













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^2t value maximum	3.4 A ² 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 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	

<ul style="list-style-type: none"> • typical • maximum 	15 ms 500 ms
output current	
<ul style="list-style-type: none"> • rated value • rated range 	40 A 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	
<ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	65 A 65 A
duration of overloading capability for excess current	
<ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	100 ms 100 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	91.5 %
power loss [W]	
<ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	89 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	1.5 %
setting time	
<ul style="list-style-type: none"> • load step 50 to 100% typical • load step 100 to 50% typical 	1 ms 1 ms
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 • load step 90 to 10% typical • maximum 	1 ms 1 ms 10 ms
protection and monitoring	
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
<ul style="list-style-type: none"> • typical 	50 A
overcurrent overload capability	
<ul style="list-style-type: none"> • in normal operation 	overload capability 150 % I_{out} rated up to 5 s/min
enduring short circuit current RMS value	
<ul style="list-style-type: none"> • maximum 	14 A
safety	
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
standard	
<ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
<ul style="list-style-type: none"> • CE marking • UL approval • CSA approval • EAC approval • NEC Class 2 	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) Yes No

type of certification	
• BIS	Yes; R-41183539
• CB-certificate	Yes
MTBF at 40 °C	500 000 h
standards, specifications, approvals hazardous environments	
certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	No
• cCSAus, Class 1, Division 2	No
• FM registration	No
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	No
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
• total	2 847 kg
• during manufacturing	61.2 kg
• during operation	2 783.6 kg
• after end of life	0.92 kg
ambient 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
connection method	
type of electrical connection	screw terminal
• at input	L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.5 ... 10 mm²
• for auxiliary contacts	13, 14 (alarm signal): 1 screw terminal each for 0.05 ... 2.5 mm²
mechanical data	
width × height × depth of the enclosure	145 × 150
installation width × mounting height	145 mm
required spacing	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x15
• standard rail mounting	Yes
• S7 rail mounting	No
• wall mounting	No
housing can be lined up	Yes
net weight	3.1 kg
accessories	
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
further information internet links	
internet link	
• to web page: selection aid TIA Selection Tool	https://siemens.com/tst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: CAX-Download-Manager	http://www.siemens.com/cax
additional information	

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)	
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			
 CB	 CSA	Manufacturer Declaration	 EG-Konf.
		Declaration of Conformity	
General Product Approval		For use in hazardous locations	
 UL	BIS CRS	 IECEX	 ATEX
		CCC-Ex	 ABS
Marine / Shipping		Environment	
 DNV	 EPD		