



SITOP PSU8200/1AC/24VDC/5A

SITOP PSU8200 24 V/5 A stabilized power supply input: 120/230 V AC output: 24 V DC/5 A \*Ex approval no longer available\*

| Input  |   |
|--|---|
| type of the power supply network   | 1-phase AC  |
| supply voltage at AC   |   |
| • initial value  | Automatic range selection   |
| 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   |
| design of input wide range input   | No  |
| operating condition of the mains buffering   | at $V_{in} = 120/230 \text{ V}$   |
| buffering time for rated value of the output current in the event of power failure minimum | 35 ms   |
| operating condition of the mains buffering   | at $V_{in} = 120/230 \text{ V}$   |
| line frequency   |   |
| • 1 rated value  | 50 Hz   |
| • 2 rated value  | 60 Hz   |
| line frequency   | 47 ... 63 Hz  |
| input current  |   |
| • at rated input voltage 120 V   | 2.1 A   |
| • at rated input voltage 230 V   | 1.2 A   |
| current limitation of inrush current at 25 °C maximum                                      | 10 A  |
| I <sup>2</sup> t value maximum   | 0.2 A <sup>2</sup> ·s   |
| fuse protection type   | T 3.15 A (not accessible)   |
| • in the feeder  | 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   |   |
| • at output 1 at DC rated value  | 24 V  |
| relative overall tolerance of the voltage  | 3 %   |
| relative control precision of the output voltage   |   |
| • on slow fluctuation of input voltage   | 0.1 %   |
| • on slow fluctuation of ohm loading   | 0.2 %   |
| residual ripple  |   |
| • maximum  | 50 mV   |
| voltage peak   |   |

|   |   |
|---|---|
| • maximum   | 200 mV  |
| adjustable output voltage   | 24 ... 28.8 V   |
| product function output voltage adjustable  | Yes   |
| type of output voltage setting  | via potentiometer; max. 120 W   |
| 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  | 1.5 s   |
| voltage increase time of the output voltage   |   |
| • typical   | 30 ms   |
| output current  |   |
| • rated value   | 5 A   |
| • rated range   | 0 ... 5 A; As of Ua>24 V: 4% [Ia]/V [Ua]; at Ue<100 V/<200 V: 80% Ia rated      |
| supplied active power typical   | 120 W   |
| short-term overload current   |   |
| • at short-circuit during operation typical   | 15 A  |
| duration of overloading capability for excess current   |   |
| • at short-circuit during operation   | 25 ms   |
| constant overload current   |   |
| • on short-circuiting during the start-up typical   | 6 A   |
| product feature   |   |
| • bridging of equipment   | Yes; switchable characteristic  |
| number of parallel-switched equipment resources for increasing the power  | 2   |
| <b>Efficiency</b>   |   |
| efficiency in percent   | 93 %  |
| power loss [W]  |   |
| • at rated output voltage for rated value of the output current typical   | 9 W   |
| • during no-load operation maximum  | 1.5 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                | 2 %   |
| setting time  |   |
| • load step 50 to 100% typical  | 0.25 ms   |
| • load step 100 to 50% typical  | 0.5 ms  |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical              | 2 %   |
| setting time  |   |
| • load step 10 to 90% typical   | 0.25 ms   |
| • load step 90 to 10% typical   | 0.5 ms  |
| • maximum   | 1 ms  |
| <b>Protection and monitoring</b>  |   |
| design of the overvoltage protection  | < 33 V  |
| • typical   | 6 A   |
| property of the output short-circuit proof  | Yes   |
| design of short-circuit protection  | Alternatively, constant current characteristic approx. 6 A or latching shutdown |
| enduring short circuit current RMS value  |   |
| • typical   | 6 A   |
| overcurrent overload capability in normal operation   | overload capability 150 % Iout rated up to 5 s/min                              |
| 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   |   |
| • maximum   | 3.5 mA  |
| • typical   | 1 mA  |
| protection class IP   | IP20  |
| <b>Approvals</b>  |   |

|   |  |
|---|--|
| 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> <li>• Regulatory Compliance Mark (RCM)</li> </ul>  | <p>Yes</p> <p>Yes</p>  |
| 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>  |
| <b>EMC</b>  |  |
| 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>  |
| <b>environmental conditions</b>   |  |
| 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 according to IEC 60721   | Climate class 3K3, 5 ... 95% no condensation   |
| <b>Mechanics</b>  |  |
| type of electrical connection   | screw-type terminals   |
| <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>   | <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>; 15, 16 (Remote): 1 screw terminal each for 0.14 ... 1.5 mm<sup>2</sup></p> |
| width of the enclosure  | 45 mm  |
| height of the enclosure   | 125 mm   |
| depth of the enclosure  | 125 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  | 0.8 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  |
| mechanical accessories  | Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20  |
| MTBF at 40 °C   | 1 421 519 h  |
| other information   | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)  |



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