SIEMENS

Data sheet 6EP4136-3AC00-0AY0

SITOP UPS1600/DC/DC24V/20A/EX

SITOP UPS1600 EX 20 A uninterruptible power supply input: 24 V DC output: 24 V DC/20 A

Input	
supply voltage at DC rated value	24 V
input voltage	DC 21 ... 29 V
adjustable response value voltage for buffer connection preset	21.5 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
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
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. 0.2 V
startup delay time typical	60 ms
voltage increase time of the output voltage typical	60 ms
output voltage in buffering mode at DC	18.5 ... 27 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 voltage for rated value of the output current typical	97.7 %
● in case of operation on rechargeable battery typical	97.7 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	10 W
● in case of operation on rechargeable battery typical	10 W
Protection and monitoring	
product function	
● reverse polarity protection against energy storage unit	Yes

polarity reversal	
● 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 input and output	No
operating resource protection class	Class III
protection class IP	IP20
Approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	No
● CSA approval	No
● cCSAus, Class 1, Division 2	No
● ATEX	Yes
certificate of suitability	
● IECEx	Yes
certificate of suitability	
● shipbuilding approval	No
shipbuilding approval	available soon
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● DNV GL	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
● during operation	-25 ... +70 °C; with natural convection
● during transport	-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 0.2 ... 6 mm²/24 ... 13 AWG
● at output	24 V DC: 2 screw terminals for 0.2 ... 6 mm²/24 ... 13 AWG
● for rechargeable 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	139 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 can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Battery module
MTBF at 40 °C	408 654 h
reference code according to IEC 81346-2	RB
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)