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Data sheet 6EP1933-2EC51-8AA0

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

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

Input	
supply voltage at DC rated value	24 V
input voltage	DC 22 ... 29 V
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 V ± 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 reversal	Yes

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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 input and output	No
operating resource protection class	Class III
protection class IP	IP20
Approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	No
● CSA approval	No
● cCSAus, Class 1, Division 2	No
● ATEX	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)	No
● DNV GL	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
● during operation	0 ... 60 °C; with natural convection
● during transport	-40 ... +70 °C
● during storage	-40 ... +70 °C
environmental category according to IEC 60721	Climate class 3K3, 5 … 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
● at input	24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
● at output	24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
● for rechargeable battery module	-
● for control circuit and status message	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	50 mm
● bottom	50 mm
● left	0 mm
● right	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

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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)

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