



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
supply voltage	120 V/230 V
input voltage 1 at AC	85 ... 132 V
input voltage 2 at AC	170 ... 264 V
wide range input	No
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	50/60 Hz
line frequency	45 ... 65 Hz
input current	
• at rated input voltage 120 V	15 A
• at rated input voltage 230 V	9 A
current limitation of inrush current at 25 °C maximum	50 A
I <sup>2</sup> t value maximum	8 A <sup>2</sup> ·s
fuse protection type	Yes
fuse protection type 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	
• at output 1 at DC rated value	24 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	24 ... 28 V; max. 960 W
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	0.1 %
residual ripple	
• maximum	100 mV
• typical	50 mV
voltage peak	
• maximum	240 mV
• typical	220 mV
display version for normal operation	Green LED for 24 V OK; LED yellow for overload; LED red for short-circuit or latching shutdown

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 <ul style="list-style-type: none"> <li>• typical</li> </ul>	30 ms
output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>	40 A 0 ... 40 A; +60 ... +70 °C: Derating 3%/K
supplied active power typical	960 W
short-term overload current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up typical</li> <li>• at short-circuit during operation typical</li> </ul>	120 A 120 A
duration of overloading capability for excess current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up</li> <li>• at short-circuit during operation</li> </ul>	25 ms 25 ms
constant overload current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up typical</li> </ul>	60 A
bridging of equipment	No
<b>efficiency</b>	
efficiency in percent	92 %
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>	82 W 6.8 W
<b>closed-loop control</b>	
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"> <li>• load step 50 to 100% typical</li> <li>• load step 100 to 50% typical</li> </ul>	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"> <li>• load step 10 to 90% typical</li> <li>• load step 90 to 10% typical</li> <li>• maximum</li> </ul>	1 ms 1 ms 1 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	< 32 V
property of the output short-circuit proof	Yes
design of short-circuit protection <ul style="list-style-type: none"> <li>• typical</li> </ul>	Alternatively, constant current characteristic approx. 41 A or latching shutdown 41 A
overcurrent overload capability <ul style="list-style-type: none"> <li>• in normal operation</li> </ul>	250% Iout rated up to 25 ms, 150% Iout rated up to 5 s/min
enduring short circuit current RMS value <ul style="list-style-type: none"> <li>• typical</li> </ul>	41 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown" or "short-circuit"
<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>	0.1 mA 0.1 mA
protection class IP	IP20
standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B - EN 61000-6-2
<b>standards, specifications, approvals</b>	

certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• UKCA marking</li> <li>• Regulatory Compliance Mark (RCM)</li> <li>• NEC Class 2</li> </ul>	<p>Yes</p> <p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259</p> <p>Yes; CSA C22.2 No. 62368-1</p> <p>Yes</p> <p>Yes</p> <p>No</p>
type of certification	
<ul style="list-style-type: none"> <li>• BIS</li> <li>• CB-certificate</li> </ul>	<p>Yes; R-41183539</p> <p>Yes</p>
MTBF at 40 °C	838 156 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> <li>• ATEX</li> <li>• ULhazloc approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• FM registration</li> </ul>	<p>Yes; IECEx Ex ec nC IIC T3 Gc</p> <p>Yes; ATEX (EX) II 3G Ex ec nC IIC T3 Gc</p> <p>Yes</p> <p>Yes</p> <p>No</p>
<b>standards, specifications, approvals marine classification</b>	
shipbuilding approval	No
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>• Det Norske Veritas (DNV)</li> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	<p>No</p> <p>No</p> <p>No; in preparation</p> <p>No</p>
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
<ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	<p>2 616.1 kg</p> <p>48.8 kg</p> <p>2 565.8 kg</p> <p>0.7 kg</p>
<b>ambient 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</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>connection method</b>	
type of electrical connection	screw terminal
<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 ... 4 mm<sup>2</sup> single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 10 mm<sup>2</sup></p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm<sup>2</sup></p>
<b>mechanical data</b>	
width × height × depth of the enclosure	145 × 145 × 150 mm
installation width × mounting height	150 mm × 225 mm
required spacing	
<ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>40 mm</p> <p>40 mm</p> <p>0 mm</p> <p>0 mm</p>
fastening method	Snaps onto DIN rail EN 60715 35x15
<ul style="list-style-type: none"> <li>• standard rail mounting</li> <li>• S7 rail mounting</li> <li>• wall mounting</li> </ul>	<p>Yes</p> <p>No</p> <p>No</p>
housing can be lined up	Yes
net weight	3.1 kg
<b>accessories</b>	
electrical accessories	Buffer module, redundancy module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20

**further information internet links**

internet link

- to website: Industry Mall
- to website: Industrial communication
- to website: CAx-Download-Manager
- to website: Industry Online Support

- <https://mall.industry.siemens.com>
- <https://siemens.com/industrial-communication>
- <https://siemens.com/cax>
- <https://support.industry.siemens.com>

**additional information**

other information

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

**security information**

security information

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**Classifications**

	Version	Classification
eClass	14	27-04-07-01
eClass	12	27-04-07-01
eClass	9.1	27-04-07-01
eClass	9	27-04-07-01
eClass	8	27-04-90-02
eClass	7.1	27-04-90-02
eClass	6	27-04-90-02
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

**Approvals Certificates**

General Product Approval

[Manufacturer Declaration](#)



[BIS CRS](#)

For use in hazardous locations



[CCC-Ex](#)



Marine / Shipping

**Environment**



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