



SITOP PSU8200/1AC/24VDC/40A/EX

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

Technical Product Detail Page

<https://i.siemens.com/1P6EP3337-8SC00-0AY0>

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
<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>	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>• UKCA marking</li> <li>• Regulatory Compliance Mark (RCM)</li> <li>• NEC Class 2</li> </ul>	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes Yes No
type of certification	
<ul style="list-style-type: none"> <li>• BIS</li> <li>• CB-certificate</li> </ul>	Yes; R-41183539 Yes
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>• UKEX</li> <li>• CCC for hazardous zone according to GB standard</li> <li>• FM registration</li> </ul>	Yes; IECEx Ex ec nC IIC T3 Gc Yes; ATEX (EX) II 3G Ex ec nC IIC T3 Gc Yes Yes Yes No
<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>	No No Yes No
<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>	2 616.1 kg 48.8 kg 2 565.8 kg 0.7 kg
<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>	-25 ... +70 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
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>	L, N, PE: 1 screw terminal each for 0.2 ... 4 mm <sup>2</sup> single-core/finely stranded +, -: 2 screw terminals each for 0.5 ... 10 mm <sup>2</sup> 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm <sup>2</sup>
<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>	40 mm 40 mm 0 mm 0 mm
fastening method	Snaps onto DIN rail EN 60715 35x15
<ul style="list-style-type: none"> <li>• DIN-rail mounting</li> <li>• S7 rail mounting</li> </ul>	Yes No

• wall mounting	No
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
<b>further information internet links</b>	
internet link	
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: power supplies	<a href="https://siemens.com/sitop">https://siemens.com/sitop</a>
• to website: CAX-Download-Manager	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>additional information</b>	
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)
<b>security information</b>	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)

**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	10	EC002540
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 Maritime application



[CCC-Ex](#)



Environment



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