



SITOP PSU300S/3AC/24VDC/40A

SITOP PSU300S 40 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 A

Technical Product Detail Page

<https://i.siemens.com/1P6EP1437-2BA20>

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 ² t 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 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 Vout (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
efficiency	
efficiency in percent	91.5 %
power loss [W]	
• 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	
• 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
protection and monitoring	
design of the overvoltage protection	protection against overvoltage in case of internal fault Vout < 35 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 % Iout rated up to 5 s/min
enduring short circuit current RMS value	
• maximum	14 A
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Vout 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
EMC	
standard	
• for emitted interference	EN 55022 Class B
• for mains harmonics limitation	EN 61000-3-2
• for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
• CE marking	Yes

<ul style="list-style-type: none"> • UL approval • UKCA marking • EAC approval • NEC Class 2 	<p>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259</p> <p>Yes</p> <p>Yes</p> <p>No</p>
type of certification <ul style="list-style-type: none"> • BIS • CB-certificate 	<p>Yes; R-41183539</p> <p>Yes</p>
MTBF at 40 °C	500 000 h

standards, specifications, approvals hazardous environments

certificate of suitability <ul style="list-style-type: none"> • IECEx • ATEX • ULhazloc approval • FM registration 	<p>No</p> <p>No</p> <p>No</p> <p>No</p>
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standards, specifications, approvals marine classification

shipbuilding approval	Yes
Marine classification association <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Lloyds Register of Shipping (LRS) 	<p>Yes</p> <p>No</p> <p>Yes</p> <p>No</p>

standards, specifications, approvals Environmental Product Declaration

Environmental Product Declaration	Yes
global warming potential [CO2 eq] <ul style="list-style-type: none"> • total • during manufacturing • during operation • after end of life 	<p>2 847 kg</p> <p>61.2 kg</p> <p>2 783.6 kg</p> <p>0.92 kg</p>

ambient conditions

ambient temperature <ul style="list-style-type: none"> • during operation • during transport • during storage 	<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

connection method

type of electrical connection <ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	<p>screw terminal</p> <p>L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 10 mm²</p> <p>13, 14 (alarm signal): 1 screw terminal each for 0.05 ... 2.5 mm²</p>
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mechanical data

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"> • top • bottom • left • right 	<p>40 mm</p> <p>40 mm</p> <p>0 mm</p> <p>0 mm</p>
fastening method <ul style="list-style-type: none"> • DIN-rail mounting • S7 rail mounting • wall mounting 	<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

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	
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- to website: Industry Mall
- to web page: selection aid TIA Selection Tool
- to web page: power supplies
- to website: CAx-Download-Manager
- to website: Industry Online Support

- <https://mall.industry.siemens.com>
- <https://www.siemens.com/tstcloud>
- <https://siemens.com/sitop>
- <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	10	EC002540
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](#)



[China RoHS](#)

General Product Approval

Maritime application

Environment



[Miscellaneous](#)

[BIS CRS](#)



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