



SITOP DC UPS MODULE/24VDC/40A/USB

SITOP DC UPS module 24 V/40 A uninterruptible power supply with USB interface input: 24 V DC/42.6 A 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   | 22 ... 29 V DC   |
| adjustable response value voltage for buffer connection preset          | 22.5 V   |
| adjustable response value voltage for buffer connection                 | 22 ... 25.5 V; Adjustable in 0.5 V increments  |
| input current at rated input voltage 24 V rated value                   | 40 A; + approx. 2.6 A with empty battery   |
| Mains buffering   |  |
| type of energy storage  | with batteries   |
| design of the mains power cut bridging-connection                       | Dependent on connected battery and load current, see selection table battery module and mains buffering times as well as the relevant important information notes! |
| charging current  | 1 A, 2 A   |
| adjustable charging current maximum note                                | factory setting approx. 2 A  |
| 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  | $V_{in} - \text{approx. } 0.5 \text{ V}$   |
| startup delay time typical  | 1 s  |
| voltage increase time of the output voltage typical                     | 360 ms   |
| output voltage in buffering mode at DC                                  | 19 ... 28.5 V  |
| output current  |  |
| • rated value   | 40 A   |
| • in normal operation   | 0 ... 40 A   |
| • in buffering mode   | 0 ... 40 A   |
| peak current  | 42 A   |
| supplied active power typical   | 960 W  |
| Efficiency  |  |
| efficiency in percent   |  |
| • at rated output voltage for rated value of the output current typical | 97.2 %   |
| • in case of operation on rechargeable battery typical                  | 96.9 %   |
| power loss [W]  |  |
| • at rated output voltage for rated value of the output current typical | 28.6 W   |
| • in case of operation on rechargeable battery typical                  | 33.6 W   |
| Protection and monitoring   |  |
| product function  |  |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>reverse polarity protection against energy storage unit polarity reversal</li> </ul> | Yes  |
| <ul style="list-style-type: none"> <li>reverse polarity protection against input voltage polarity reversal</li> </ul>       | Yes  |
| <b>Signaling</b>  |  |
| display version   |  |
| <ul style="list-style-type: none"> <li>for normal operation</li> </ul>  | 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"> <li>in buffering mode</li> </ul>   | 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   |
| <b>Interface</b>  |  |
| product component PC interface  | Yes  |
| design of the interface   | USB  |
| <b>Safety</b>   |  |
| galvanic isolation between input and output   | No   |
| operating resource protection class   | Class III  |
| protection class IP   | IP20   |
| <b>Approvals</b>  |  |
| certificate of suitability  |  |
| <ul style="list-style-type: none"> <li>CE marking</li> </ul>  | Yes  |
| <ul style="list-style-type: none"> <li>UL approval</li> </ul>   | Yes  |
| <ul style="list-style-type: none"> <li>as approval for USA</li> </ul>   | cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259   |
| certificate of suitability  |  |
| <ul style="list-style-type: none"> <li>EAC approval</li> </ul>  | Yes  |
| <ul style="list-style-type: none"> <li>C-Tick</li> </ul>  | No   |
| <ul style="list-style-type: none"> <li>shipbuilding approval</li> </ul>   | Yes  |
| shipbuilding approval   | ABS, DNV GL  |
| Marine classification association   |  |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>                             | Yes  |
| <ul style="list-style-type: none"> <li>DNV GL</li> </ul>  | Yes  |
| <b>EMC</b>  |  |
| standard  |  |
| <ul style="list-style-type: none"> <li>for emitted interference</li> </ul>  | EN 55022 Class B   |
| <ul style="list-style-type: none"> <li>for interference immunity</li> </ul>   | EN 61000-6-2   |
| <b>environmental conditions</b>   |  |
| ambient temperature   |  |
| <ul style="list-style-type: none"> <li>during operation</li> </ul>  | -25 ... +60 °C; with natural convection  |
| <ul style="list-style-type: none"> <li>during transport</li> </ul>  | -40 ... +85 °C   |
| <ul style="list-style-type: none"> <li>during storage</li> </ul>  | -40 ... +85 °C   |
| environmental category according to IEC 60721   | Climate class 3K3, 5 ... 95% no condensation   |
| <b>Mechanics</b>  |  |
| type of electrical connection   | screw-type terminals   |
| <ul style="list-style-type: none"> <li>at input</li> </ul>  | 24 V DC: 2 screw terminals for 0.33 ... 10 mm <sup>2</sup> /22 ... 7 AWG   |
| <ul style="list-style-type: none"> <li>at output</li> </ul>   | 24 V DC: 2 screw terminals for 0.33 ... 10 mm <sup>2</sup> /22 ... 7 AWG   |
| <ul style="list-style-type: none"> <li>for rechargeable battery module</li> </ul>   | 24 V DC: 2 screw terminals for 0.33 ... 10 mm <sup>2</sup> /22 ... 7 AWG   |
| <ul style="list-style-type: none"> <li>for control circuit and status message</li> </ul>                                    | 10 screw terminals for 0.5 ... 2.5 mm <sup>2</sup> /20 ... 13 AWG  |
| width of the enclosure  | 102 mm   |
| height of the enclosure   | 125 mm   |
| depth of the enclosure  | 125 mm   |
| required spacing  |  |
| <ul style="list-style-type: none"> <li>top</li> </ul>   | 50 mm  |
| <ul style="list-style-type: none"> <li>bottom</li> </ul>  | 50 mm  |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• left</li> <li>• right</li> </ul> | 0 mm  |
| net weight  | 0 mm  |
| product feature of the enclosure housing can be lined up                  | 1.1 kg  |
| fastening method  | Yes   |
| electrical accessories  | Snaps onto DIN rail EN 60715 35x7.5/15  |
| MTBF at 40 °C   | Battery module  |
| reference code according to IEC 81346-2                                   | 493 340 h   |
| other information   | T   |
|   | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

