SIEMENS

Data sheet 6EP4137-3AB00-0AY0

SITOP UPS1600/DC/24VDC/40A

SITOP UPS1600 40 A uninterruptible power supply input: 24 V DC output: 24 V DC/40 A *Ex approval no longer available*

Input	
supply voltage at DC rated value	24 V
voltage curve at input	DC
input voltage range	21 ... 29 V DC
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	46 A; for max. charging current (5 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, 5 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	40 A
● in normal operation	0 ... 120 A
● in buffering mode	0 ... 120 A
peak current	120 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	960 W
Efficiency	
efficiency in percent	
● at rated output voltage for rated value of the output current typical	98.5 %
● in case of operation on rechargeable battery typical	98.5 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	15 W
● in case of operation on rechargeable battery 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 input and output	No
operating resource protection class	Class III
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
● CSA approval	Yes
● cCSAus, Class 1, Division 2	No
● ATEX	No
type of certification CB-certificate	Yes
certificate of suitability	
● EAC approval	Yes
● C-Tick	Yes
● shipbuilding approval	Yes
shipbuilding approval	ABS, DNV GL
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	Yes
● DNV GL	Yes
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 acc. 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 0.5 ... 16 mm²/20 ... 6 AWG
● at output	24 V DC: 2 screw terminals for 0.5 ... 16 mm²/20 ... 6 AWG
● for rechargeable battery module	24 V DC: 2 screw terminals for 0.5 ... 16 mm²/20 ... 6 AWG
● for control circuit and status message	14 screw terminals for 0.2 ... 1.5 mm²/24 ... 16 AWG

width of the enclosure	70 mm
height of the enclosure	139 mm
depth of the enclosure	150 mm
required spacing	
● top	50 mm
● bottom	50 mm
● left	0 mm
● right	0 mm
net weight	0.65 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	372 738 h
reference code acc. to IEC 81346-2	T
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)