



SITOP PSU300E/3AC/24VDC/5A

SITOP PSU300E 24 V/5 A Stabilized power supply input: 3 AC 400-500 V
output: 24 V DC/5 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 $V_{in} = 400 \text{ V}$
buffering time for rated value of the output current in the event of power failure minimum	50 ms
operating condition of the mains buffering	at $V_{in} = 400 \text{ V}$
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 400 V	0.36 A
• at rated input voltage 500 V	0.29 A
current limitation of inrush current at 25 °C maximum	15 A
I ² t value maximum	0.9 A ² ·s
fuse protection type	none
• in the feeder	Required: 3-pole connected miniature circuit breaker 6 A characteristic B or C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (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	3 %
• on slow fluctuation of ohm loading	3 %
residual ripple	
• maximum	150 mV
• typical	35 mV
voltage peak	
• maximum	240 mV
• typical	70 mV

adjustable output voltage	24 ... 29 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer; max. 120 W
display version for normal operation	Green LED for 24 V OK
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	0.5 s
voltage increase time of the output voltage	
• typical	10 ms
• maximum	100 ms
output current	
• rated value	5 A
• rated range	0 ... 5 A
supplied active power typical	120 W
short-term overload current	
• on short-circuiting during the start-up typical	33 A
• at short-circuit during operation typical	28 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	140 ms
• at short-circuit during operation	135 ms
product feature	
• bridging of equipment	No
Efficiency	
efficiency in percent	90 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	13 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	3 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	5 %
setting time	
• load step 50 to 100% typical	1 ms
• load step 100 to 50% typical	1 ms
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
• maximum	30 ms
Protection and monitoring	
design of the overvoltage protection	Yes, according to EN 60950-1
response value current limitation typical	11 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
• maximum	7.5 A
Safety	
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
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
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
• cCSAus, Class 1, Division 2	No
• ATEX	No

certificate of suitability	
• IECEx	No
• NEC Class 2	No
• ULhazloc approval	No
• FM registration	No
type of certification CB-certificate	No
certificate of suitability	
• EAC approval	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• DNV GL	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
EMC	
standard	
• for emitted interference	EN 55022 Class A
• for mains harmonics limitation	EN 61000-3-2
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	0 ... 60 °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	screw-type terminals
• at input	L1, L2, L3, PE: Removable screw terminal for 0.5 ... 2.5 mm² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
• for auxiliary contacts	13, 14 (alarm signal): 1 screw terminal each for 0.5 ... 2.5 mm²
product function	
• removable terminal at input	Yes
• removable terminal at output	Yes
width of the enclosure	42 mm
height of the enclosure	125 mm
depth of the enclosure	125 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
net weight	0.6 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	2 389 441 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

