



SITOP UPS500S/DC/DC24V/15A/5KWS/EX

SITOP UPS500S EX maintenance-free uninterruptible power supply with USB interface basic device 5 kW input: 24 V DC output: 24 V DC/15 A degree of protection IP20

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 9 s or 10 A for 15 s or 5 A for 31 s or 2 A for 76 s; longer buffering times with expansion modules
energy content of energy storage	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	Yes

- unit polarity reversal
- reverse polarity protection against input voltage polarity reversal

Yes

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

Yes

design of the interface

USB

Safety

galvanic isolation between input and output

No

operating resource protection class

Class III

protection class IP

IP20

Approvals

certificate of suitability

- CE marking
- UL approval
- CSA approval
- cCSAus, Class 1, Division 2
- ATEX

Yes
No
No
No
Yes

certificate of suitability

- IECEX

Yes

certificate of suitability

- shipbuilding approval

No

shipbuilding approval

available soon

Marine classification association

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

No
No

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

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 mm²/17 ... 11 AWG
24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
-
10 screw terminals for 0.5 ... 2.5 mm²/20 ... 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	459 137 h
reference code according to IEC 81346-2	RB
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

