6EP3336-3SB00-0AX0

# **Data sheet**



# 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

type of the power supply network         1-phase AC           supply voltage at AC         120 V           • minimum 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 Vin = 120/240 V           line frequency         50/60 Hz           line frequency         47 63 Hz           • at rated input voltage 100 V         5.4 A           • at rated input voltage 200 V         2.6 A           • at rated input voltage 230 V         2.6 A           • at rated input voltage 230 V         2.3 A           • uursent limitation of inrush current at 25 °C maximum         20 A           duration of inrush current at 25 °C maximum         20 A           ± typical         40 ms           12t value maximum         3.4°s           fuse protection type in the feeder         Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A reacteristic C to from 16 A reacterist	nput		
	type of the power supply network	1-phase AC	
• maximum rated value         240 V           • full-scale value         85 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 Vin = 120/240 V           line frequency         50/60 Hz           line frequency         47 m 63 Hz           input current         5.4 A           • at rated input voltage 100 V         4.5 A           • at rated input voltage 220 V         4.5 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 imiting at 25 °C         9 to A           • typical         4m           12t value maximum         3 A²s           fuse protection type in the feeder         6.3 A           Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic	supply voltage at AC		
• initial value • full-scale va	minimum rated value	120 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 Vin = 120/240 V           line frequency         50/60 Hz           input current         4 ms. 63 Hz           • at rated input voitage 100 V         4.5 A           • at rated input voitage 200 V         2.6 A           • at rated input voitage 230 V         2.4 A           • at rated input voitage 240 V         2.3 A           current limitation of inrush current at 25 °C maximum         20 A           duration of inrush current at 25 °C maximum         3A*s           fuse protection type         6.3 A           fuse protection type in the feeder         40 ms           at put typical         40 ms           support to type in the feeder         Controlled, isolated DC voitage           autput voitage acrive at output         Controlled, isolated DC voitage           output voitage         4 V           output voitage adjustable         Yes; via potentiometer           adjustable output voitage         24 V           output voitage adjustable         3%           on slow fluctuation of input voitage         3%	maximum rated value	240 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 Vin = 120/240 V           line frequency         50/60 Hz           line frequency         50/60 Hz           line frequency         4 ms           • at rated input voitage 100 V         5.4 A           • at rated input voitage 210 V         4.5 A           • at rated input voitage 230 V         2.6 A           • at rated input voitage 240 V         2.3 A           current limitation of inrush current at 25 °C maximum         20 A           duration of inrush current limiting at 25 °C         40 ms           12 value maximum         3 A²-s           fuse protection type         6.3 A           fuse protection type in the feeder         6.3 A           Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C           output voltage at DC rated value         24 V           output voltage adjustable         44 28 V           at output 1 at DC rated value         24 28 V           output voltage adjustable         24 28 V           at output 1 at DC rated value         3 %           on slow fluctuation of input voltage	• initial value	85 V	
buffering time for rated value of the output current in the event of power failure minimum operating condition of the mains buffering line frequency   47 63 Hz   50/60 Hz   74 63 Hz   75 6	• full-scale value	264 V	
power failure minimum operating condition of the mains buffering iner frequency line frequency l	wide range input	Yes	
line frequency 50/60 Hz line frequency 47 63 Hz input current • at rated input voltage 100 V • at rated input voltage 220 V • at rated input voltage 230 V • at rated input voltage 230 V • at rated input voltage 230 V • at rated input voltage 240 V • at rated input voltage 240 V • at rated input voltage 250 V • at rated input voltage 40 V • at ra		15 ms	
line frequency 47 63 Hz  input current  • at rated input voltage 100 V 5.4 A • at rated input voltage 220 V 4.5 A • at rated input voltage 220 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 6.3 A  fuse protection type 6.3 A  fuse protection type 6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A character	operating condition of the mains buffering	at Vin = 120/240 V	
input current  • at rated input voltage 100 V • at rated input voltage 220 V • at rated input voltage 220 V • at rated input voltage 230 V • at rated input voltage 230 V • at rated input voltage 240 V 2.5 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  12t value maximum 6.3 A  fuse protection type 6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  utput  voltage curve at output  output voltage at DC rated value  • at output 1 at DC rated value  24 V  output voltage • at output 1 at DC rated value  24 V  output voltage adjustable adjustable output voltage  • at output voltage • at output voltage  • at output voltage • on slow fluctuation of input voltage • on slow fluctuation of ohm loading  1 %  residual ripple • maximum  150 mV	line frequency	50/60 Hz	
at rated input voltage 100 V at rated input voltage 120 V at rated input voltage 200 V at rated input voltage 230 V at rated input voltage 230 V at rated input voltage 240 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 at typical 40 ms  12t value maximum 3 A A*s  fuse protection type 6.3 A Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  at output voltage at DC rated value  output voltage at DC rated value  at output 1 at DC rated value  24 V  output voltage adjustable 4 ves; via potentiometer  adjustable output voltage adjustable output voltage 24 28 V  relative overall tolerance of the voltage  on slow fluctuation of input voltage on slow fluctuation of ohm loading 1 %  residual ripple maximum 150 mV	line frequency	47 63 Hz	
at rated input voltage 120 V at rated input voltage 200 V at rated input voltage 230 V at rated input voltage 230 V at rated input voltage 240 V 2.3 A  current limitation of inrush current at 25 °C maximum duration of inrush current at 25 °C maximum duration of inrush current limiting at 25 °C typical  40 ms  12t value maximum 3 A²-s  fuse protection type 6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteris	input current		
at rated input voltage 200 V at rated input voltage 230 V 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 a typical  12t 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  utput  voltage curve at output voltage at DC rated value 24 V  output voltage at output 1 at DC rated value 24 V  output voltage adjustable adjustable output voltage at output voltage at output voltage at output 1 output 24 V  output voltage adjustable versit overall tolerance of the voltage 24 28 V  relative overall tolerance of the voltage on slow fluctuation of input voltage on slow fluctuation of ohm loading 1 %  residual ripple maximum 150 mV	<ul> <li>at rated input voltage 100 V</li> </ul>	5.4 A	
at rated input voltage 230 V     at rated input voltage 240 V     2.3 A  current limitation of inrush current at 25 °C maximum     duration of inrush current limiting at 25 °C     • typical     typical     20 A  duration of inrush current limiting at 25 °C     • typical     40 ms  12t value maximum     3 A²-s fuse protection type     6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C      voltage curve at output  voltage curve at output  voltage at DC rated value     output voltage     • at output 1 at DC rated value  output voltage adjustable     ves; via potentiometer  adjustable output voltage     velative overall tolerance of the voltage  relative control precision of the output voltage     • on slow fluctuation of input voltage     • on slow fluctuation of ohm loading     residual ripple     • maximum  150 mV	<ul> <li>at rated input voltage 120 V</li> </ul>	4.5 A	
e at rated input voltage 240 V  current limitation of inrush current at 25 °C maximum  duration of inrush current limiting at 25 °C  • typical  40 ms  12t value maximum  3 A²·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  utput  voltage curve at output  voltage at DC rated value  output voltage at DC rated value  • at output 1 at DC rated value  output voltage adjustable  • at output voltage  adjustable output voltage  adjustable output voltage  relative control precision of the output voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  150 mV	<ul> <li>at rated input voltage 200 V</li> </ul>	2.6 A	
current limitation of inrush current at 25 °C maximum  duration of inrush current limiting at 25 °C  • typical  40 ms  12t value maximum  3 A²-s  fuse protection type  6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C   utput  voltage curve at output  voltage at DC rated value  • at output 1 at DC rated value  output voltage adjustable  • at output voltage adjustable  adjustable output voltage  elative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  20 A  40 ms  40 ms  40 ms  42 ms  42 meaning the selection type  40 ms  Controlled, isolated DC voltage  24 V  Controlled, isolated DC voltage  24 V  24 V  24 V  24 V  output voltage  24 V  output voltage adjustable  Yes; via potentiometer  3 %  relative control precision of the output voltage  • on slow fluctuation of input voltage  • on slow fluctuation of hm loading  1 %  residual ripple  • maximum  150 mV	<ul> <li>at rated input voltage 230 V</li> </ul>	2.4 A	
duration of inrush current limiting at 25 °C  • typical  40 ms  12t value maximum  3 A²-s  fuse protection type  6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  utput  voltage curve at output  voltage at DC rated value  • at output 1 at DC rated value  output voltage adjustable  • at output voltage  • at output voltage  relative overall tolerance of the voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  40 ms  40 ms	at rated input voltage 240 V	2.3 A	
typical 40 ms  12t value maximum 3 A²-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  wtput  voltage curve at output Controlled, isolated DC voltage output voltage at DC rated value 24 V  output voltage	current limitation of inrush current at 25 °C maximum	20 A	
I 2t value maximum  fuse protection type  fuse protection type in the feeder  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  To chrolled, isolated DC voltage  24 V  Output voltage at DC rated value  24 V  Output voltage  • at output 1 at DC rated value  Yes; via potentiometer  adjustable output voltage  24 28 V  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of input voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  1 %  residual ripple  • maximum  150 mV	duration of inrush current limiting at 25 °C		
fuse protection type fuse protection type in the feeder  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  routput  voltage curve at output  output voltage at DC rated value  • at output 1 at DC rated value  output voltage adjustable  adjustable output voltage  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  6.3 A  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  Controlled, isolated DC voltage  24 V  4 V  output voltage  24 V  25 V'  150 mV	• typical	40 ms	
fuse protection type in the feeder  Recommended miniature circuit breaker: from 10 A characteristic C to from 16 A characteristic C  voltage curve at output  voltage at DC rated value  output voltage  • at output 1 at DC rated value  24 V  output voltage adjustable  output voltage adjustable  adjustable output voltage  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  Recommended miniature circuit breaker: from 10 A characteristic C to from 16	I2t value maximum	3 A <sup>2</sup> ·s	
A characteristic C  utput  voltage curve at output  output voltage at DC rated value  output voltage  • at output 1 at DC rated value  output voltage adjustable  output voltage adjustable  adjustable output voltage  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  A characteristic C  Controlled, isolated DC voltage  24 V   Controlled, isolated DC voltage  24 V   24 V   24 V   24 V   25 via potentiometer  3 %  7 controlled isolated DC voltage  24 V  0 to voltage  24 ··· 28 V  150 mV	fuse protection type	6.3 A	
voltage curve at output  output voltage at DC rated value  output voltage  • at output 1 at DC rated value  24 V  output voltage adjustable  output voltage adjustable  indicates adjustable output voltage  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  Controlled, isolated DC voltage  24 V  Controlled, isolated DC voltage  24 V   24 V   25 V  26 V  27 Signature  28 V  28 V  29 Signature  20 Signature	fuse protection type in the feeder		
output voltage at DC rated value 24 V  output voltage	output		
output voltage  • at output 1 at DC rated value  24 V  output voltage adjustable  adjustable output voltage  24 28 V  relative overall tolerance of the voltage  relative control precision of the output voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  150 mV	voltage curve at output	Controlled, isolated DC voltage	
<ul> <li>at output 1 at DC rated value</li> <li>24 V</li> <li>output voltage adjustable</li> <li>adjustable output voltage</li> <li>24 28 V</li> <li>relative overall tolerance of the voltage</li> <li>a on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> <li>residual ripple</li> <li>maximum</li> <li>150 mV</li> </ul>	output voltage at DC rated value	24 V	
output voltage adjustable  adjustable output voltage  24 28 V  relative overall tolerance of the voltage  • on slow fluctuation of input voltage  • on slow fluctuation of ohm loading  residual ripple  • maximum  Yes; via potentiometer  24 28 V  3 %  0 .1 %  0 .1 %  1 %  residual ripple  • maximum  150 mV	output voltage		
adjustable output voltage  24 28 V  relative overall tolerance of the voltage  e on slow fluctuation of input voltage  on slow fluctuation of ohm loading  1 %  residual ripple e maximum  150 mV	at output 1 at DC rated value	24 V	
relative overall tolerance of the voltage relative control precision of the output voltage on slow fluctuation of input voltage on slow fluctuation of ohm loading 1 %  residual ripple maximum 150 mV	output voltage adjustable	Yes; via potentiometer	
relative control precision of the output voltage  on slow fluctuation of input voltage on slow fluctuation of ohm loading 1 %  residual ripple maximum 150 mV	adjustable output voltage	24 28 V	
<ul> <li>on slow fluctuation of input voltage</li> <li>on slow fluctuation of ohm loading</li> <li>residual ripple</li> <li>maximum</li> <li>150 mV</li> </ul>	relative overall tolerance of the voltage	3 %	
on slow fluctuation of ohm loading  residual ripple     maximum  150 mV	relative control precision of the output voltage		
residual ripple  • maximum  150 mV	<ul> <li>on slow fluctuation of input voltage</li> </ul>	0.1 %	
• maximum 150 mV	on slow fluctuation of ohm loading	1 %	
	residual ripple		
• typical 35 mV	• 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	00
• typical .	33 ms
• maximum	500 ms
output current	20. A
• rated range	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
efficiency	
efficiency in percent	93 %
power loss [W]	27.14
at rated output voltage for rated value of the output current typical	37 W
during no-load operation maximum	3 W
closed-loop control	
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
protection and monitoring	.00 V
design of the overvoltage protection	< 32 V
property of the output short-circuit proof design of short-circuit protection	Yes Shutdown and periodic restart attempts
• typical	23.1 A
enduring short circuit current RMS value	20.174
• typical	6 A
safety	
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
EMC	
standard	
for emitted interference	EN 55032 Class A
for mains harmonics limitation	EN 61000-3-2
for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	Voe
CE marking     Ul approval	Yes Voca dillus Listed (III, E09, CSA, C22, 2 No. 107, 1). File E107250; aCSA, (a. (III,
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	
standards, specifications, approvals hazardous environments		
certificate of suitability		
• IECEx	No	
• ATEX	No	
ULhazloc approval	No	
<ul> <li>cCSAus, Class 1, Division 2</li> </ul>	No	
FM registration	No	
standards, specifications, approvals marine classification		
shipbuilding approval	No	
Marine classification association		
<ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No	
<ul> <li>French marine classification society (BV)</li> </ul>	No	
<ul> <li>Det Norske Veritas (DNV)</li> </ul>	No	
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	No	
standards, specifications, approvals Environmental Product Dec	claration	
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	
ambient conditions		
ambient temperature		
during operation	-25 +70; with natural convection	
during transport	-40 +85	
during storage	-40 +85	
environmental category according to IEC 60721	Climate class 3K3, 5 95% no condensation	
connection method	·	
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>	
mechanical data	10, 14. pash iii 10i 0.2 1.0 iiiiii	
width × height × depth of the enclosure	70 × 135 × 125 mm	
installation width × mounting height	70 × 135 × 125 mm	
	7.7 Hilli ** 22.7 Hilli	
required spacing	45 mm	
top     bottom	45 mm	
left	0 mm	
● right	0 mm	
fastening method		
DIN-rail mounting	Snaps onto DIN rail EN 60715 35x7.5/15 Yes	
S7 rail mounting     wall mounting	No No	
wall mounting	No Yes	
housing can be lined up		
net weight	0.93 kg	
further information internet links		
internet link		
internet link • to website: Industry Mall	https://mall.industry.siemens.com	
internet link  • to website: Industry Mall  • to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud	
internet link	https://www.siemens.com/tstcloud https://siemens.com/sitop	
internet link  • to website: Industry Mall  • to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud	

# other information

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

### security information

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 www.siemens.com/cybersecurity-industry. 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 https://www.siemens.com/cert. (V4.7)

	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** 

**Environment** 



Manufacturer Declaration





**BIS CRS** 



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11/25/2024

