



SITOP PSU8200/3AC/48VDC/20A

SITOP PSU8200 48 V/20 A Stabilized power supplies Input: 3 400-500 V AC Output: 48 V/20 A DC

| Input | |
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| Input | 3-phase AC |
| Rated voltage value V_{in} rated | 400 ... 500 V |
| Voltage range AC | 320 ... 575 V |
| Wide-range input | Yes |
| Mains buffering | at $V_{in} = 400$ V |
| Mains buffering at I_{out} rated, min. | 10 ms; at $V_{in} = 400$ V |
| Rated line frequency 1 | 50 Hz |
| Rated line frequency 2 | 60 Hz |
| Rated line range | 45 ... 65 Hz |
| input current | |
| • at rated input voltage 400 V | 2 A |
| • at rated input voltage 500 V | 1.7 A |
| Switch-on current limiting (+25 °C), max. | 13 A |
| I^2t , max. | 2.24 A ² ·s |
| Protection in the mains power input (IEC 898) | Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) |
| Output | |
| Output | Controlled, isolated DC voltage |
| Rated voltage V_{out} DC | 48 V |
| • output voltage at output 1 at DC rated value | 48 V |
| Total tolerance, static \pm | 3 % |
| Static mains compensation, approx. | 0.1 % |
| Static load balancing, approx. | 0.2 % |
| Residual ripple peak-peak, max. | 100 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 480 mV |
| Adjustment range | 46 ... 56 V |
| product function output voltage adjustable | Yes |
| Output voltage setting | via potentiometer; max. 960 W |
| Status display | Green LED for 48 V OK |
| Signaling | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 48 V OK |
| On/off behavior | minimal overshoot (< 3 %) |
| Startup delay, max. | 0.1 s |
| voltage increase time of the output voltage maximum | 100 ms |
| Rated current value I_{out} rated | 20 A |
| Current range | 0 ... 20 A |
| • Note | +60 ... +70 °C: Derating 4%/K |

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| supplied active power typical | 960 W |
| short-term overload current | |
| • at short-circuit during operation typical | 60 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 | 24 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. | 58 W |
| power loss [W] during no-load operation maximum | 4 W |
| Closed-loop control | |
| Dynamic mains compensation (V_{in} rated ± 15 %), max. | 1 % |
| Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ typ. | 3 % |
| setting time maximum | 10 ms |
| Protection and monitoring | |
| Output overvoltage protection | < 57.8 V |
| Current limitation, typ. | 22 A |
| property of the output short-circuit proof | Yes |
| Short-circuit protection | Alternatively, constant current characteristic approx. 22 A or latching shutdown |
| enduring short circuit current RMS value | |
| • typical | 26 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 | 1 mA |
| • typical | 0.6 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; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) |
| 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, T4 |
| certificate of suitability NEC Class 2 | No |
| FM approval | - |
| CB approval | Yes |
| certificate of suitability EAC approval | Yes |
| Marine approval | DNV GL |
| EMC | |
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature | |
| • during operation | -25 ... +70 °C |
| — Note | With natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |

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| Humidity class according to EN 60721 | Climate class 3K3, 5 ... 95% no condensation |
| Mechanics | |
| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm ² single-core/finely stranded |
| • Output | +: 2 screw terminals each for 0.5 ... 16 mm ² ; -: 3 screw terminals each for 0.5 ... 16 mm ² |
| • Auxiliary | 13, 14 (alarm signal), 15, 16 (Remote): 1 screw terminal each for 0.05 ... 2.5 mm ² |
| width of the enclosure | 135 mm |
| height of the enclosure | 145 mm |
| depth of the enclosure | 150 mm |
| required spacing | |
| • top | 40 mm |
| • bottom | 40 mm |
| • left | 0 mm |
| • right | 0 mm |
| Weight, approx. | 3.3 kg |
| product feature of the enclosure housing can be lined up | Yes |
| Installation | Snaps onto DIN rail EN 60715 35x15 |
| mechanical accessories | Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20 |
| MTBF at 40 °C | 520 782 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

