SIEMENS

Data sheet

6EP1931-2DC31



SITOP DC UPS MODULE/24VDC/6A/SERIAL

SITOP DC UPS module 24 V/6 A uninterruptible power supply with serial interface input: 24 V DC/6.85 A output: 24 V DC/6 A *Ex approval no longer available*

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	6 A; + approx. 0.6 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	0.2 A, 0.4 A
adjustable charging current maximum note	factory setting approx. 0.4 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	1 s
voltage increase time of the output voltage typical	60 ms
output voltage in buffering mode at DC	19 28.5 V
output current	
 rated value 	6 A
 in normal operation 	0 6 A
• in buffering mode	0 6 A
peak current	6.3 A
property of the output short-circuit proof	Yes
supplied active power typical	144 W
Efficiency	
efficiency in percent	
 at rated output voltage for rated value of the output current typical 	95 %
 in case of operation on rechargeable battery typical 	94.5 %
power loss [W]	
 at rated output voltage for rated value of the output current typical 	7 W
 in case of operation on rechargeable battery typical 	8 W
Protection and monitoring	
product function	
 reverse polarity protection against energy storage unit polarity reversal 	Yes

• reverse polarity protection against input voltage polarity	
reversal	

 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; 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 "Batt"; 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 "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%): LED red (alarm), floating changeover contact "Alarm/Bat" to setting "Alarm"; Energy storage > 85%: LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%): LED green (Bat > 85%), floating NO contact "Bat > 85%); LED green (Bat > 85%), floating NO contact "Bat > 85%); LED green (Bat > 85%), floating NO contact "Bat > 85%); LED green (Bat > 85%), floating NO contact "Bat > 85%); LED green (Bat > 85%), floating NO contact "Bat > 85%); LE

Yes

Interface	
product component PC interface	Yes
design of the interface	serial
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	Yes
 as approval for USA 	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
certificate of suitability	
EAC approval	Yes
• C-Tick	No
 shipbuilding approval 	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
American Bureau of Shipping Europe Ltd. (ABS)	Yes
• DNV GL	Yes
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 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 mm ² /17 11 AWG
• at output	24 V DC: 2 sciew terminals for 1 4 mm ² /17 11 AWG
for rechargeable battery module	24 V DC: 2 screw terminals for 1 4 mm ² /17 11 AWG
for control circuit and status message	10 screw terminals for 0.5 2.5 mm ² /20 13 AWG
width of the enclosure	50 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	0.45 kg Yes
product feature of the enclosure housing can be lined up	
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Battery module

MTBF at 40 °C	966 183 h
reference code according to IEC 81346-2	RB
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)