SIEMENS

Data sheet 6AG1931-2EC21-2AA0

SIPLUS PS DC-USV 24V/15A
SIPLUS PS DC-UPS 24 V/15 A -25...+60°C based on 6EP1931-2EC21

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	15 A; + approx. 1 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	0.35 A, 0.7 A
adjustable charging current maximum Note	factory setting approx. 0.7 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
ON-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	15 A
• in normal operation	0 ... 15 A
• in buffering mode	0 ... 15 A
Peak current	15.7 A
Property of the output Short-circuit proof	Yes
Supplied active power typical	360 W

Efficiency

Efficiency in percent	
• at rated output current for rated value of the output current typical	96.2 %
• in case of accumulator operation typical	96 %
Power loss [W]	
• at rated output current for rated value of the output current typical	14 W
• in case of accumulator operation typical	15 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 entrance and outlet	No
Operating resource protection class	Class III
Certificate of suitability	
• CE marking	Yes
Protection class IP	IP20

EMC	
Standard	
• for emitted interference	EN 55022 Class B
• for interference immunity	EN 61000-6-2

environmental conditions	
Ambient temperature in horizontal mounting position during operation	-25 ... +60; with natural convection
Ambient temperature during storage and transport	-40 ... +85
Installation altitude at height above sea level maximum	6 000 m
Ambient condition relating to ambient temperature - air pressure - installation altitude	In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m
Relative humidity with condensation acc. to IEC 60068-2-38 maximum	100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation
Chemical resistance to commercially available cooling lubricants	Yes; incl. diesel and oil droplets in the air
Resistance to biologically active substances conformity acc. to EN 60721-3-3	Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request
Resistance to chemically active substances conformity acc. to EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)
Resistance to mechanically active substances conformity acc. to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust
Resistance to biologically active substances conformity acc. to EN 60721-3-6	Yes; Class 6B2 mold, fungal, sponge spores (except fauna)
Resistance to chemically active substances conformity acc. to EN 60721-3-6	Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)
Resistance to mechanically active substances conformity acc. to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust

Coating for equipped printed circuit board acc. to EN 61086	Yes; Class 2 for high availability
Type of coating protection against pollution according to EN 60664-3	Yes; Type 1 protection
Type of test of the coating acc. to MIL-I-46058C	Yes; Discoloration of the coating during service life possible
Product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies acc. to IPC-CC-830A	Yes; Conformal Coating, Class A

Mechanics

Type of electrical connection	screw-type terminals
• at input	24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
• at output	24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
• for battery module	24 V DC: 2 screw terminals for 1 ... 4 mm²/17 ... 11 AWG
• for control circuit and status message	10 screw terminals for 0.5 ... 2.5 mm²/20 ... 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	0.4 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	791 139 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)