



SITOP UPS1600/DC/24VDC/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 at 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)
memory	
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
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	$V_{in} - \text{approx. } 0.2 \text{ V}$
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 $3 \times I$ rated for 30 ms/min; through-conductivity for $1.5 \times I$ rated for 5 sec/min
charging current	0.1 A, 4 A
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
supplied active power typical	480 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
display version	<p>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</p> <p>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</p>
interfaces	
product component PC interface	No
product function communication function	Yes
design of the interface	without
safety	
galvanic isolation between input and output	No
operating resource protection class	Class III
protection class IP standard	IP20
• for emitted interference	EN 55022 Class B
• for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	<p>• CE marking</p> <p>• UL approval</p> <p>• CSA approval</p> <p>• UKCA marking</p>
MTBF at 40 °C	408 654 h
standards, specifications, approvals hazardous environments	
certificate of suitability	<p>• IECEx</p> <p>• ATEX</p> <p>• cCSAus, Class 1, Division 2</p> <p>• CCC for hazardous zone according to GB standard</p>
standards, specifications, approvals marine classification	
shipbuilding approval	No
Marine classification association	<p>• American Bureau of Shipping Europe Ltd. (ABS)</p> <p>• Det Norske Veritas (DNV)</p>
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	<p>• total</p> <p>• during manufacturing</p> <p>• during operation</p> <p>• after end of life</p>
ambient conditions	
ambient temperature	<p>• during operation</p> <p>• during transport</p> <p>• during storage</p>
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
connection method	
type of electrical connection	<p>• at input</p> <p>• at output</p> <p>• for rechargeable battery module</p> <p>• for control circuit and status message</p>

mechanical data			
width x height x depth of the enclosure		50 x 139 x 125 mm	
installation width x mounting height		50 mm x 239 mm	
required spacing			
<ul style="list-style-type: none"> • top • bottom • left • right 		50 mm 50 mm 0 mm 0 mm	
fastening method		Snaps onto DIN rail EN 60715 35x7.5/15	
<ul style="list-style-type: none"> • DIN-rail mounting • S7 rail mounting • wall mounting 		Yes No No	
housing can be lined up		Yes	
net weight		0.39 kg	
accessories			
electrical accessories		Battery module	
further information internet links			
internet link			
<ul style="list-style-type: none"> • to website: Industry Mall • to web page: selection aid TIA Selection Tool • to web page: power supplies • to website: CAx-Download-Manager • to website: Industry Online Support 		https://mall.industry.siemens.com https://www.siemens.com/tstcloud https://siemens.com/sitop https://siemens.com/cax https://support.industry.siemens.com	
additional information			
other information		Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)	
security information			
security information		<p>Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)</p>	
Classifications			
		Version	Classification
		eClass	14
		eClass	12
		eClass	9.1
		eClass	9
		eClass	8
		eClass	7.1
		eClass	6
		ETIM	10
		ETIM	9
		ETIM	8
		ETIM	7
Approvals Certificates			
General Product Approval			For use in hazardous locations



[Manufacturer Declaration](#)



EG-Konf.



IECEx

For use in hazardous locations

Maritime application

Environment



[CCC-Ex](#)



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