SIEMENS

Data sheet 6EP1931-2FC21



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	Vin - approx. 0.5 V	
startup delay time typical	1s	
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
● in buffering mode	"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 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
protection class IP	IP20
Approvals	
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 No
shipbuilding approval	ABS, DNV GL
EMC	
standard	EN 55000 Ol D
for emitted interference for interference immunity	EN 55022 Class B
	EN 61000-6-2
environmental conditions	
ambient temperature	25 ±60 °C; with natural convection
during operationduring transport	-25 +60 °C; with natural convection -40 +85 °C
during transport 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 mm²/22 7 AWG
• at output	24 V DC: 2 screw terminals for 0.33 10 mm²/22 7 AWG
for rechargeable battery module	24 V DC: 2 screw terminals for 0.33 10 mm²/22 7 AWG
for control circuit and status message	10 screw terminals for 0.5 2.5 mm²/20 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)

