



SITOP PSU300S/3AC/24VDC/40A

SITOP PSU300S 40 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 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	340 V
• full-scale value	550 V
wide range input	Yes
buffering time for rated value of the output current in the event of power failure minimum	6 ms
operating condition of the mains buffering	at $V_{in} = 400\text{ V}$
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 400 V	2 A
• at rated input voltage 500 V	1.7 A
current limitation of inrush current at 25 °C maximum	60 A
I <sup>2</sup> t value maximum	3.4 A <sup>2</sup> ·s
fuse protection type	none
fuse protection type in the feeder	Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489-listed, DIVQ)
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; max. 960 W
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	1 %
• on slow fluctuation of ohm loading	2 %
residual ripple	
• maximum	150 mV
voltage peak	
• maximum	240 mV
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	No overshoot of $V_{out}$ (soft start)
response delay maximum	1.5 s

voltage increase time of the output voltage	
• typical	15 ms
• maximum	500 ms
output current	
• rated value	40 A
• rated range	0 ... 40 A; 48 A up to +45°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	960 W
short-term overload current	
• on short-circuiting during the start-up typical	65 A
• at short-circuit during operation typical	65 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	100 ms
• at short-circuit during operation	100 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>efficiency</b>	
efficiency in percent	91.5 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	89 W
<b>closed-loop control</b>	
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	1.5 %
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	3 %
setting time	
• load step 10 to 90% typical	1 ms
• load step 90 to 10% typical	1 ms
• maximum	10 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	protection against overvoltage in case of internal fault $V_{out} < 35 \text{ V}$
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
• typical	50 A
overcurrent overload capability	
• in normal operation	overload capability 150 % $I_{out}$ rated up to 5 s/min
enduring short circuit current RMS value	
• maximum	14 A
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage $V_{out}$ acc. to EN 60950-1 and EN 50178, transformer acc. to EN 61558-2-16
operating resource protection class	Class I
protection class IP	IP20
<b>EMC</b>	
standard	
• for emitted interference	EN 55022 Class B
• 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 (CSA C22.2 No. 60950-1, UL 60950-1)
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)

<ul style="list-style-type: none"> <li>• UKCA marking</li> <li>• EAC approval</li> <li>• NEC Class 2</li> </ul>	<p>Yes</p> <p>Yes</p> <p>No</p>
type of certification <ul style="list-style-type: none"> <li>• BIS</li> <li>• CB-certificate</li> </ul>	<p>Yes; R-41183539</p> <p>Yes</p>
MTBF at 40 °C	500 000 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability <ul style="list-style-type: none"> <li>• IECEx</li> <li>• ATEX</li> <li>• ULhazloc approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• FM registration</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
<b>standards, specifications, approvals marine classification</b>	
shipbuilding approval	Yes
Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	<p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p>
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq] <ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	<p>2 847 kg</p> <p>61.2 kg</p> <p>2 783.6 kg</p> <p>0.92 kg</p>
<b>ambient conditions</b>	
ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	<p>-25 ... +70 °C; with natural convection</p> <p>-40 ... +85 °C</p> <p>-40 ... +85 °C</p>
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
<b>connection method</b>	
type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>	<p>screw terminal</p> <p>L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm<sup>2</sup> single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 10 mm<sup>2</sup></p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.05 ... 2.5 mm<sup>2</sup></p>
<b>mechanical data</b>	
width × height × depth of the enclosure	145 × 145 × 150 mm
installation width × mounting height	145 mm × 225 mm
required spacing <ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>40 mm</p> <p>40 mm</p> <p>0 mm</p> <p>0 mm</p>
fastening method <ul style="list-style-type: none"> <li>• standard rail mounting</li> <li>• S7 rail mounting</li> <li>• wall mounting</li> </ul>	<p>Snaps onto DIN rail EN 60715 35x15</p> <p>Yes</p> <p>No</p> <p>No</p>
housing can be lined up	Yes
net weight	3.1 kg
<b>accessories</b>	
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
<b>further information internet links</b>	
internet link <ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<p><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a></p>

- to website: Industrial communication
- to website: CAx-Download-Manager
- to website: Industry Online Support

<https://siemens.com/industrial-communication>  
<https://siemens.com/cax>  
<https://support.industry.siemens.com>

**additional information**

other information

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

**security information**

security information

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**Classifications**

	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**



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



**General Product Approval**

**Marine / Shipping**

**Environment**

[BIS CRS](#)



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