

SITOP UPS500S BASIC UNIT 2.5 KWS  
 SITOP UPS500S Maintenance free Uninterruptible Power supply  
 With USB interface Basic device 2.5 kW input: 24 V DC output: DC  
 24 V/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 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	24 V
<ul style="list-style-type: none"> <li>in normal operation at DC Rated value</li> </ul>	

<ul style="list-style-type: none"> <li>• in buffering mode at DC Rated value</li> </ul>	24 V
Formula for output voltage	24 V ± 3 %
ON-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	
<ul style="list-style-type: none"> <li>• Rated value</li> </ul>	15 A
<ul style="list-style-type: none"> <li>• in normal operation</li> </ul>	0 ... 15 A
<ul style="list-style-type: none"> <li>• in buffering mode</li> </ul>	0 ... 15 A
Peak current	25 A
Supplied active power typical	360 W

## Efficiency

Efficiency in percent	
<ul style="list-style-type: none"> <li>• at rated output current for rated value of the output current typical</li> </ul>	97.5 %
Power loss [W]	
<ul style="list-style-type: none"> <li>• at rated output current for rated value of the output current typical</li> </ul>	9 W

## Protection and monitoring

Product function	
<ul style="list-style-type: none"> <li>• reverse polarity protection against energy storage unit polarity reversal</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• reverse polarity protection against input voltage polarity reversal</li> </ul>	Yes

## Signaling

Display version	
<ul style="list-style-type: none"> <li>• for normal operation</li> </ul>	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
<ul style="list-style-type: none"> <li>• in buffering mode</li> </ul>	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 entrance and outlet	No
Operating resource protection class	Class III
Certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• as approval for USA</li> <li>• relating to ATEX</li> <li>• C-Tick</li> </ul>	Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)  -  Yes
Shipbuilding approval	ABS, DNV GL
Protection class IP	IP20

EMC	
Standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B  EN 61000-6-2

Operating data	
Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	0 ... 60 °C; with natural convection  -40 ... +70 °C  -40 ... +70 °C
Environmental category acc. to IEC 60721	Climate class 3K3, no condensation

Mechanics	
Type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for battery module</li> <li>• for control circuit and status message</li> </ul>	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 <ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	50 mm 50 mm 0 mm 0 mm
Net weight	1 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Extension module SITOP UPS501S
MTBF at 40 °C	638 570 h

Reference code acc. to DIN EN 81346-2	T
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)