



SITOP PSU4200/1AC/24VDC/20A

SITOP PSU4200 1AC 24 V/20 A stabilized power supply PSU4200 input: 120/240 V AC output: 24 V DC/20 A

input	
type of the power supply network	1-phase AC
supply voltage at AC	
• minimum rated value	120 V
• maximum rated value	240 V
• initial value	85 V
• full-scale value	264 V
wide range input	Yes
buffering time for rated value of the output current in the event of power failure minimum	15 ms
operating condition of the mains buffering	at $V_{in} = 120/240$ V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 100 V	5.4 A
• at rated input voltage 120 V	4.5 A
• at rated input voltage 200 V	2.6 A
• at rated input voltage 230 V	2.4 A
• at rated input voltage 240 V	2.3 A
current limitation of inrush current at 25 °C maximum	20 A
duration of inrush current limiting at 25 °C	
• typical	40 ms
I <sub>2t</sub> value maximum	3 A <sup>2</sup> ·s
fuse protection type	6.3 A
fuse protection type in the feeder	Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C
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
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	1 %
residual ripple	
• maximum	150 mV
• typical	35 mV

voltage peak		
• maximum	240 mV	
• typical	67 mV	
display version for normal operation	Green LED for 24 V OK	
type of signal at output	Signal contact (signal load capacity: 10 mA) for DC OK	
behavior of the output voltage when switching on	No overshoot of Vout (soft start)	
response delay maximum	1.5 s	
voltage increase time of the output voltage		
• typical	33 ms	
• maximum	500 ms	
output current		
• rated value	20 A	
• rated range	0 ... 20 A; +60 ... +70 °C: Derating 3%/K	
supplied active power typical	480 W	
bridging of equipment	Yes	
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	37 W	
• during no-load operation maximum	3 W	
<b>closed-loop control</b>		
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.2 %	
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	2 %	
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %	
setting time		
• load step 10 to 90% typical	1 ms	
• load step 90 to 10% typical	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	Shutdown and periodic restart attempts	
• typical	23.1 A	
enduring short circuit current RMS value		
• typical	6 A	
<b>safety</b>		
galvanic isolation between input and output	Yes	
galvanic isolation	ES1 output voltage Vout according to EN 62368-1 (Safety extra low output voltage Vout according to EN 60950-1)	
operating resource protection class	Class I	
leakage current		
• maximum	0.7 mA	
• typical	0.5 mA	
protection class IP	IP20	
<b>EMC</b>		
standard		
• for emitted interference	EN 55032 Class A	
• for mains harmonics limitation	EN 61000-3-2	
• for interference immunity	EN 61000-6-2	
<b>standards, specifications, approvals</b>		
certificate of suitability		
• CE marking	Yes	
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (UL 62368-1, CSA C22.2 No. 62368-1-19)	
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (UL 62368-1, CSA C22.2 No. 62368-1-19)	
• UKCA marking	Yes	

• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
• NEC Class 2	No
type of certification	
• BIS	Yes; R-41282421
• CB-certificate	Yes
MTBF at 40 °C	1 065 000 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• cCSAus, Class 1, Division 2	No
• FM registration	No
<b>standards, specifications, approvals marine classification</b>	
shipbuilding approval	No
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Det Norske Veritas (DNV)	No
• Lloyds Register of Shipping (LRS)	No
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	1 078.9 kg
• during manufacturing	47.4 kg
• during operation	1 029.9 kg
• after end of life	0.72 kg
<b>ambient conditions</b>	
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
<b>connection method</b>	
type of electrical connection	push-in terminals
• at input	L, N, PE: push-in for 0.5 ... 4 mm <sup>2</sup>
• at output	+, -: push-in for 0.5 ... 6 mm <sup>2</sup>
• for signaling contact	13, 14: push-in for 0.2 ... 1.5 mm <sup>2</sup>
<b>mechanical data</b>	
width x height x depth of the enclosure	70 x 135 x 125 mm
installation width x mounting height	70 mm x 225 mm
required spacing	
• top	45 mm
• bottom	45 mm
• left	0 mm
• right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
• DIN-rail mounting	Yes
• S7 rail mounting	No
• wall mounting	No
housing can be lined up	Yes
net weight	0.93 kg
<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>