

SIPLUS DC-USV-MODUL 24V/40A  
 SIPLUS PS DC UPS module 24 V/40 A -25...+70 °C with conformal coating based on 6EP1931-2FC21 . Uninterruptible Power supply without interface Input: 24 V DC/43 A Output: 24 V DC/40 A



Figure similar

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	
<ul style="list-style-type: none"> <li>• in normal operation at DC Rated value</li> <li>• in buffering mode at DC Rated value</li> </ul>	24 V 24 V
Formula for output voltage	$V_{in} - \text{approx. } 0.5 \text{ V}$
ON-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	
<ul style="list-style-type: none"> <li>• Rated value</li> <li>• in normal operation</li> <li>• in buffering mode</li> </ul>	40 A 0 ... 40 A 0 ... 40 A
Peak current	42 A
Supplied active power typical	960 W

### Efficiency

Efficiency in percent	
<ul style="list-style-type: none"> <li>• at rated output current for rated value of the output current typical</li> <li>• in case of accumulator operation typical</li> </ul>	97.2 % 96.9 %
Power loss [W]	
<ul style="list-style-type: none"> <li>• at rated output current for rated value of the output current typical</li> <li>• in case of accumulator operation typical</li> </ul>	28.6 W 33.6 W

### Protection and monitoring

Product function	
<ul style="list-style-type: none"> <li>• reverse polarity protection against energy storage unit polarity reversal</li> <li>• reverse polarity protection against input voltage polarity reversal</li> </ul>	Yes Yes

### Signaling

Display version	
<ul style="list-style-type: none"> <li>• for normal operation</li> </ul>	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 entrance and outlet	No
Operating resource protection class	Class III
Certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• as approval for USA</li> <li>• relating to ATEX</li> <li>• C-Tick</li> </ul>	Yes cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 - No
Shipbuilding approval	GL
Protection class IP	IP20

## EMC

Standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B EN 61000-6-2
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## Operating data

Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	-25 ... +70 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
Relative humidity with condensation maximum	100 %; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
Resistance to biologically active substances conformity acc. to EN 60721-3-3	Yes; Compliant with EN 60721-3-3, Class 3B2 mold and fungal spores (except fauna); the supplied plug covers must remain in place on the unused interfaces during operation.
Resistance to chemically active substances conformity acc. to EN 60721-3-3	Yes; Compliant with EN 60721-3-3, Class 3C4 incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.
Resistance to mechanically active substances conformity acc. to EN 60721-3-3	Yes; Conformity with EN 60721-3-3, Class 3S4 incl. Sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

## Mechanics

Type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> </ul>	screw-type terminals 24 V DC: 2 screw terminals for 0.33 ... 10 mm <sup>2</sup> /22 ... 7 AWG
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<ul style="list-style-type: none"> <li>• at output</li> <li>• for battery module</li> <li>• for control circuit and status message</li> </ul>	<p>24 V DC: 2 screw terminals for 0.33 ... 10 mm<sup>2</sup>/22 ... 7 AWG</p> <p>24 V DC: 2 screw terminals for 0.33 ... 10 mm<sup>2</sup>/22 ... 7 AWG</p> <p>10 screw terminals for 0.5 ... 2.5 mm<sup>2</sup>/20 ... 13 AWG</p>
Width of the enclosure	102 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Required spacing	
<ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
Net weight	1.1 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Battery module
MTBF at 40 °C	522 739 h
Reference code acc. to DIN EN 81346-2	T
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)