



SITOP PSU8200/1AC/DC24V/40A/EX

SITOP PSU8200 EX 24 V/40 A Stabilized power supply input: 120/230 V
AC output: 24 V DC/40 A

Input	
type of the power supply network	1-phase and 2-phase AC
supply voltage at AC	Automatic selection; startup starting from $U_e \geq 90/180$ V
<ul style="list-style-type: none"> initial value 	
supply voltage	
<ul style="list-style-type: none"> 1 at AC rated value 2 at AC rated value 	120 V 230 V
input voltage	
<ul style="list-style-type: none"> 1 at AC 2 at AC 	85 ... 132 V 170 ... 264 V
design of input wide range input	No
operating condition of the mains buffering	at $V_{in} = 230$ 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 $V_{in} = 230$ V
line frequency	
<ul style="list-style-type: none"> 1 rated value 2 rated value 	50 Hz 60 Hz
line frequency	45 ... 65 Hz
input current	
<ul style="list-style-type: none"> at rated input voltage 120 V at rated input voltage 230 V 	15 A 9 A
current limitation of inrush current at 25 °C maximum	50 A
I ² t value maximum	8 A ² ·s
fuse protection type	Yes
<ul style="list-style-type: none"> in the feeder 	Recommended miniature circuit breaker at 1-phase operation: 16 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2421-4BA10 (120 V) or 3RV2411-1JA10 (230 V)
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
<ul style="list-style-type: none"> at output 1 at DC rated value 	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> on slow fluctuation of input voltage on slow fluctuation of ohm loading 	0.1 % 0.1 %
residual ripple	
<ul style="list-style-type: none"> maximum typical 	100 mV 50 mV
voltage peak	

<ul style="list-style-type: none"> • maximum • typical 	240 mV
adjustable output voltage	220 mV
product function output voltage adjustable	24 ... 28 V
type of output voltage setting	Yes
display version for normal operation	via potentiometer; max. 960 W
type of signal at output	Green LED for 24 V OK; LED yellow for overload; LED red for short-circuit or latching shutdown
behavior of the output voltage when switching on	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
response delay maximum	Overshoot of Vout approx. 3 %
voltage increase time of the output voltage	1.5 s
<ul style="list-style-type: none"> • typical 	30 ms
output current	
<ul style="list-style-type: none"> • rated value • rated range 	40 A
supplied active power typical	0 ... 40 A; +60 ... +70 °C: Derating 3%/K
short-term overload current	960 W
<ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	120 A
duration of overloading capability for excess current	120 A
<ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	25 ms
constant overload current	25 ms
<ul style="list-style-type: none"> • on short-circuiting during the start-up typical 	60 A
product feature	
<ul style="list-style-type: none"> • bridging of equipment 	No
Efficiency	
efficiency in percent	92 %
power loss [W]	
<ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical • during no-load operation maximum 	82 W
	6.8 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1.9 %
setting time	
<ul style="list-style-type: none"> • load step 50 to 100% typical • load step 100 to 50% typical 	2 ms
	2 ms
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3.8 %
setting time	
<ul style="list-style-type: none"> • load step 10 to 90% typical • load step 90 to 10% typical • maximum 	1 ms
	1 ms
	1 ms
Protection and monitoring	
design of the overvoltage protection	< 32 V
<ul style="list-style-type: none"> • typical 	41 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 41 A or latching shutdown
enduring short circuit current RMS value	
<ul style="list-style-type: none"> • typical 	41 A
overcurrent overload capability in normal operation	250% Iout rated up to 25 ms, 150% Iout rated up to 5 s/min
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown" or "short-circuit"
Safety	
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"> • maximum • typical 	0.1 mA
	0.1 mA

protection class IP	IP20
Approvals	
certificate of suitability	
• CE marking	Yes
• UL approval	No
• CSA approval	No
• cCSAus, Class 1, Division 2	No
• ATEX	Yes
certificate of suitability	
• IECEx	Yes
• NEC Class 2	No
• ULhazloc approval	No
• FM registration	No
certificate of suitability shipbuilding approval	No
shipbuilding approval	available soon
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• DNV GL	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
EMC	
standard	
• for emitted interference	EN 55022 Class B
• for mains harmonics limitation	-
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	-25 ... +70 °C; with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
• at input	L, N, PE: 1 screw terminal each for 0.2 ... 4 mm ² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.5 ... 10 mm ²
• for auxiliary contacts	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm ²
width of the enclosure	145 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
net weight	3.1 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Buffer module, redundancy module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	838 156 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

