SIEMENS

Data sheet 6EP1457-3BA00

SITOP PSU300M/3AC/48VDC/20A

********** spare part ******** SITOP PSU300M 48 V/20 A stabilized power supply input: 400-500 V 3 AC output: 48 V DC/20 A !!! phased-out product !!! successor: 6EP3447-8SB00-0AY0



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; Starting from Vin > 340 V
• full-scale value	550 V
design of input wide range input	Yes
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 400 V
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 Vin = 400 V
line frequency	
1 rated value	50 Hz
2 rated value	60 Hz
line frequency	47 63 Hz
input current	
 at rated input voltage 400 V 	2.2 A
current limitation of inrush current at 25 °C maximum	70 A
I2t value maximum	2.8 A ² ·s
fuse protection type	none
• 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
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
• typical	10 mV
voltage peak	
• maximum	200 mV
• typical	80 mV

adjustable output voltage	42 56 V
adjustable output voltage	42 56 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer; max. 960 W
display version for normal operation	Green LED for 48 V OK
type of signal at output	via signaling module (6EP1961-3BA10)
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	
• typical	20 ms
output current	
rated value	20 A
rated range	0 20 A
supplied active power typical	960 W
short-term overload current	
 at short-circuit during operation typical 	60 A
duration of overloading capability for excess current	
 at short-circuit during operation 	25 ms
constant overload current	
 on short-circuiting during the start-up typical 	23 A
product feature	
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for	2
increasing the power	
Efficiency	
efficiency in percent	90 %
power loss [W]	_ 00 //
at rated output voltage for rated value of the output current typical	106 W
Protection and monitoring	
	Voc. according to EN 600E0.1
design of the overvoltage protection	Yes, according to EN 60950-1 23 A
response value current limitation typical	
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 23 A or latching shutdown
enduring short circuit current RMS value	
• typical	23 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
Safety	ELD you will overload, LLD real of latering strateown
	V
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
operating resource protection class	Class I
leakage current	
• maximum	3.5 mA
• typical	0.68 mA
protection class IP	IP20
proteotion diage ii	
Approvals	
•	
Approvals	Yes
Approvals certificate of suitability	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950)
Approvals certificate of suitability • CE marking	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259;
Approvals certificate of suitability CE marking UL approval CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950)
Approvals certificate of suitability CE marking UL approval CSA approval cCSAus, Class 1, Division 2	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No
Approvals certificate of suitability CE marking UL approval CSA approval cCSAus, Class 1, Division 2 ATEX	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950)
Approvals certificate of suitability CE marking UL approval CSA approval cCSAus, Class 1, Division 2 ATEX certificate of suitability	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No
Approvals certificate of suitability CE marking UL approval CSA approval cCSAus, Class 1, Division 2 ATEX certificate of suitability IECEx	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No
Approvals certificate of suitability CE marking UL approval CSA approval CCSAus, Class 1, Division 2 ATEX certificate of suitability IECEx NEC Class 2	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No
Approvals certificate of suitability CE marking UL approval CSA approval CCSAus, Class 1, Division 2 ATEX certificate of suitability IECEx NEC Class 2 ULhazloc approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No No
Approvals certificate of suitability CE marking UL approval CSA approval cCSAus, Class 1, Division 2 ATEX certificate of suitability IECEx NEC Class 2 ULhazloc approval FM registration	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No No No No No
Approvals certificate of suitability CE marking UL approval CSA approval CCSAus, Class 1, Division 2 ATEX certificate of suitability IECEx NEC Class 2 ULhazloc approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950, UL 60950) No No No

EAC approval	Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
 American Bureau of Shipping Europe Ltd. (ABS) 	Yes
 French marine classification society (BV) 	No
• DNV GL	Yes
 Lloyds Register of Shipping (LRS) 	No
Nippon Kaiji Kyokai (NK)	No
EMC	
standard	
for emitted interference	EN 55022 Class B
 for mains harmonics limitation 	EN 61000-3-2
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
during operation	0 60 °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
Mechanics	
type of electrical connection	screw-type terminals
• at input	L1, L2, L3, PE: 1 screw terminal each for 0.2 4 mm² single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.33 10 mm ²
for auxiliary contacts	-
width of the enclosure	240 mm
height of the enclosure	125 mm
depth of the enclosure	125 mm
required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
net weight	3.2 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Signaling module
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

