

SITOP PSU200M/1-2AC/24VDC/10A/CO  
 SITOP PSU200M plus 10 A Stabilized power supply input: AC 120-230/230-500 V output: DC 24 V/10 A Option for with protective varnish



Figure similar

Input	
Input	1-phase and 2-phase AC
• Note	Set by means of selector switch on the device
supply voltage	
• 1 at AC	120 ... 230 V
• 2 at AC	230 ... 500 V
input voltage	
• 1 at AC	85 ... 264 V
• 2 at AC	176 ... 550 V
Wide-range input	Yes
Overvoltage resistance	1300 V <sub>peak</sub> , 1.3 ms
Mains buffering	at Vin = 120/230 V, typ. 150 ms at Vin = 400 V
Mains buffering at lout rated, min.	25 ms; at Vin = 120/230 V, typ. 150 ms at Vin = 400 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
input current	

<ul style="list-style-type: none"> <li>• at rated input voltage 120 V</li> <li>• at rated input voltage 230 V</li> <li>• at rated input voltage 500 V</li> </ul>	4.4 A
	2.4 A
	1.1 A
Switch-on current limiting (+25 °C), max.	35 A
I <sup>2</sup> t, max.	4 A <sup>2</sup> ·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

Output	
Output	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.1 %
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
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 <sub>out</sub> approx. 3 %
Startup delay, max.	1 s
Voltage rise, typ.	50 ms
Rated current value I <sub>out</sub> rated	10 A
Current range	0 ... 10 A
<ul style="list-style-type: none"> <li>• Note</li> </ul>	+60 ... +70 °C: Derating 2%/K (at 120 V, 230 V) or 3.5%/K (at 400 V)
supplied active power typical	240 W
short-term overload current	
<ul style="list-style-type: none"> <li>• at short-circuit during operation typical</li> </ul>	30 A
duration of overloading capability for excess current	
<ul style="list-style-type: none"> <li>• at short-circuit during operation</li> </ul>	25 ms
constant overload current	
<ul style="list-style-type: none"> <li>• on short-circuiting during the start-up typical</li> </ul>	12 A
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.	91 %
Power loss at Vout rated, Iout rated, approx.	24 W
power loss [W] during no-load operation maximum	6 W

#### Closed-loop control

Dynamic mains compensation (Vin rated $\pm 15\%$ ), max.	0.1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout $\pm$ typ.	3 %
Load step setting time 50 to 100%, typ.	2 ms
Load step setting time 100 to 50%, typ.	2 ms
setting time maximum	5 ms

#### Protection and monitoring

Output overvoltage protection	< 35 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"> <li>• typical</li> </ul>	12 A
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 Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
leakage current <ul style="list-style-type: none"> <li>• maximum</li> <li>• typical</li> </ul>	3.5 mA 0.32 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
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 NEC Class 2	No
FM approval	-
CB approval	No
Marine approval	ABS, DNV GL

#### EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2

Noise immunity	EN 61000-6-2
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### environmental conditions

ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	-25 ... +70 °C
<ul style="list-style-type: none"> <li>— Note</li> </ul>	with natural convection
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation

### Mechanics

Connection technology	screw-type terminals
Connections	
<ul style="list-style-type: none"> <li>Supply input</li> </ul>	L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm <sup>2</sup> single-core/finely stranded
<ul style="list-style-type: none"> <li>Output</li> </ul>	+, -: 2 screw terminals each for 0.2 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>Auxiliary</li> </ul>	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm <sup>2</sup>
width of the enclosure	70 mm
height of the enclosure	125 mm
depth of the enclosure	121 mm
required spacing	
<ul style="list-style-type: none"> <li>top</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>bottom</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>right</li> </ul>	0 mm
Weight, approx.	0.8 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	1 055 408 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)