



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	100 V
• maximum rated value	240 V
• initial value	85 V; Automatic range selection
• full-scale value	264 V
design of input wide range input	Yes
operating condition of the mains buffering	at $V_{in} = 120/240\text{ V}$
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 $V_{in} = 120/240\text{ V}$
line frequency	
• 1 rated value	50 Hz
• 2 rated value	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 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 ² t value maximum	3 A ² ·s
fuse protection type	10 A
• 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
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.2 %
• on slow fluctuation of ohm loading	0.3 %
residual ripple	
• maximum	150 mV
• typical	35 mV
voltage peak	

<ul style="list-style-type: none"> • maximum 	240 mV
<ul style="list-style-type: none"> • typical 	67 mV
adjustable output voltage	24 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
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	
<ul style="list-style-type: none"> • typical 	33 ms
<ul style="list-style-type: none"> • maximum 	500 ms
output current	
<ul style="list-style-type: none"> • rated value 	20 A
<ul style="list-style-type: none"> • rated range 	0 ... 20 A; +60 ... +70 °C: Derating 2.5%/K
supplied active power typical	480 W
product feature	
<ul style="list-style-type: none"> • bridging of equipment 	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	93 %
power loss [W]	
<ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	39 W
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • load step 10 to 90% typical 	1 ms
<ul style="list-style-type: none"> • load step 90 to 10% typical 	1 ms
Protection and monitoring	
design of the overvoltage protection	< 32 V
<ul style="list-style-type: none"> • typical 	23.1 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Shutdown and periodic restart attempts
enduring short circuit current RMS value	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • maximum 	0.7 mA
<ul style="list-style-type: none"> • typical 	0.5 mA
protection class IP	IP20
Approvals	
certificate of suitability	
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • UL approval 	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 60950-1, CSA C22.2 No. 60950-1), File E151273
<ul style="list-style-type: none"> • CSA approval 	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus (UL 60950-1, CSA C22.2 No. 60950-1), File E151273
<ul style="list-style-type: none"> • NEC Class 2 	No
<ul style="list-style-type: none"> • UKCA marking 	Yes
<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • Regulatory Compliance Mark (RCM) 	Yes

type of certification	
• BIS	No
• CB-certificate	Yes
certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• cCSAus, Class 1, Division 2	No
• FM registration	No
certificate of suitability shipbuilding approval	No
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Lloyds Register of Shipping (LRS)	No
EMC	
standard	
• for emitted interference	EN 55032
• for mains harmonics limitation	EN 61000-3-2
• 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	push-in terminals
• at input	L, N, PE: push-in for 0.5 ... 4 mm ²
• at output	+, -: push-in for 0.5 ... 6 mm ²
• for signaling contact	13, 14: push-in for 0.2 ... 1.5 mm ²
width of the enclosure	70 mm
height of the enclosure	135 mm
depth of the enclosure	125 mm
required spacing	
• top	45 mm
• bottom	45 mm
• left	0 mm
• right	0 mm
net weight	0.93 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	1 068 034 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

