-type: none"> • 1 at AC Rated value • 2 at AC Rated value • Note 	120 V 230 V Automatic range selection
Input voltage	
<ul style="list-style-type: none"> • 1 at AC • 2 at AC 	85 ... 132 V 170 ... 264 V
Wide-range input	No
Mains buffering at I _{out} rated, min.	35 ms; at V _{in} = 120/230 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
<ul style="list-style-type: none"> • at rated input voltage 120 V • at rated input voltage 230 V 	4 A 1.9 A
Switch-on current limiting (+25 °C), max.	10 A
I ² t, 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 V_{out} 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 V_{out} approx. 3 %
Startup delay, max.	1 s
Voltage rise, typ.	70 ms
Rated current value I_{out} rated	10 A
Current range	0 ... 10 A
<ul style="list-style-type: none"> Note 	+60 ... +70 °C: Derating 2%/K; as of $U_a > 24$ V: 4% [I_a]/V [U_a]; at $U_e < 100$ V / < 200 V: 80% I_a rated
Active power supplied typical	240 W
Short-term overload current	
<ul style="list-style-type: none"> at short-circuit during operation typical 	30 A
Duration of overloading capability for excess current	
<ul style="list-style-type: none"> at short-circuit during operation 	25 ms
Constant overload current	
<ul style="list-style-type: none"> on short-circuiting during the start-up typical 	12 A
Parallel switching for enhanced performance	Yes; switchable characteristic
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at V_{out} rated, I_{out} rated, approx.	94 %
Power loss at V_{out} rated, I_{out} rated, approx.	18 W
Power loss [W] during no-load operation maximum	1.5 W

Closed-loop control

Dynamic mains compensation (V_{in} rated ± 15 %), max.	0.1 %
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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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • maximum • typical 	3.5 mA 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, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1, UL 1604)
Explosion protection	IECEX Ex nA nC IIC T4 Gc; 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, 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
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Operating data

Ambient temperature	
<ul style="list-style-type: none"> • during operation — Note • during transport • during storage 	<p>-25 ... +70 °C with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
<ul style="list-style-type: none"> • Supply input • Output • Auxiliary 	<p>L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.2 ... 2.5 mm²</p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²;</p> <p>15, 16 (Remote): 1 screw terminal each for 0.14 ... 1.5 mm²</p>
Width of the enclosure	55 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Weight, approx.	1 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Buffer module
MTBF at 40 °C	1 292 102 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)