



SITOP UPS1600 24 V DC/20 A
 SITOP UPS1600 20A UNINTERRUPTIBLE POWER SUPPLY
 INPUT: 24 V DC OUTPUT: 24 V DC/20 A

Input	
Supply voltage for DC Rated value	24 V
Voltage curve at input	DC
input voltage range	22 ... 29 V DC
Mains buffering	
Type of energy storage	with batteries
Charging current	
• 1	0.1 A
• 2	4 A
Output	
Output voltage	
• in normal operation for DC Rated value	24 V
• in buffering mode for DC Rated value	24 V
Formula for output voltage	$V_{in} - \text{approx. } 0.01 \times I$
ON-delay time typical	60 s
Voltage increase time of the output voltage typical	60 ms
Output current Rated value	20 A
Property of the output Short-circuit proof	Yes
Design of short-circuit protection	Limitation to $3 \times I$ rated for 30 ms; through-conductivity for $1.5 \times I$ rated for 5 sec/min
Active power supplied typical	480 W
Efficiency	
Efficiency in percent	

<ul style="list-style-type: none"> • at rated output current at rated output current typical 	98.2 %
<ul style="list-style-type: none"> • in case of accumulator operation typical 	98.2 %
Active power loss	
<ul style="list-style-type: none"> • at rated output current at rated output current typical 	8.6 W
<ul style="list-style-type: none"> • in case of accumulator operation typical 	8.6 W

Protection and monitoring

Product function	
<ul style="list-style-type: none"> • reverse polarity protection against energy storage unit polarity reversal 	Yes
<ul style="list-style-type: none"> • reverse polarity protection against input voltage polarity reversal 	Yes

Signaling

Display version	
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • UL approval 	Yes
<ul style="list-style-type: none"> • as approval for USA 	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
<ul style="list-style-type: none"> • C-Tick 	Yes
Type of certification CB-certificate	Yes
Shipbuilding approval	available soon
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
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C

Mechanics

Type of electrical connection	screw-type terminals
• at input	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG
• at output	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG
• for battery module	24 V DC: 2 screw terminals for 0.2 ... 6 mm ² /24 ... 13 AWG
• for control circuit and status message	14 screw terminals for 0.2 ... 1.5 mm ² /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 property 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
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)