



SITOP POWER/1AC/24VDC/5A/FLAT DESIGN

***** spare part ***** SITOP power 5 A, special line stabilized power supply input: 120/230 V AC output: 24 V DC/5 A

Input

type of the power supply network	1-phase AC
supply voltage at AC	Set by means of selector switch on the device
<ul style="list-style-type: none"> initial value 	
supply voltage	
<ul style="list-style-type: none"> 1 at AC rated value 2 at AC rated value 	120 V 230 V
input voltage	
<ul style="list-style-type: none"> 1 at AC 2 at AC 	85 ... 132 V 170 ... 264 V
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
<ul style="list-style-type: none"> 1 rated value 2 rated value 	50 Hz 60 Hz
line frequency	47 ... 63 Hz
input current	
<ul style="list-style-type: none"> at rated input voltage 120 V at rated input voltage 230 V 	2.2 A 1.2 A
current limitation of inrush current at 25 °C maximum	32 A
duration of inrush current limiting at 25 °C	
<ul style="list-style-type: none"> maximum 	3 ms
I2t value maximum	0.8 A ² ·s
fuse protection type	T 3,15 A/250 V (not accessible)
<ul style="list-style-type: none"> in the feeder 	Recommended miniature circuit breaker: from 6 A characteristic C

Output

voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
<ul style="list-style-type: none"> at output 1 at DC rated value 	24 V
relative overall tolerance of the voltage	1 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> on slow fluctuation of input voltage on slow fluctuation of ohm loading 	0.1 % 0.5 %
residual ripple	
<ul style="list-style-type: none"> maximum typical 	150 mV 40 mV
voltage peak	

<ul style="list-style-type: none"> • maximum • typical 	240 mV 100 mV
adjustable output voltage	22 ... 29 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 V OK
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	2 s
voltage increase time of the output voltage	
<ul style="list-style-type: none"> • typical 	40 ms
output current	
<ul style="list-style-type: none"> • rated value • rated range 	5 A 0 ... 5 A
supplied active power typical	120 W
short-term overload current	
<ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	20 A 20 A
duration of overloading capability for excess current	
<ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	500 ms 500 ms
product feature	
<ul style="list-style-type: none"> • bridging of equipment 	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	88 %
power loss [W]	
<ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	17 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	0.5 %
setting time	
<ul style="list-style-type: none"> • load step 50 to 100% typical • load step 100 to 50% typical 	0.1 ms 0.1 ms
Protection and monitoring	
design of the overvoltage protection	Additional control loop, shutdown at approx. 33 V, automatic restart
response value current limitation	5.5 ... 6.5 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
<ul style="list-style-type: none"> • maximum 	5 A
display version for overload and short circuit	-
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	
<ul style="list-style-type: none"> • maximum • typical 	3.5 mA 0.26 mA
protection class IP	IP20
Approvals	
certificate of suitability	
<ul style="list-style-type: none"> • CE marking • UL approval • CSA approval • cCSAus, Class 1, Division 2 • ATEX 	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 No No
certificate of suitability	
<ul style="list-style-type: none"> • IECEx • NEC Class 2 	No No

<ul style="list-style-type: none"> • ULhazloc approval 	No
<ul style="list-style-type: none"> • FM registration 	No
type of certification CB-certificate	No
certificate of suitability	
<ul style="list-style-type: none"> • EAC approval 	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No
<ul style="list-style-type: none"> • French marine classification society (BV) 	No
<ul style="list-style-type: none"> • DNV GL 	No
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No
<ul style="list-style-type: none"> • Nippon Kaiji Kyokai (NK) 	No

EMC

standard	
<ul style="list-style-type: none"> • for emitted interference 	EN 55022 Class B
<ul style="list-style-type: none"> • for mains harmonics limitation 	-
<ul style="list-style-type: none"> • for interference immunity 	EN 61000-6-2

environmental conditions

ambient temperature	
<ul style="list-style-type: none"> • during operation 	0 ... 60 °C; with natural convection
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • at input 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • at output 	L+, M: 3 screw terminals each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • for auxiliary contacts 	-
width of the enclosure	160 mm
height of the enclosure	130 mm
depth of the enclosure	60 mm
required spacing	
<ul style="list-style-type: none"> • top 	50 mm
<ul style="list-style-type: none"> • bottom 	50 mm
<ul style="list-style-type: none"> • left 	0 mm
<ul style="list-style-type: none"> • right 	0 mm
net weight	0.6 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	1 250 000 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

