



SITOP PSU3800/3AC/12VDC/20A

SITOP PSU3800 12 V/20 A stabilized power supply input: 400-500 V 3 AC output: 12 V DC/20 A optimized for battery charging

General information	
Technical Product Detail Page	https://i.siemens.com/1P6EP3424-8UB00-0AY0
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	575 V
wide range input	Yes
buffering time for rated value of the output current in the event of power failure minimum	15 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	0.7 A
• at rated input voltage 500 V	0.6 A
current limitation of inrush current at 25 °C maximum	16 A
I ² t value maximum	0.8 A ² ·s
fuse protection type	none
fuse protection type in the feeder	Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic 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	12 V
output voltage	
• at output 1 at DC rated value	12 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	12 ... 14 V; max. 240 W
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	0.2 %
residual ripple	
• maximum	100 mV
voltage peak	
• maximum	200 mV
display version for normal operation	Green LED for 12 V OK

type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 12 V OK
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	2.5 s
voltage increase time of the output voltage • maximum	500 ms
output current • rated value • rated range	20 A 0 ... 20 A; +60 ... +70 °C: Derating 2%/K
supplied active power typical	240 W
constant overload current • on short-circuiting during the start-up typical	22 A
bridging of equipment	Yes; switchable characteristic
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	24 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1 %
setting time • load step 50 to 100% typical • load step 100 to 50% typical	0.2 ms 0.2 ms
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	2 %
setting time • load step 10 to 90% typical • load step 90 to 10% typical • maximum	0.2 ms 0.2 ms 10 ms
protection and monitoring	
design of the overvoltage protection	< 18 V
property of the output short-circuit proof	Yes
design of short-circuit protection • typical	Alternatively, constant current characteristic approx. 22 A or latching shutdown 22 A
enduring short circuit current RMS value • typical	22 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Output voltage: SELV, ES1 (IEC 62368-1), DVC As (IEC 61204-7)
operating resource protection class	Class I
leakage current • maximum • typical	3.5 mA 0.9 mA
protection class IP	IP20
EMC	
standard • 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 • CE marking • UL approval • UKCA marking • EAC approval	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes Yes

• Regulatory Compliance Mark (RCM) • NEC Class 2 • SEMI F47	Yes No Yes
type of certification	
• CB-certificate	Yes
standards, specifications, approvals hazardous environments	
certificate of suitability	
• IECEx • ATEX • ULhazloc approval • FM registration	No No No No
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Lloyds Register of Shipping (LRS)	Yes No Yes No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total • during manufacturing • during operation • after end of life	636.8 kg 28.7 kg 607.6 kg 0.24 kg
ambient conditions	
ambient temperature	
• during operation • during transport • during storage	-25 ... +70 °C; with natural convection -40 ... +85 °C -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 • at output • for auxiliary contacts	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded +, -: 2 screw terminals each for 0.2 ... 4 mm² 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²; 15, 16 (Remote): 1 screw terminal each for 0.14 ... 1.5 mm²
mechanical data	
width × height × depth of the enclosure	70 × 125 × 125 mm
installation width × mounting height	70 mm × 225 mm
required spacing	
• top • bottom • left • right	50 mm 50 mm 0 mm 0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
• DIN-rail mounting • S7 rail mounting • wall mounting	Yes No No
housing can be lined up	Yes
net weight	1.2 kg
accessories	
electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
further information internet links	
internet link	
• to website: Industry Mall • to web page: selection aid TIA Selection Tool	https://mall.industry.siemens.com https://www.siemens.com/tstcloud

- to web page: power supplies
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://siemens.com/sitop>
<https://siemens.com/cax>
<https://support.industry.siemens.com>

identification link

Yes; acc. to IEC 61406-1:2022

additional information

other information

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

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

Environmental Product Declaration

- | | |
|--|----------|
| • global warming potential [CO2 eq] / during manufacturing | 28.7 kg |
| • global warming potential [CO2 eq] / during operation | 607.6 kg |
| • global warming potential [CO2 eq] / after end of life | 0.24 kg |
| • global warming potential [CO2 eq] / total | 636.8 kg |

Environment

General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



General Product Approval

Maritime application

[China RoHS](#)



