



SITOP PSU4200/3AC/24VDC/20A

SITOP PSU4200 3AC 24 V/20 A stabilized power supply PSU4200 input: 400/500 V AC output: 24 V DC/20 A

Input	
type of the power supply network	3-phase AC
supply voltage at AC	
• minimum rated value	400 V
• maximum rated value	500 V
• initial value	320 V
• full-scale value	550 V
design of input wide range input	Yes
operating condition of the mains buffering	at $V_{in} = 400/500$ V
buffering time for rated value of the output current in the event of power failure minimum	5 ms
operating condition of the mains buffering	at $V_{in} = 400/500$ V
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 400 V	1.4 A
• at rated input voltage 500 V	1.2 A
current limitation of inrush current at 25 °C maximum	36 A
duration of inrush current limiting at 25 °C	
• typical	20 ms
I <sup>2</sup> t value maximum	0.9 A <sup>2</sup> ·s
fuse protection type	
• in the feeder	three-poled coupled circuit breaker from 6 A characteristic C to 16 A characteristic C or circuit breaker 3RV2011-1EA10 (setting 6 A) or 3RV2711-1ED10 (UL 489)
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	25 mV
voltage peak	
• maximum	240 mV

• typical	10 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: 5 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	230 ms
• maximum	500 ms
output current	
• rated value	20 A
• rated range	0 ... 20 A; +60 ... +70 °C: Derating 1%/K
supplied active power typical	480 W
product feature	
• bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2

### Efficiency

efficiency in percent	91 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	48 W
• during no-load operation maximum	3.5 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	0.5 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	1 %
setting time	
• load step 10 to 90% typical	1 ms
• load step 90 to 10% typical	1 ms

### Protection and monitoring

design of the overvoltage protection	< 32 V
• typical	23.4 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	
• typical	23.5 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	0.8 mA
• typical	0.4 mA
protection class IP	IP20

### Approvals

certificate of suitability	
• CE marking	Yes
• 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
• 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
• NEC Class 2	No
• UKCA marking	Yes
• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
type of certification	

<ul style="list-style-type: none"> <li>• BIS</li> </ul>	No
<ul style="list-style-type: none"> <li>• CB-certificate</li> </ul>	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> </ul>	No
<ul style="list-style-type: none"> <li>• ATEX</li> </ul>	No
<ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>	No
<ul style="list-style-type: none"> <li>• cCSAus, Class 1, Division 2</li> </ul>	No
<ul style="list-style-type: none"> <li>• FM registration</li> </ul>	No
certificate of suitability shipbuilding approval	No
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	No
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>• for emitted interference</li> </ul>	EN 55032
<ul style="list-style-type: none"> <li>• for mains harmonics limitation</li> </ul>	EN 61000-3-2
<ul style="list-style-type: none"> <li>• for interference immunity</li> </ul>	EN 61000-6-2
<b>environmental conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-25 ... +70 °C; with natural convection
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
<b>Mechanics</b>	
type of electrical connection	push-in terminals
<ul style="list-style-type: none"> <li>• at input</li> </ul>	L1, L2, L3, PE: push-in for 0.5 ... 4 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• at output</li> </ul>	+, -: push-in for 0.5 ... 6 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	13, 14: push-in for 0.2 ... 1.5 mm <sup>2</sup>
width of the enclosure	95 mm
height of the enclosure	135 mm
depth of the enclosure	150 mm
required spacing	
<ul style="list-style-type: none"> <li>• top</li> </ul>	45 mm
<ul style="list-style-type: none"> <li>• bottom</li> </ul>	45 mm
<ul style="list-style-type: none"> <li>• left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>• right</li> </ul>	0 mm
net weight	1.66 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	817 921 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

