SIEMENS

Data sheet

6EP4134-3AB00-0AY0

SITOP UPS1600 24 V DC/10 A SITOP UPS1600 10 A Uninterrupted Power supply input: 24 V DC output: DC 24 V/10 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	21 25 V; Adjustable: 21 V, 21.5 V, 22 V, 22.5 V, 23 V, 24 V, 25 V DC or via software
Input current at rated input voltage 24 V Rated value	14 A; for max. charging current (3 A)

Mains buffering	
Type of energy storage	with batteries
Design of the mains power cut bridging-connection	Adjustable range using rotary coding switch: 0.5 min, 1 min, 2 min, 5 min, 10 min, 20 min, max. buffering time or via software
Charging current	0.1 A, 3 A
adjustable charging current maximum Note	Automatically depending on battery module

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. 0.01 x I
ON-delay time typical	60 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	10 A
• in normal operation	0 30 A
• in buffering mode	0 30 A
Peak current	30 A
Property of the output Short-circuit proof	Yes
Design of short-circuit protection	Limitation to 3 x I rated for 30 ms/min; through-conductivity for 1.5 x I rated for 5 sec/min
Supplied active power typical	240 W

Supplied active power typical	240 VV
Efficiency	
Efficiency in percent	
 at rated output current for rated value of the output current typical 	97.7 %
• in case of accumulator operation typical	97.7 %
Power loss [W]	
 at rated output current for rated value of the output current typical 	5.6 W
 in case of accumulator operation typical 	5.6 W

Protection and monitoring

Product function

• reverse polarity protection against energy storage unit polarity reversal

• reverse polarity protection against input voltage polarity reversal

Yes

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

Product component PC interface without Safety Galvanic isolation between entrance and outlet No Operating resource protection class Certificate of suitability • CE marking • as approval for USA • relating to ATEX ECEX EX nA nC IIC T4 Gc; ATEX (EX) II 30 EX nA nC IIC T4 Gc; CULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; CCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 • C-Tick Yes Type of certification CB-certificate Yes Shipbuilding approval ABS, DNV GL Protection class IP IP20 EMC Standard For emitted interference EN 55022 Class B EN 61000-6-2 For interference immunity EN 61000-6-2 Operating data Ambient temperature during operation -25 +70 °C; with natural convection during transport -40 +85 °C Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals 4 tinput 24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG	Interface	
Safety Galvanic isolation between entrance and outlet Operating resource protection class Certificate of suitability • CE marking • as approval for USA • relating to ATEX • C-Tick Type of certification CB-certificate Shipbuilding approval Protection class IP EMC Standard • for emitted interference • for interference immunity • during peration • during storage Environmental category acc. to IEC 60721 Mechanics Type of electrical connection Screw-type terminals No Class III No Culsus III Culsu	Product component PC interface	No
Galvanic isolation between entrance and outlet Operating resource protection class Class III Certificate of suitability	Design of the interface	without
Operating resource protection class Certificate of suitability CE marking as approval for USA relating to ATEX C-Tick C-Tick Type of certification CB-certificate Standard of or emitted interference of or interference immunity C-To interference immunity Coperating data Ambient temperature during toparatin during transport during storage Type of electrical connection Class III Yes CULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 LECEX EX nA nC IIC T4 GC; ATEX (EX) II 3G EX nA nC IIC T4 GC; CULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213. ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 Yes Type of certification CB-certificate Yes Shipbuilding approval ABS, DNV GL IP20 EMC Standard of or emitted interference of or interference immunity Cyc. in +70 °C; with natural convection during transport during storage Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	Safety	
Certificate of suitability CE marking as approval for USA relating to ATEX IECEX Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; CULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213.15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213. ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 C-Tick Yes Type of certification CB-certificate Yes Shipbuilding approval Protection class IP IP20 EMC Standard of or emitted interference EN 55022 Class B EN 61000-6-2 Operating data Ambient temperature of during operation -25 +70 °C; with natural convection -40 +85 °C environmental category acc. to IEC 60721 Mechanics Type of electrical connection screw-type terminals	Galvanic isolation between entrance and outlet	No
CE marking as approval for USA cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 relating to ATEX lECEX Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 • C-Tick Tyee of certification CB-certificate Yes Shipbuilding approval ABS, DNV GL Protection class IP IP20 EMC Standard • for emitted interference • for interference immunity EN 61000-6-2 Operating data Ambient temperature • during operation • during geration • during transport • during storage Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	Operating resource protection class	Class III
as approval for USA relating to ATEX relating to ATEX lECEx Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 c-Tick Type of certification CB-certificate Yes Shipbuilding approval ABS, DNV GL Protection class IP IP20 EMC Standard of or emitted interference for interference immunity EN 55022 Class B EN 61000-6-2 Operating data Ambient temperature of during operation during transport of during storage -40 +85 °C -40 +85 °C Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	Certificate of suitability	
relating to ATEX IECEx Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 C-Tick	• CE marking	Yes
cULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4 • C-Tick Type of certification CB-certificate Yes Shipbuilding approval Protection class IP EMC Standard • for emitted interference • for interference immunity EN 61000-6-2 Coperating data Ambient temperature • during operation • during transport • during storage Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	• as approval for USA	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Type of certification CB-certificate Shipbuilding approval Protection class IP EMC Standard • for emitted interference • for interference immunity EN 61000-6-2 Operating data Ambient temperature • during operation • during transport • during storage Environmental category acc. to IEC 60721 Mechanics Type of electrical connection ABS, DNV GL Protection ABS, DNV GL EN 55022 Class B EN 61000-6-2 Envi 55022 Class B Envi 61000-6-2 Climate class 3K3, no condensation	• relating to ATEX	cULus Class I, Div. 2 (ANSI/ISA-12.12.01-2015, CSA C22.2 No. 213-15) Group ABCD, T4; cCSAus (CSA C22.2 No. 213,
Shipbuilding approval Protection class IP IP20 EMC Standard • for emitted interference • for interference immunity EN 61000-6-2 Operating data Ambient temperature • during operation • during transport • during storage Environmental category acc. to IEC 60721 Mechanics Type of electrical connection ABS, DNV GL IP20 EN 55022 Class B EN 61000-6-2 En 55022 Class B EN 61000-6-2 Cissue and a second and a	• C-Tick	Yes
Protection class IP EMC Standard • for emitted interference • for interference immunity EN 61000-6-2 Operating data Ambient temperature • during operation • during transport • during storage Environmental category acc. to IEC 60721 Mechanics Type of electrical connection	Type of certification CB-certificate	Yes
Standard • for emitted interference • for interference immunity EN 55022 Class B EN 61000-6-2 Operating data Ambient temperature • during operation • during transport • during storage EN 55022 Class B EN 61000-6-2 Operating data Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals		ABS, DNV GL
Standard • for emitted interference • for interference immunity EN 61000-6-2 Operating data Ambient temperature • during operation • during transport • during storage EN 55022 Class B EN 61000-6-2 Operating data -25 +70 °C; with natural convection -40 +85 °C -40 +85 °C Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	Protection class IP	IP20
● for emitted interference ● for interference immunity EN 55022 Class B EN 61000-6-2 Operating data Ambient temperature ● during operation ● during transport ● during storage EN 55022 Class B EN 61000-6-2 Operating data -25 +70 °C; with natural convection -40 +85 °C -40 +85 °C Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	EMC	
● for interference immunity EN 61000-6-2 Operating data Ambient temperature ● during operation • during transport • during storage • during storage Environmental category acc. to IEC 60721 Environmental convection Mechanics Type of electrical connection EN 61000-6-2 Environmental convection -25 +70 °C; with natural convection -40 +85 °C Climate class 3K3, no condensation	Standard	
Operating data Ambient temperature • during operation • during transport • during storage Environmental category acc. to IEC 60721 Output Outpu	• for emitted interference	EN 55022 Class B
Ambient temperature • during operation • during transport • during storage • during storage Environmental category acc. to IEC 60721 Ambient temperature -25 +70 °C; with natural convection -40 +85 °C Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	• for interference immunity	EN 61000-6-2
 during operation during transport during storage during transport 40 +85 °C Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals 	Operating data	
 during transport during storage -40 +85 °C Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals 	Ambient temperature	
● during storage -40 +85 °C Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	during operation	-25 +70 °C; with natural convection
Environmental category acc. to IEC 60721 Climate class 3K3, no condensation Mechanics Type of electrical connection screw-type terminals	during transport	-40 +85 °C
Mechanics Type of electrical connection screw-type terminals	during storage	-40 +85 °C
Type of electrical connection screw-type terminals	Environmental category acc. to IEC 60721	Climate class 3K3, no condensation
	Mechanics	
• at input 24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG	Type of electrical connection	screw-type terminals
	• at input	24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG
• at output 24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG	• at output	24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG
• for battery module 24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG	• for battery module	24 V DC: 2 screw terminals for 0.2 6 mm²/24 13 AWG
• for control circuit and status message 14 screw terminals for 0.2 1.5 mm²/24 16 AWG	• for control circuit and status message	14 screw terminals for 0.2 1.5 mm²/24 16 AWG
Width of the enclosure 50 mm	Width of the enclosure	50 mm
Height of the enclosure 125 mm	Height of the enclosure	125 mm
	Depth 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	0.38 kg
Product feature of the enclosure housing for side-by-	Yes
side mounting	
Mounting type	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Battery module
MTBF at 40 °C	415 574 h
Reference code acc. to DIN EN 81346-2	Т
Other information	Specifications at rated input voltage and ambient temperature +25
	°C (unless otherwise specified)