



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 unit polarity reversal	Yes
• reverse polarity protection against input voltage polarity	Yes

reversal	
<b>Signaling</b>	
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
<b>Interface</b>	
product component PC interface	Yes
design of the interface	USB
<b>Safety</b>	
galvanic isolation between input and output	No
operating resource protection class	Class III
protection class IP	IP20
<b>Approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>UL approval</li> </ul>	No
<ul style="list-style-type: none"> <li>CSA approval</li> </ul>	No
<ul style="list-style-type: none"> <li>cCSAus, Class 1, Division 2</li> </ul>	No
<ul style="list-style-type: none"> <li>ATEX</li> </ul>	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>IECEX</li> </ul>	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>shipbuilding approval</li> </ul>	No
shipbuilding approval	available soon
Marine classification association	
<ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul style="list-style-type: none"> <li>DNV GL</li> </ul>	No
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>for emitted interference</li> </ul>	EN 55022 Class B
<ul style="list-style-type: none"> <li>for interference immunity</li> </ul>	EN 61000-6-2
<b>environmental conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	0 ... 60 °C; with natural convection
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-40 ... +70 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-40 ... +70 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
<b>Mechanics</b>	
type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> <li>at input</li> </ul>	24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
<ul style="list-style-type: none"> <li>at output</li> </ul>	24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
<ul style="list-style-type: none"> <li>for rechargeable battery module</li> </ul>	-
<ul style="list-style-type: none"> <li>for control circuit and status message</li> </ul>	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"> <li>top</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>bottom</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>right</li> </ul>	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)

