SIEMENS

Data sheet 6EP1437-3BA00

SITOP MODULAR/3AC/24VDC/40A

SITOP modular 40 A Stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 A *Ex approval no longer available*

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 $A^2 \cdot s$
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	24 V
output voltage	
● at output 1 at DC rated value	24 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
voltage peak	
● maximum	200 mV
adjustable output voltage	24 ... 28.8 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 24 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	
● maximum	500 ms
output current	
● rated value	40 A
● rated range	0 ... 40 A; +60 ... +70 °C: Derating 2%/K
supplied active power typical	960 W
short-term overload current	
● at short-circuit during operation typical	120 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	46 A
product feature	
● bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	90 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	106 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	2 %
setting time	
● load step 50 to 100% typical	4 ms
● load step 100 to 50% typical	4 ms
setting time	
● maximum	10 ms
Protection and monitoring	
design of the overvoltage protection	< 35 V
● typical	46 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 46 A or latching shutdown
enduring short circuit current RMS value	
● typical	46 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	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
● maximum	3.5 mA
protection class IP	IP20
Approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
● CSA approval	Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
● cCSAus, Class 1, Division 2	No
● ATEX	No
certificate of suitability	
● IECEx	No
● NEC Class 2	No
● ULhazloc approval	No

● FM registration	No
type of certification CB-certificate	No
certificate of suitability	
● EAC approval	Yes
● Regulatory Compliance Mark (RCM)	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● French marine classification society (BV)	No
● DNV GL	No
● 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 ... 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
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 mm²
● 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	Buffer module, signaling module
MTBF at 40 °C	485 437 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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