



SITOP PSU8200/3AC/48VDC/20A

SITOP PSU8200 48 V/20 A stabilized power supply input: 400-500 V 3 AC output: 48 V DC/20 A

General information	
Technical Product Detail Page	https://l.siemens.com/1P6EP3447-8SB00-0AY0
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	10 ms
operating condition of the mains buffering	at $V_{in} = 400\text{ V}$
line frequency	50/60 Hz
line frequency	45 ... 65 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	13 A
I ² t value maximum	2.24 A ² ·s
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)
output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	48 V
output voltage	
• at output 1 at DC rated value	48 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	46 ... 56 V; max. 960 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	480 mV
display version for normal operation	Green LED for 48 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for 48 V OK

behavior of the output voltage when switching on	minimal overshoot (< 3 %)
response delay maximum	0.1 s
voltage increase time of the output voltage <ul style="list-style-type: none"> • maximum 	100 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	20 A 0 ... 20 A; +60 ... +70 °C: Derating 4%/K
supplied active power typical	960 W
short-term overload current <ul style="list-style-type: none"> • at short-circuit during operation typical 	60 A
duration of overloading capability for excess current <ul style="list-style-type: none"> • at short-circuit during operation 	25 ms
constant overload current <ul style="list-style-type: none"> • on short-circuiting during the start-up typical 	24 A
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	94 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical • during no-load operation maximum 	58 W 4 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	3 %
setting time <ul style="list-style-type: none"> • maximum 	10 ms
protection and monitoring	
design of the overvoltage protection	< 57.8 V
property of the output short-circuit proof	Yes
design of short-circuit protection <ul style="list-style-type: none"> • typical 	Alternatively, constant current characteristic approx. 22 A or latching shutdown 22 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"> • typical 	26 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 <ul style="list-style-type: none"> • maximum • typical 	1 mA 0.6 mA
protection class IP	IP20
EMC	
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 • EAC approval • Regulatory Compliance Mark (RCM) 	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes Yes

<ul style="list-style-type: none"> • NEC Class 2 • SEMI F47 	No Yes
type of certification	
<ul style="list-style-type: none"> • CB-certificate 	Yes
MTBF at 40 °C	520 782 h
standards, specifications, approvals hazardous environments	
certificate of suitability	
<ul style="list-style-type: none"> • IECEx • ATEX • ULhazloc approval • FM registration 	No No No No
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) 	No No Yes No
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 	1 545.5 kg 75.3 kg 1 468.7 kg 0.63 kg
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm ² single-core/finely stranded +: 2 screw terminals each for 0.5 ... 16 mm ² ; -: 3 screw terminals each for 0.5 ... 16 mm ² 13, 14 (alarm signal), 15, 16 (Remote): 1 screw terminal each for 0.05 ... 2.5 mm ²
mechanical data	
width × height × depth of the enclosure	135 × 145 × 150 mm
installation width × mounting height	135 mm × 225 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	40 mm 40 mm 0 mm 0 mm
fastening method	Snaps onto DIN rail EN 60715 35x15
<ul style="list-style-type: none"> • DIN-rail mounting • S7 rail mounting • wall mounting 	Yes No No
housing can be lined up	Yes
net weight	3.3 kg
accessories	
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
further information internet links	
internet link	
<ul style="list-style-type: none"> • 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>

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

Environmental Product Declaration

- | | |
|--|-----------|
| • global warming potential [CO2 eq] / during manufacturing | 75.3 kg |
| • global warming potential [CO2 eq] / during operation | 1468.7 kg |
| • global warming potential [CO2 eq] / after end of life | 0.63 kg |
| • global warming potential [CO2 eq] / total | 1545.5 kg |

Environment

General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



General Product Approval

Maritime application

[China RoHS](#)



