



SITOP PSU200M/1-2AC/24VDC/5A

SITOP PSU200M 5 A stabilized power supply input: 120/230-500 V AC  
output: 24 V DC/5 A \*Ex approval no longer available\*

Input	
type of the power supply network	1-phase and 2-phase AC
supply voltage at AC	Set by means of selector switch on the device; starting from $V_{in} > 90/180$ V
<ul style="list-style-type: none"> <li>initial value</li> </ul>	
supply voltage	120 ... 230 V
<ul style="list-style-type: none"> <li>1 at AC</li> <li>2 at AC</li> </ul>	
input voltage	230 ... 500 V
<ul style="list-style-type: none"> <li>1 at AC</li> <li>2 at AC</li> </ul>	
design of input wide range input	Yes
overvoltage overload capability	1300 V <sub>peak</sub> , 1.3 ms
operating condition of the mains buffering	at $V_{in} = 120/230$ V, typ. 150 ms at $V_{in} = 400$ V
buffering time for rated value of the output current in the event of power failure minimum	25 ms
operating condition of the mains buffering	at $V_{in} = 120/230$ V, typ. 150 ms at $V_{in} = 400$ V
line frequency	50 Hz
<ul style="list-style-type: none"> <li>1 rated value</li> <li>2 rated value</li> </ul>	
line frequency	60 Hz
input current	47 ... 63 Hz
<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>	2.2 A
current limitation of inrush current at 25 °C maximum	1.2 A
I <sup>2</sup> t value maximum	0.61 A
fuse protection type	35 A
<ul style="list-style-type: none"> <li>in the feeder</li> </ul>	1.7 A <sup>2</sup> ·s
	T 3.15 A (not accessible)
	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	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	24 V
<ul style="list-style-type: none"> <li>at output 1 at DC rated value</li> </ul>	
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	0.1 %
<ul style="list-style-type: none"> <li>on slow fluctuation of input voltage</li> </ul>	

<ul style="list-style-type: none"> <li>on slow fluctuation of ohm loading</li> </ul>	0.1 %
residual ripple	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	50 mV
voltage peak	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	200 mV
adjustable output voltage	24 ... 28.8 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	Overshoot of Vout approx. 3 %
response delay maximum	1 s
voltage increase time of the output voltage	
<ul style="list-style-type: none"> <li>typical</li> </ul>	50 ms
output current	
<ul style="list-style-type: none"> <li>rated value</li> <li>rated range</li> </ul>	5 A 0 ... 5 A
supplied active power typical	120 W
short-term overload current	
<ul style="list-style-type: none"> <li>at short-circuit during operation typical</li> </ul>	15 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>	6 A
product feature	
<ul style="list-style-type: none"> <li>bridging of equipment</li> </ul>	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
<b>Efficiency</b>	
efficiency in percent	88 %
power loss [W]	
<ul style="list-style-type: none"> <li>at rated output voltage for rated value of the output current typical</li> <li>during no-load operation maximum</li> </ul>	17 W 4 W
<b>Closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	3 %
setting time	
<ul style="list-style-type: none"> <li>load step 50 to 100% typical</li> <li>load step 100 to 50% typical</li> </ul>	2 ms 2 ms
setting time	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	5 ms
<b>Protection and monitoring</b>	
design of the overvoltage protection	< 35 V
response value current limitation typical	6 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 5.5 A or latching shutdown
enduring short circuit current RMS value	
<ul style="list-style-type: none"> <li>typical</li> </ul>	6 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
<b>Safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
<ul style="list-style-type: none"> <li>maximum</li> <li>typical</li> </ul>	3.5 mA 0.25 mA
protection class IP	IP20

Approvals	
certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• ATEX</li> </ul>	<p>Yes</p> <p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)</p> <p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)</p> <p>No</p> <p>No</p>
certificate of suitability <ul style="list-style-type: none"> <li>• IECEx</li> <li>• NEC Class 2</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p>
type of certification CB-certificate	Yes
certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> </ul>	Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• DNV GL</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</p>
EMC	
standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	<p>EN 55022 Class B</p> <p>EN 61000-3-2</p> <p>EN 61000-6-2</p>
environmental conditions	
ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	<p>-25 ... +70 °C; With natural convection; startup tested starting from -40 °C nominal voltage</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
environmental category acc. to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
Mechanics	
type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>	<p>screw-type terminals</p> <p>L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm<sup>2</sup> single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.2 ... 2.5 mm<sup>2</sup></p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm<sup>2</sup></p>
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> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
net weight	0.6 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Buffer module
MTBF at 40 °C	1 123 973 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

