



SITOP DC UPS MODULE/24VDC/40A

SITOP Module 24 V DC USV/40

A Uninterrupted Power supply
without interface input: 24 V
DC/43 A output: 24 V DC/40 A

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	40 A; + approx. 2.6 A with empty battery

Mains buffering

type of energy storage	with batteries
design of the mains power cut bridging-connection	Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes!
charging current	1 A, 2 A
adjustable charging current maximum note	factory setting approx. 2 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	$V_{in} - \text{approx. } 0.5 \text{ V}$
startup delay time typical	1 s
voltage increase time of the output voltage typical	360 ms
output voltage in buffering mode at DC	19 ... 28.5 V
output current	
• rated value	40 A
• in normal operation	0 ... 40 A
• in buffering mode	0 ... 40 A
peak current	42 A
supplied active power typical	960 W

Efficiency

efficiency in percent	
• at rated output voltage for rated value of the output current typical	97.2 %
• in case of operation on rechargeable battery typical	96.9 %
power loss [W]	

• at rated output voltage for rated value of the output current typical	28.6 W
• in case of operation on rechargeable battery typical	33.6 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 "Bat/OK" 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"; Battery replacement required: LED red (alarm) flashing with approx. 0.25 Hz, floating changeover contact "Alarm/Bat" switching with approx. 0.25 Hz; 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 battery voltage < 20.4 VDC: 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	No
design of the interface	without
Safety	
galvanic isolation between input and output	No
operating resource protection class	Class III
certificate of suitability	
• CE marking	Yes
• as approval for USA	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
• relating to ATEX	-
• C-Tick	No
shipbuilding approval	ABS, DNV GL
protection class IP	IP20
EMC	
standard	
• for emitted interference	EN 55022 Class B
• for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
• during operation	-25 ... +60 °C; with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
environmental category acc. 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 0.33 ... 10 mm ² /22 ... 7 AWG
• at output	24 V DC: 2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
• for rechargeable battery module	24 V DC: 2 screw terminals for 0.33 ... 10 mm ² /22 ... 7 AWG
• for control circuit and status message	10 screw terminals for 0.5 ... 2.5 mm ² /20 ... 13 AWG
width of the enclosure	102 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	1.1 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	Battery module
MTBF at 40 °C	522 739 h
reference code acc. to IEC 81346-2	T
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

