# SIEMENS

#### Data sheet

### 6EP1931-2FC42



#### SITOP DC UPS MODULE/24VDC/40A/USB

SITOP DC UPS module 24 V/40 A uninterruptible power supply with USB interface input: 24 V DC/42.6 A output: 24 V DC/40 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	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> <li>in normal operation at DC rated value</li> </ul>	24 V
<ul> <li>in buffering mode at DC rated value</li> </ul>	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	360 ms
output voltage in buffering mode at DC	19 28.5 V
output current	
rated value	40 A
<ul> <li>in normal operation</li> </ul>	0 40 A
• in buffering mode	0 40 A
peak current	42 A
supplied active power typical	960 W
Efficiency	
efficiency in percent	
<ul> <li>at rated output voltage for rated value of the output current typical</li> </ul>	97.2 %
<ul> <li>in case of operation on rechargeable battery typical</li> </ul>	96.9 %
power loss [W]	
<ul> <li>at rated output voltage for rated value of the output current typical</li> </ul>	28.6 W
<ul> <li>in case of operation on rechargeable battery typical</li> </ul>	33.6 W
Protection and monitoring	
product function	
<ul> <li>reverse polarity protection against energy storage unit polarity reversal</li> </ul>	Yes
<ul> <li>reverse polarity protection against input voltage polarity reversal</li> </ul>	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, floating > 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
<ul> <li>in buffering mode</li> </ul>	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	green (bar > 00 %), noaling two contact bar > 00 closed
product component PC interface	Yes
design of the interface	USB
Safety	
galvanic isolation between input and output	Νο
operating resource protection class	Class III
	IP20
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	
<ul> <li>EAC approval</li> </ul>	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	
<ul> <li>for emitted interference</li> </ul>	EN 55022 Class B
for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C; with natural convection
<ul> <li>during transport</li> </ul>	-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 0.33 10 mm <sup>2</sup> /22 7 AWG
• at output	24 V DC: 2 screw terminals for 0.33 10 mm <sup>2</sup> /22 7 AWG
<ul> <li>for rechargeable battery module</li> </ul>	24 V DC: 2 screw terminals for 0.33 10 mm <sup>2</sup> /22 7 AWG
<ul> <li>for control circuit and status message</li> </ul>	
width of the enclosure	10 screw terminals for 0.5 2.5 mm <sup>2</sup> /20 13 AWG
	10 screw terminals for 0.5 2.5 mm <sup>2</sup> /20 13 AWG 102 mm
height of the enclosure	
	102 mm
height of the enclosure	102 mm 125 mm
height of the enclosure depth of the enclosure	102 mm 125 mm
height of the enclosure depth of the enclosure required spacing	102 mm 125 mm 125 mm
height of the enclosure depth of the enclosure required spacing • top	102 mm 125 mm 125 mm 50 mm
height of the enclosure depth of the enclosure required spacing • top • bottom	102 mm 125 mm 125 mm 50 mm 50 mm
height of the enclosure depth of the enclosure required spacing • top • bottom • left	102 mm 125 mm 125 mm 50 mm 50 mm 0 mm
height of the enclosure depth of the enclosure required spacing • top • bottom • left • right	102 mm 125 mm 125 mm 50 mm 50 mm 0 mm 0 mm
height of the enclosure depth of the enclosure required spacing • top • bottom • left • right net weight	102 mm 125 mm 125 mm 50 mm 50 mm 0 mm 0 mm 1.1 kg
height of the enclosure depth of the enclosure required spacing • top • bottom • left • right net weight product feature of the enclosure housing can be lined up	102 mm 125 mm 125 mm 50 mm 50 mm 0 mm 0 mm 1.1 kg Yes

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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