SIEMENS

Data sheet 6EP4136-3AB00-0AY0

SITOP UPS1600 24 V DC/20 A
SITOP UPS1600 20 A Uninterrupted Power supply input: 24 V DC output: 24 V DC/20 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	25 A; for max. charging current (4 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, 4 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	20 A
• in normal operation	0 ... 60 A
• in buffering mode	0 ... 60 A
Peak current	60 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	480 W

Efficiency

Efficiency in percent	
• at rated output current for rated value of the output current typical	98.2 %
• in case of accumulator operation typical	98.2 %
Power loss [W]	
• at rated output current for rated value of the output current typical	8.6 W
• in case of accumulator operation typical	8.6 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
• as approval for USA	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
• 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	ABS, DNV GL
Protection class IP	IP20

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

Operating data	
Ambient temperature	
• during operation	-25 ... +70 °C; with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Environmental category acc. to IEC 60721	Climate class 3K3, no condensation

Mechanics	
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
• 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
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	0.39 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	408 654 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)