



SITOP UPS500S/DC/24VDC/15A/2.5KWS

SITOP UPS500S Maintenance free uninterruptible power supply with USB interface Basic device 2.5 kW input: 24 V DC output: 24 V DC/15 A degree of protection IP20 \*Ex approval no longer available\*

Input	
supply voltage at DC rated value	24 V
voltage curve at input	DC
input voltage range	22 ... 29 V DC
adjustable response value voltage for buffer connection preset	22.5 V
adjustable response value voltage for buffer connection	22 ... 25.5 V; Adjustable in 0.5 V increments
input current at rated input voltage 24 V rated value	15.2 A; + approx. 2.3 A with empty energy storage (capacitor)
Mains buffering	
type of energy storage	with capacitors
design of the mains power cut bridging-connection	15 A for 3 s or 10 A for 6 s or 5 A for 15 s or 2 A for 38 s; longer buffering times with expansion modules
energy content of energy storage	2.5 kW.s
charging current	1 A, 2 A
adjustable charging current maximum note	factory setting approx. 1 A
Output	
output voltage	
• in normal operation at DC rated value	24 V
• in buffering mode at DC rated value	24 V
formula for output voltage	$24\text{ V} \pm 3\%$
startup delay time typical	0.6 s
voltage increase time of the output voltage typical	25 ms
output voltage in buffering mode at DC	24 ... 24.7 V
output current	
• rated value	15 A
• in normal operation	0 ... 15 A
• in buffering mode	0 ... 15 A
peak current	25 A
property of the output short-circuit proof	Yes
supplied active power typical	360 W
Efficiency	
efficiency in percent	
• at rated output voltage for rated value of the output current typical	97.5 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	9 W
Protection and monitoring	
product function	
• reverse polarity protection against energy storage unit polarity reversal	Yes
• reverse polarity protection against input voltage	Yes

polarity reversal

## Signaling

display version

- for normal operation
- in buffering mode

Normal operation: LED green (OK), floating changeover contact "OK/Bat" to setting "OK" ("OK" means: Voltage of the supplying power supply unit is greater than cut-in threshold set at the DC UPS module); lack of buffer standby: LED red (ALARM), floating changeover contact "ALARM/BAT" to setting "ALARM"; energy storage > 85%: LED green (BAT > 85%), floating NO contact "BAT > 85" closed; permissible contact current capacity: DC 60 V/1 A or AC 30 V /1 A  
Buffered mode: LED yellow (BAT), floating changeover contact "OK/BAT" to setting "BAT"; Prewarning buffer end after expiry of 80% of the available buffer time: LED red (ALARM), floating changeover contact "ALARM/BAT" to setting "ALARM"; Energy storage > 85%: LED green (BAT > 85%), floating NO contact "BAT > 85" closed

## Interface

product component PC interface  
design of the interface

Yes  
USB

## Safety

galvanic isolation between input and output  
operating resource protection class  
protection class IP

No  
Class III  
IP20

## Approvals

certificate of suitability

- CE marking
- UL approval
- as approval for USA

Yes  
Yes  
cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)

certificate of suitability

- EAC approval
- C-Tick
- shipbuilding approval

Yes  
Yes  
Yes  
ABS, DNV GL

shipbuilding approval

Marine classification association

- American Bureau of Shipping Europe Ltd. (ABS)
- DNV GL

Yes  
Yes

## EMC

standard

- for emitted interference
- for interference immunity

EN 55022 Class B  
EN 61000-6-2

## environmental conditions

ambient temperature

- during operation
- during transport
- during storage

0 ... 60 °C; with natural convection  
-40 ... +70 °C  
-40 ... +70 °C

environmental category according to IEC 60721

Climate class 3K3, 5 ... 95% no condensation

## Mechanics

type of electrical connection

- at input
- at output
- for rechargeable battery module
- for control circuit and status message

screw-type terminals  
24 V DC: 2 screw terminals for 1 ... 4 mm<sup>2</sup>/17 ... 11 AWG  
24 V DC: 4 screw terminals for 1 ... 4 mm<sup>2</sup>/17 ... 11 AWG  
-  
10 screw terminals for 0.5 ... 2.5 mm<sup>2</sup>/20 ... 13 AWG

width of the enclosure

120 mm

height of the enclosure

125 mm

depth of the enclosure

125 mm

required spacing

- top
- bottom
- left
- right

50 mm  
50 mm  
0 mm  
0 mm

net weight

1 kg

product feature of the enclosure housing can be lined up

Yes

fastening method

Snaps onto DIN rail EN 60715 35x7.5/15

electrical accessories

Extension module SITOP UPS501S

MTBF at 40 °C  
reference code according to IEC 81346-2  
other information

638 570 h  
RB  
Specifications at rated input voltage and ambient temperature +25 °C  
(unless otherwise specified)

