

SITOP UPS500S BASIC UNIT 2.5 KWS
SITOP UPS500S service-free uninterruptible power supply with USB-
interface basic unit 2.5 kW input: 24 V DC output: 24 V/15 A DC
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
• in normal operation at DC Rated value	

• in buffering mode at DC Rated value	24 V
Formula for output voltage	24 V \pm 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	
• Rated value	15 A
• in normal operation	0 ... 15 A
• in buffering mode	0 ... 15 A
Peak current	25 A
Supplied active power typical	360 W

Efficiency

Efficiency in percent	
• at rated output current for rated value of the output current typical	97.5 %
Power loss [W]	
• at rated output current 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 polarity reversal	Yes

Signaling

Display version	
• for normal operation	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
• in buffering mode	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"> • CE marking • as approval for USA • relating to ATEX • C-Tick 	Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 - Yes
Shipbuilding approval	GL, ABS
Protection class IP	IP20

EMC

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

Ambient temperature <ul style="list-style-type: none"> • during operation • during transport • during storage 	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"> • at input • at output • for 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 <ul style="list-style-type: none"> • top • bottom • left • right 	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
Equipment marking acc. to DIN EN 81346-2	T

